RESEARCH SYNTHESIS

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Satisficing in surveys: A systematic review of the literature

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Satisficing in surveys: A systematic review

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Satisficing in surveys: A systematic review of the literature

ABSTRACT

Herbert Simon's (1956) concept of satisficing provides an intuitive explanation for the reasons why respondents to surveys sometimes adopt response strategies that can lead to a reduction in data quality. As such, the concept rapidly gained popularity among researchers after it was first introduced to the field of survey methodology by Krosnick and Alwin (1987), and has become a widely cited buzzword linked to different forms of response error. In this article, we present the findings of a systematic review involving a content analysis of journal articles published in English-language journals between 1987 and 2015 that have drawn on the satisficing concept to evaluate survey data quality. Based on extensive searches of online databases, and an initial screening exercise to apply the study's inclusion criteria, 141 relevant articles were identified. Guided by the theory of survey satisficing described by Krosnick (1991), the methodological features of the shortlisted articles were coded, including the indicators of satisficing analyzed, the main predictors of satisficing, and the presence of main or interaction effects on the prevalence of satisficing involving indicators of task difficulty, respondent ability and respondent motivation. Our analysis sheds light on potential differences in the extent to which satisficing theory holds for different types of response error, and highlights a number of avenues for future research.

BACKGROUND

Measurement error —defined as the 'observational gap between the ideal measurement and the response obtained' (Groves et al. 2009, 51)— is often considered to be the most problematic source of survey error (Biemer and Lyberg 2003; Biemer 2010, 823). This is partly because measurement quality is so fundamental to the validity of the conclusions drawn from a survey (Alwin 1991, 5), and partly because the extent of its damaging effects cannot easily be ascertained or corrected. Error can reduce the overall efficiency of the data by introducing 'noise' into measures of single variables and their relations with other variables, and it can lead to a substantial over- or under-estimation of the prevalence of phenomena of interest (Alwin 2007).

Despite the threat it poses to the overall quality of data, measurement error can be reduced at relatively low cost compared to other survey errors (Fowler 1995, 150) by understanding its causes and taking remedial action (e.g. *ibid.*; Foddy 1993; Payne 1951). Contributions from cognitive psychology have played a prominent role in this endeavor (e.g. Sudman, Bradburn and Schwarz 1996; Tourangeau, Rips and Rasinski 2000; Schwarz 2007), emphasizing the mental processes by which respondents complete the task of answering survey questions, the factors that can inhibit optimal processing, and, hence, offering clues as to how to improve question design (Willis 2004). The theory of satisficing (Krosnick and Alwin 1987; Krosnick 1991), which emphasizes the role of motivational and ability factors in determining how thoroughly cognitive processes are executed, provides a compelling explanation for how certain types of response errors may sometimes arise. Over the past three decades, researchers have been drawing on the framework provided by satisficing theory, as a

means of indirectly assessing the relative extent of measurement error under divergent conditions and investigating its correlates. This work has contributed a substantial body of empirical findings to knowledge about what affects response quality and possible remedies. The aim of this paper is to systematically review this literature, in order to summarize what has been learned, and to identify fruitful avenues for future research. Before describing the aims in greater detail and methods used, we briefly discuss different sources of measurement error, and present the key tenets of satisficing theory.

Sources of measurement error

Measurement error arises from different sources: characteristics of the mode of data collection and the survey setting, the respondent, and the design of the questionnaire (Biemer and Lyberg 2003; Groves et al. 2009). Understanding of how the questionnaire influences response quality has largely been shaped by the findings of early contributors to the field of public opinion research, who pioneered the use of split ballot experiments to test the effects of formulating questions in different ways (e.g. Cantril 1940; Payne 1951). Later, researchers (notably, Bishop, Oldendick and Tuchfarber 1978; Kalton, Collins and Brook 1978; Schuman and Presser 1981) started to amass and replicate experimental evidence demonstrating how seemingly innocuous variations in wording or response alternatives could affect response distributions, highlighting the role of task characteristics in respondents' answers to survey questions.

Building on this foundational work, cognitive psychologists focused on the respondent's contribution to response quality, devising models of the mental

processes involved in answering survey questions (originally, Cannell, Miller and Oksenburg 1981; later elaborated by e.g. Tourangeau et al. 2000) typically identify four[1] main stages: 1) comprehending the survey question; 2) searching memory to retrieve considerations relevant to the answer; 3) integrating the retrieved information into a judgment; and 4) selecting from the available response categories. Errors can arise at each stage (*ibid.*), based on a variety of influences, including natural limits on respondents' working memory, processing biases, as well as motivational factors, such as deliberately editing responses that may seem threatening to reveal (as in social desirability bias), or using heuristics or other shortcuts to arrive at a satisfactory, but possibly invalid answer (Tourangeau et al. 2000). The design of the questionnaire exerts an influence on the response process where questions are difficult to understand, present recall challenges, require complex mental calculations, or offer ambiguous, or potentially sensitive response alternatives (*ibid.*). Idiosyncratic interviewing styles and interviewer characteristics can similarly affect how respondents answer, either directly or indirectly (Biemer and Lyberg 2003; Holbrook, Green and Krosnick 2003). Meanwhile, other mode characteristics —such as computer-assisted or web-based administration, or being restricted to audio-only communication channels (Couper 2011), can influence how response tasks are executed and, hence, the quality of respondents' answers.

Understanding the relative influence of these different sources of measurement error, and the psychological mechanisms by which they affect response is key to finding optimal strategies for mitigating their effects. However, part of the challenge in predicting when measurement error will occur, and the particular form it will take,

[1] Some authors refer to a fifth stage, prior to comprehension, involving initial perception of the survey question (e.g. Dillman, Smyth and Christian 2014).

stems from the complex interaction between each of the components involved. The theory of satisficing provides a framework for understanding this interaction.

The Theory of Satisficing

Krosnick and Alwin (1987, 1988, 1989), and Krosnick (1991) first developed the application of Herbert Simon's (1956) concepts of 'satisficing' and 'optimizing' to the field of survey methodology (although see Tourangeau 1984). Satisficing refers to the expenditure of minimum effort to generate a satisfactory response, compared with expending a great deal of effort to generate a 'maximally valid response' (Alwin 1991, 17–18). Krosnick (1991, 215–220) distinguished between stronger and weaker forms of satisficing. In 'weak' satisficing', respondents execute all the different stages of processing, but do so less thoroughly, resulting in response behaviors such as *selecting the first acceptable response alternative* (manifesting as response order (primacy and recency) effects); and *acquiescence* (the tendency to agree with assertions). By contrast, in 'strong satisficing', one or more stages of processing is skipped altogether, producing response errors such as *endorsing the status quo* (a preference for the middle 'keep things the same' alternative in questions asking about support for policy change); *non-differentiation* (the tendency to select the same point on a rating scale to rate multiple items presented with the same response alternatives); saying *'don't know'* instead of expressing an opinion; and *'mental coin-flipping'* (selecting response alternatives at random).

Each type of response error is said to be 'more likely to occur under the conditions that foster satisficing' (1991, 220), which are a function of three mediating factors: 1) high task difficulty; 2) low respondent ability; and 3) low motivation to perform the response task. To the extent that questionnaire design features, mode (including

interviewers) and respondent characteristics contribute to these conditions, satisficing may result, with deleterious effects on response quality. Hypothetically, any variable indicating these conditions can exert a main effect on the prevalence of different types of response effect, and according to Krosnick, these main effects may be additive, but 'their relations are more likely to be multiplicative' (1991, 225). Formally, performance of the response task depends on the ratio of task difficulty and the product of respondent ability and motivation (*ibid.*):

$$p(\text{Satisficing}) = \frac{a_1(\text{Task difficulty})}{a_2(\text{Ability}) \times a_3(\text{Motivation})}$$

Testing the theory, therefore, implies measuring these different elements in a given survey context and assessing the extent to which the hypothesized model holds.

THE PRESENT STUDY

At first sight, the accumulated literature on satisficing in surveys can appear unwieldy. The findings are mixed, and the possibility to generalize from them is hindered by the variety of methods used for constructing indicators of response quality (which tend to be used as proxies for satisficing). It is also unclear whether the evidence, taken as a whole, is consistent with the theory. The present study was designed to address these concerns through a systematic review. The key objective of the review was to *describe and summarize* the existing research findings relating to satisficing theory by:

1. Identifying published research that has drawn on the theory of satisficing as a framework for investigating response quality in surveys;
2. Systematically recording key features of the research, including the types of response effects hypothesized to result from satisficing, variables hypothesized to predict satisficing, and the presence of main and interaction

effects of predictors on different types of response effect that either support or contradict satisficing theory.

In so doing, we aim to draw conclusions about the compatibility of satisficing theory with the empirical evidence and to assist others working in this area to develop clearer recommendations about the optimal ways to identify response errors in survey data, and to identify their underlying causes.

METHODS

We designed our systematic review based on best practice in the field of health sciences and evidence-based medicine (see Torgerson 2003; Higgins and Green 2011), as well as on guidelines for using the method in the social sciences (see Petticrew and Roberts 2005). The design entailed two main stages: 1) study identification and selection; and 2) data extraction and synthesis. Both involved content analytic procedures in which features of the texts were systematically coded using a purpose-designed coding frame (see Table A1 in the Online Appendix).

Stage 1: Study identification and selection

Initially, general and specialized bibliographic databases were searched using a combination of search terms (see below) to identify records referring either to 'satisficing' in relation to survey measurement, or one of the original publications in which the theory was first developed (specifically, Krosnick and Alwin 1987, and Krosnick 1991)[2]. The aim at this stage was to identify as many citations as possible to

[2]Because the study was carried out over the course of several years, the searches were updated intermittently, using the same search strategies and search terms.

assess the scale of the review, including work subjected to editorial control or peer review, published in academic journals and books, and grey literature, such as institutional or technical reports, working papers, conference proceedings, dissertations and theses. We placed no restrictions on language (except for using English search terms).

The following search engines were used: the Thomson Reuters ISI Web of Science Databases, a collection of seven databases, including the Social Sciences Citation Index and the Conference Proceedings Citation Index – Social Sciences and Humanities. The Web of Science enables cited reference searching, which was used to initiate the search, to identify records citing a) Krosnick and Alwin 1987; and b) Krosnick 1991. The same databases were then searched for literature containing combinations of the terms 'satisficing', 'satisfice', 'survey', and 'questionnaire' (details of the precise search terms used in each database are available in Table A2 in the Online Appendix). The same search strings were used to search other academic databases, including Scirus, PsychInfo, and Academic Search Premier (occasional modifications to the search strings used were necessary depending on the contents of the database and how each search engine worked). The search was expanded using the same search terms in Google Scholar.

In addition to these large-scale database and web-based searches, online search engines for leading academic journals publishing articles in the field of survey methodology were targeted, as well as working paper series, and conference proceedings of the American Statistical Associations Survey Methods Section.

Inclusion criteria

The searches produced a total of 3581 records (before removing duplicates). After duplicates and obviously irrelevant reports were removed, a total of 1526 unique records remained, including journal articles, books and book chapters, dissertations, working papers and reports. These records (abstracts, and where available and necessary, full texts) were further screened to identify studies that met the inclusion criteria and were eligible for in-depth review, and to verify that they were fully in scope (i.e. included the relevant search terms). The inclusion criteria were applied sequentially, as follows:

1. English-language research articles published in academic journals between the years of 1987 and 2015.[3]
2. Articles with a methodological focus (as opposed to being focused solely on substantive research questions) —e.g. studies comparing response quality in different modes of data collection (e.g. Holbrook et al. 2003; Chang and Krosnick 2009); studies involving comparisons across variant question formulations (e.g. Bishop and Smith 2001; Gilbert 2015).
3. Articles presenting new findings based on empirical data and analysis (as opposed to non-empirical papers with a theoretical focus —e.g. Tourangeau 2003; Couper 2011).
4. Articles presenting comparisons of response quality across groups assumed to differ in terms of their exposure to conditions hypothesized to foster satisficing. This criterion applied to studies that were guided explicitly by the framework provided by the theory of satisficing, as well

[3] The search results included records of journal articles published in 2015 (or earlier) through Advance Access, but which were finally published in 2016. Because the data extraction procedure was still ongoing during 2016, three Advanced Access articles first published in 2015 were later excluded from the shortlist to ensure consistent application of the inclusion criterion relating to publication date.

as to studies that only referred briefly to the theory but were still concerned with variations in response quality. This distinction was not always clear-cut, so both types of study were retained in the sample for the second, more detailed stage of coding. Any article making only a passing reference to one of the search terms, or briefly describing the theory without presenting relevant new empirical evidence was excluded.

Stage 2: Data extraction and synthesis

Having completed this preliminary screening, the shortlisted studies were subjected to the second 'data extraction' stage of coding, which focused on documenting the methodological features of the research. The main aims were to 1) document the main features of the research designs; 2) identify which indicators of satisficing were analyzed and how they were constructed, as well as which independent variables (i.e. correlates or predictors of satisficing) were analyzed; and 3) record the main findings of the research relating to survey satisficing. For this, a purpose-designed coding frame was developed, consisting mainly of closed, pre-coded items, based on the theoretical model described by Krosnick (1991). The following variables were coded:

- Type of research design (experiment vs. non-experimental survey data)
- Mode(s) of data collection
- Indicators of weak satisficing (Primacy, recency, acquiescence)
- Indicators of strong satisficing (Endorsing the status quo, non-differentiation, don't know/ no-opinion, random reporting)
- Other indicators of data quality (item-nonresponse, middle alternatives, others)
- Predictors of satisficing (task difficulty, respondent ability, respondent motivation)

- For each of the latter, indicators used, including those mentioned by Krosnick (1991, 220–225), and any others not mentioned by Krosnick.
- Main effects and interaction effects; whether effects were consistent with or contradicted satisficing theory

The coding frame was initially set up in an Excel spreadsheet, but was later programmed as an online questionnaire in Qualtrics to improve the usability and reliability of the instrument. The data were combined and analyzed in SPSS.

Intercoder Reliability

In content analysis, assessments of intercoder reliability (or more specifically, rates of intercoder agreement —Tinsley and Weiss 2000) are key for testing and validating the coding scheme (Kolbe and Burnett 1991; Neuendorf 2002), as well as for providing reassurance as to the validity of the results. All four authors were involved in both stages of coding. Each coder independently coded a sample of articles assigned only to them, plus a randomly-selected subset of articles assigned to one of the other coders to permit an analysis of intercoder reliability. At the study selection stage, 32% of the articles retrieved from the searches were reviewed by two out of the four coders. At the data extraction stage, 23% of the shortlisted articles were double-coded. We report two indices of intercoder reliability: 1) the rate of agreement between coders, which has the advantage of being intuitive, but on its own is not considered adequate as it may give a misleading estimate of reliability between coders (Lombard, Snyder-Duch and Campanella Bracken 2010); and 2) Cohen's kappa (as recommended, for example, by Landis and Koch 1977; Dewey 1983), which offers a number of advantages as an agreement index, including the fact that it accounts for

levels of agreement that would be expected by chance.

The upper half of Table 1 shows rates of agreement between coders for our three main inclusion criteria. For the 'nature of reference' code (which refers to the nature of the reference to satisficing theory and the relevance of the empirical evidence presented), we permitted similar values to count as agreement. The main distinction of interest was between articles in which the search terms were only mentioned briefly, and articles presenting relevant empirical evidence relevant to the theory. The rates of agreement between coders for these codes were 93.7% for methodological vs. substantive (k=0.84), 96.4% (k=*0.85*) for empirical vs. theoretical, and 97.0% (k=0.91) for nature of reference. These values were deemed to be more than acceptable. In any case, coders discussed and resolved all disagreements over the application of the inclusion criteria to ensure no article was incorrectly excluded from the shortlist.

–x- Table 1 about here –x-

The lower half of Table 1 shows the intercoder reliability indices for a selection of codes from the coding scheme used at the data extraction stage. Here, the rates of agreement varied more, ranging from 66.7% (k=0.35) for whether the research analyzed independent variables that measured respondent motivation, to 96.8% (k=0.92) for whether the research design was single- or mixed-mode. Overall, the mean percentage agreement across all variables for which intercoder reliability was assessed was 83.3%. The first author adjudicated on all discrepancies between coders, by referring to the article and deciding on a revised set of final codes. Modifications were made in the online version of the coding frame to improve reliability.

RESULTS

After establishing the eligibility of the citations generated by our searches, we identified a total of 951 unique English language journal articles referencing the search terms. After an initial 'rush' of articles citing the search terms in the year following the publication of Krosnick's (1991) article, the number of articles citing the search terms remained reasonably constant until the mid 2000s (on average, 27 articles per year). At this time, there was a sharp increase in the number of publications (on average, 56 articles per year during the past decade), and, apart from a dip between 2011 and 2013, the number of publications citing the search terms has continued to rise. In 2015, there were 96 citations (the number of journal articles citing the search terms by year of publication for each subsample retained are shown in Figure 1).

-x- Figure 1 about here –x-

Of the 951 journal articles, 544 were excluded for having a substantive, non-methodological focus; and a further 55 were excluded for having a purely theoretical, non-empirical content (see Figure 2 for a summary). This left 352 articles with a methodological, empirical focus (one of which we were unable to access, so it was not coded further). Of these, 207 articles were excluded because they contained only a passing reference to one of the search terms. A total of 144 were articles that presented new empirical data from studies comparing data quality between groups, either guided explicitly (n=87) or not explicitly (n=57) by the theory of satisficing

(three of which were excluded because their final publication date was 2016). Thus, the remaining analysis is based on this combined set of 141 articles.

-x- Figure 2 about here –x-

Characteristics of the shortlisted articles

The 141 shortlisted articles came from a wide range of publications (a total of 59 different journals spanning different academic disciplines), demonstrating the widespread interest in assessing survey response quality and the reach of satisficing theory (see Table 2). A majority of the studies (65.3%) presented analyses of data from purpose-designed split-ballot survey experiments. The remaining studies were based on regular survey data (31.2%) or other data sources, including cognitive interviews (e.g. Darker and French 2009; Wagner and Zeglovitz 2014), eye-tracking studies (e.g. Galesic et al. 2008), register data (e.g. Brockington 2003), and paper-and-pencil questionnaires administered in schools (Wicker, Park, McCann and Hamman 1995) (3.6%). Data mostly came from single mode surveys (in 65.2% of the studies), while 22.7% of the studies involved experimental comparisons between two or more modes, and a further 12.1% involved replications in other modes. In terms of the modes analyzed, more than half of the studies (51.7%) analyzed data collected through web surveys. The next most analyzed mode was face-to-face interview data (31.2%), followed by mail (21.7%) and telephone interview (20.6%) data. Other modes (including mobile/smart phones, CASI, ACASI and others) have received less attention.

-x- Table 2 about here –x-

Indicators of satisficing

It was commonplace in the shortlisted studies to use multiple indicators of response quality. A total of 51 of the 141 shortlisted studies (36.2%) looked at weak forms satisficing, while 64 studies (45.4%) looked at strong forms of satisficing (see Table 3). Among the former, response order effects (primacy and recency) received the most attention, while among the latter, non-differentiation, and selecting the 'don't know' alternative were considered most frequently. Random reporting and the tendency to endorse the status quo have been used as indicators of satisficing in only a negligible number of the shortlisted studies. By contrast, a wide variety of alternative indicators of response quality have been used, and 44 (31.2%) of the shortlisted studies *only* used other indicators of response quality not mentioned in Krosnick's original list (shown in Table 3). These included, notably, item nonresponse, selecting middle alternatives in rating scales, interview pace (including overall interview duration and response latencies), selecting extreme responses, reliability or consistency of responses, and the length of answers to open-ended questions. Other less frequently used indicators of response quality were social desirability bias, response to trap questions, response accuracy, rounding and heaping, break-offs, and tests of validity (e.g. correlations with other variables).

-x- Table 3 about here –x-

Predictors of satisficing

All the shortlisted articles presented new empirical findings relating to differences in response quality between subgroups of respondents. The observed, or experimentally manipulated, explanatory variables for these differences were coded according to whether they related to task difficulty, respondent ability or respondent motivation.

Variables relating to task difficulty received the most attention in the shortlisted studies, appearing as predictors in over half (55.3%) of them (see Table 4). Indicators of respondent characteristics appeared in fewer articles: variables relating to respondent ability were analyzed in 64 (45.4%) of the articles, while variables capturing respondent motivation were analyzed in 57 (40.4%) of the articles. Details of the number of articles using different indicators within these broader categories are presented in Table 4 and summarized by article in Table A3 in the Online Appendix. Note that some articles used multiple indicators within a broader category so the totals within each do not match the total for the category as a whole. Less than half of the articles (64, 45.4%) addressed more than one category of explanatory variable simultaneously, enabling the analysis of their additive or multiplicative effects.

-x- Table 4 about here –x-

Summary of results obtained from research based on satisficing theory

Turning to the results of the studies, Table 5 shows the number reporting statistically significant main effects on response behavior associated with satisficing for task difficulty, respondent ability, and respondent motivation. Of the total number of articles that looked at task difficulty, 74.4% reported significant main effects. Somewhat fewer articles found main effects of respondent ability and respondent motivation. Of the articles looking at variation in response quality by respondent ability, 60.9% reported significant effects, while of those looking across levels of motivation, 68.4% reported significant effects. Just over one fifth (22.7%) of all the shortlisted articles found no significant main effects at all. Meanwhile, of the 64 studies that investigated more than one of the main predictors of satisficing and hence, could have tested for their combined effects, only half (50.0%) reported

significant interaction effects. Table A4 in the Online Appendix, individually summarizes the results for each of the shortlisted articles.

-x- Table 5 about here –x-

Another way to look at the results is to consider how many found evidence consistent with the theory of satisficing —that is, how many found evidence for an increased prevalence of satisficing under the conditions hypothesized to foster satisficing (i.e. increased task difficulty, and/or decreased respondent ability or motivation). In Table 6, for each of the main indicators of response quality considered, we present the number of statistically significant effects that are in the expected direction and the number that run in the opposite direction to that predicted by satisficing theory, alongside the total number of articles considering each indicator[4]. From these results, it is evident that some indicators of satisficing have produced more mixed results with respect to the theory than others (in terms of the number of consistent and contradictory main effects reported). This is true for acquiescence and non-differentiation compared with response order effects and don't know responding, where the evidence for satisficing is more consistent. Among the other indicators of satisficing used, the consistency of the reported findings also varies as a function of the indicator used. These findings are illustrated in Figure 3, which shows the relative proportion of articles reporting consistent and contradictory findings for each indicator.

-x- Figure 3 about here –x-

[4] Note that in some articles, multiple main effects were reported for a given satisficing indicator, but only one is counted per article for the purposes of this table. Likewise, null findings were not coded on an indicator-by-indicator basis.

DISCUSSION

In an effort to mitigate measurement error in surveys, methodologists have paid considerable attention to the cognitive processes involved in responding to questionnaires, the different factors that influence how these processes occur, and their effects on response quality. In this context, the theory of satisficing (Krosnick and Alwin 1987; Krosnick 1991) has proved remarkably popular. In this paper we have presented the results of a systematic review of empirical, methodological research that has explicitly invoked the concept of satisficing as an explanation for expected or observed differences in the prevalence of different types of response error between subgroups of respondents. Our coding frame was based on hypotheses outlined by Krosnick (1991), making it possible to assess the extent to which researchers drawing on the theory have pursued the agenda set forth in that article. A total of 141 studies were identified and retained in the full review.

Looking at the number of publications per year confirmed our impression that satisficing theory has continued to gain popularity. The last years examined saw an especially marked acceleration in the number of articles published. Part of this can be attributed to the take-up of online survey data collection, and the concomitant need for researchers to examine mode differences in data quality. These studies tend to use indirect indicators of measurement error, of which many, but not all, match those mentioned in Krosnick's original article. While main effects on satisficing were observed for all three factors (task difficulty, respondent ability and respondent motivation) in the majority of studies that measured them, fewer studies investigated,

and fewer still observed significant interaction effects (though the possibility that non-significant interactions were found but not reported cannot be ruled out). Given Krosnick's claim that the relations between task difficulty, respondent ability and respondent motivation are likely to be 'multiplicative' (1991, 225), this provides scope for future studies interested in testing the theory further. If satisficing is to be regarded as an adequate explanation for the variety of measurement effects for which it has been invoked as cause, the relative paucity of studies that actually test for and find the interaction effects implied by the theory poses a potential challenge, and one that invites further research.

The review also suggests that certain response effects are more likely to be observed under conditions that foster satisficing than others. Specifically, there appears to be greater empirical support for the hypothesis that primacy, recency and no opinion reporting are more common in situations of high task difficulty and low respondent ability and motivation than there is for acquiescence and nondifferentiation, and other frequently used alternative indicators of response quality. This is perhaps unsurprising given the variety of explanations that have been developed in the literature on response styles, which would suggest multiple additional factors may simultaneously play a role besides those mentioned by Krosnick (see Roberts 2016 for a recent review). In the case of acquiescence, for example, there is likely considerable variation in individual and cultural propensity to acquiesce for reasons other than lack of motivation or ability, which could account for the inconsistency we find with this indicator. An additional explanation (raised earlier) for these inconsistencies comes from the variation in the methods used to construct indicators of satisficing (e.g., the types of constructs measured, item response format, the number of items in a battery, methods to compile indices, and so on). The mixed pattern of findings may stem in

part from this heterogeneity. More detailed analysis of the methods used and their implications for conclusions about response quality could reveal systematic elements to this variation.

Limitations

A number of caveats to our conclusions, which relate to general challenges involved in systematic review, are worth mentioning. The first concerns the reliability of the coding procedure when using content analytic methods of the type used here. Even with a well-designed coding scheme, coders face numerous challenges when trying to decide how to apply it to specific units of analysis. In the case of the present study, the coding frame design was guided by the way in which Krosnick described the theory of satisficing in his 1991 article. However, the shortlisting procedure used to select studies led us to err on the side of inclusivity when deciding whether articles met the eligibility criteria or not. As a result, the shortlist included a mix of articles that had worked squarely within the framework of satisficing theory, and articles investigating differences in response quality across groups, that were less closely guided by the theory. This led to difficulties in deciding how to code indicators and predictors of satisficing, where they were not explicitly labeled as such. For example, some studies compared variation in response quality across modes of data collection, or across different question formats, and task difficulty was either explicitly cited as the causal mechanism for expected or observed differences in response, or was only implied in the theoretical part of the article. Discrepancies in the codes assigned for the articles that were double-coded for our intercoder reliability analysis reflect the difficulties coders had deciding how to code these implicit explanatory variables. Nevertheless, the level of reliability between coders in our study was generally good (according to Landis and Koch's (1977) recommended interpretation of the Kappa

statistic), and we were able to effectively adjudicate on discrepancies, as well as learn from them in order to improve the design of the coding scheme used to code articles published later in the study period.

A second challenge relates to the selectivity of the sample of shortlisted articles, which resulted not only from the abovementioned subjectivity of the coding procedure, but also from methodological decisions made relating to study selection. In relation to the former, the example just cited underlines the fact that part of the evidence base from which we draw conclusions relating to satisficing theory was never intended for this purpose, and the reader should be conscious of this when assessing the relative weight of contradictory or consistent evidence. Furthermore, the large number of citations retrieved in the literature searches led to the pragmatic decision to focus only on studies published in (English language) academic journals between 1987 and 2015 (articles published under Advance Access in 2015, were excluded because it created ambiguity around the cut-off date and the eligibility of other articles published during the data extraction stage of the review). As well as limiting the scale of the data extraction task, the decision to only review journal articles was also taken partly out of concerns that the search results for other types of publication, and especially for grey literature, might be less reliable and less complete (there was also some duplication between unpublished material and material that was later published in journals).

While focusing on published (mostly, peer-reviewed) work guarantees a certain level of quality of the research reviewed, all of the well-rehearsed caveats about the risk of publication bias against null findings apply. Equally, our conclusions may not hold for articles drawing on satisficing theory published since 2015 (Beller et al. 2013).

Conclusion

These limitations aside, we hope that the present review provides a useful starting point for future discussions about the relevance of the satisficing concept in survey research. It is especially noteworthy that although satisficing is a putative psychological mechanism thought to lie behind particular types of response behavior, very few of the articles we reviewed elaborate on the possible processes that instigate satisficing and the extent to which they are under the conscious control of the respondent (although see Vannette and Krosnick 2013). Krosnick (1991) states that respondents 'perform' certain response behaviors because they satisfice, implying it is the result of rational decision-making: 'Rather than continuing to expend the mental effort necessary to generate optimal answers to question after question, respondents are likely to compromise their standards and expend less energy instead' (214–215). Yet the literature on judgment and decision-making would imply that the use of heuristics and shortcuts (and the biases they produce) emerges from the interplay between effortful and attentive mental activity ('system 2' thinking) and the relatively automatic, *involuntary*, low effort ('system 1') thinking that both fuels and disrupts its counterpart (Kahneman, 2011). A consideration of what is currently known about these respective modes of thinking may offer new insights into voluntary and involuntary triggers of satisficing in surveys.

Very few studies have attempted to measure satisficing directly by self-reports or other explicit means, preferring instead indirect indicators of response scale effects. In other words, satisficing is assumed to be the cause of variation in such indicators. Exceptions include studies that include so-called 'Instructional Manipulation Checks' or 'trap questions' to identify inattentive respondents (e.g. Oppenheimer, Meyvis and

Davidenko 2009; Berinsky, Margolis and Sances 2014; Gao, House and Xie 2015; Hauser and Schwarz 2015; Revilla and Ochoa 2015). These studies find such methods useful for identifying 'bad' respondents, the removal of which from the analytic sample can improve the reliability of estimates. Instructional Manipulation Checks may also improve respondent attention to later questions, so this line of research offers promising guidance for how to measure satisficing and how to motivate respondents to optimize when responding to questionnaires.

In much of the literature reviewed, when negative or inconclusive results are found, the interpretation is that satisficing is not taking place in the context under investigation, not that the theory is incorrect or incomplete. Thus one of the conclusions we draw from the review is that satisficing theory is widely *assumed* by survey researchers to be a) useful and b), an appropriate description of the survey response process. There appears to be little appetite for formal attempts to test or falsify the theory. Nor is there much work that evaluates alternative theories that could potentially generate more accurate and consistent predictions about response quality. We hope that the present paper might stimulate thinking in this direction.

As well as providing insights into how the theory of satisficing has been used in survey methodological research, and into the empirical findings generated, we also hope that our study will serve as a useful resource for future researchers and practitioners. The systematic review approach not only helps to impose some structure on the otherwise unwieldy literature relating to response quality in surveys, the list of studies identified may also provide a useful sampling base for researchers seeking to undertake more focused analysis relating to particular aspects of satisficing theory. Such endeavors are of empirical interest, but more importantly, can play a

role in validating and improving the theories that guide survey practice and methodology.

REFERENCES

Alwin, Duane F. 1991. "Research on survey quality." *Sociological Methods and Research* 20:3–29.

Alwin, Duane F. 2007. *Margins of Error. A Study of Reliability in Survey Measurement*. Hoboken, NJ.: Wiley-Interscience.

Berinsky, Adam J., Michele F. Margolis, and Michael W. Sances. 2014. "Separating the shirkers from the workers? Making sure respondents pay attention on self-administered surveys." *American Journal of Political Science* 58:739–53.

Biemer, Paul. P., and Lars E. Lyberg. 2003. *Introduction to Survey Quality*. Hoboken, NJ: John Wiley & Sons.

Biemer, Paul P. 2010. "Total survey error: Design, implementation, and evaluation." *Public Opinion Quarterly* 74:817–48.

Bishop, George F., Robert W. Oldendick, and Alfred J. Tuchfarber. 1978. "Effects of question wording and format on political attitude consistency." *Public Opinion Quarterly* 42:81–92.

Bishop, George, and Andrew Smith. 2001. "Response-order effects and the early Gallup split-ballots." *Public Opinion Quarterly* 65:479–505.

Cantril, Hadley. 1940. "Experiments on the wording of questions." *Public Opinion Quarterly* 4:330–32.

Chang, Linchiat, and Jon A. Krosnick. 2009. "National surveys via RDD telephone interviewing versus the internet: Comparing sample representativeness and response quality." *Public Opinion Quarterly* 73:641–78.

Couper, Mick. P. 2011. "The future of modes of data collection." *Public Opinion Quarterly* 5:889–908.

Dewey, M. E. 1983. "Coefficients of agreement." *British Journal of Psychiatry,* 143:487–89.

Dillman, Don, Jolene D. Smyth, and Leah M. Christian. 2014. *Internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method.* Hoboken, NJ: John Wiley & Sons.

Fowler, Floyd. J. 1995. *Improving Survey Questions: Design and Evaluation.* Thousand Oaks, CA: Sage Publications.

Foddy, William. 1993. *Constructing Questions for Interviews and Questionnaires.* Cambridge University Press: Cambridge.

Groves, Robert. M., Floyd J. Fowler Jr., Mick P. Couper, James M. Lepkowski, Eleanor Singer, and Roger Tourangeau. 2009. *Survey Methodology (Wiley Series in Survey Methods)*, 2nd Ed. Hoboken, NJ: John Wiley & Sons.

Holbrook, Allyson L., Melanie C. Green, and Jon A. Krosnick. 2003. "Telephone versus face-to-face interviewing of national probability samples with long questionnaires: Comparisons of respondent satisficing and social desirability response bias." *Public Opinion Quarterly* 67:79–125.

Higgins, Julian P.T., and Sally Green. 2011. *Cochrane Handbook for Systematic Reviews of Interventions* Version 5.1.0 [updated March 2011]. The Cochrane Collaboration. www.cochrane-handbook.org.

Kahneman, Daniel. 2011. *Thinking, Fast and Slow*. New York: Farrar, Straus and Giroux.

Kalton, Graham, Martin Collins, and Lindsay Brook. 1978. "Experiments in wording opinion questions." *The Journal of the Royal Statistical Society Series* 27:149–61.

Kolbe, Richard H., and Melissa S. Burnett. 1991. "Content-analysis research: An examination of applications with directives for improving research reliability and objectivity." *Journal of Consumer Research* 18:243–50.

Krosnick, Jon A. 1991. "Response strategies for coping with the cognitive demands of attitude measures in surveys." *Applied Cognitive Psychology* 5:213–36.

Krosnick, Jon A., and Duane F. Alwin. 1987. "An evaluation of a cognitive theory of response order effects in survey measurement." *Public Opinion Quarterly* 51:201–19.

Krosnick, Jon A., and Duane F. Alwin. 1988. "A test of the form-resistant correlation hypothesis: Ratings, rankings and the measurement of values." *Public Opinion Quarterly* 52:526–38.

Krosnick, Jon A., and Duane F. Alwin. 1989. Response strategies for coping with the cognitive demands of attitude measures in surveys. Unpublished manuscript, Institute for Social Research, University of Michigan, Ann Arbor.

Landis, J. Richard, and Garry G. Koch. 1977. "The Measurement of Observer Agreement for Categorical Data." *Biometrics* 33:159–74.

Lombard, Matthew, Jeniffer Snyder-Duch, and Cheryl Campanella Bracken. 2010. "Practical resources for assessing and reporting intercoder reliability in content analysis research projects." Accessed January 11, 2018. http://matthewlombard.com/reliability/.

Neuendorf, Kimberly A. 2002. *The Content Analysis Guidebook.* Thousand Oaks, CA: Sage.

Payne, Stanley Le Baron. 1951. *The Art of Asking Questions*. Princeton: Princeton University Press.

Petticrew, Mark, and Helen Roberts. 2005. *Systematic Reviews in the Social Sciences: A Practical Guide*. Malden, MA.: Blackwell Publishing.

Roberts, Caroline. 2016. "Response styles in surveys: understanding their causes and mitigating their impact on data quality." In *The Sage Handbook of Survey Methodology*, edited by Christof Wolf, Dominique Joye, Tom W. Smith, and Yang-Chih Fu, 579–596. London: Sage Publications.

Schuman, Howard, and Stanley Presser. 1981. *Questions and Answers in Attitude Surveys. Experiments on Question Form, Wording, and Context*. New York, NY.: Academic Press, Inc.

Schwarz, Norbert. 2007. "Cognitive Aspects of Survey Methodology." *Applied Cognitive Psychology* 21:277–87.

Simon, Herbert A. 1956. "Rational choice and the structure of the environment." *Psychological Review* 63:129–38.

Sudman, Seymour, Norman M. Bradburn, and Norbert Schwarz. 1996. *Thinking About Answers: The Application of Cognitive Processes to Survey Methodology.* San Francisco, CA.: Jossey-Bass Publishers.

Tinsley, Howard E. A., and David J. Weiss. 2000. "Interrater reliability and agreement." In the *Handbook of Applied Multivariate Statistics and Mathematical Modeling,* edited by Howard E. A. Tinsley, and Steven D. Brown, 95–124. San Diego, CA: Academic Press.

Torgerson, Carole. 2003. *Systematic Reviews and Meta-analysis*. London: Continuum International Publishing.

Tourangeau, Roger. 1984. "Cognitive science and survey methods." In *Cognitive Aspects of Survey Design: Building a Bridge Between Disciplines*, edited by

Thomas B. Jabine, Miron L. Straf, Judith M. Tanur, and Roger Tourangeau, 73–100. Washington, D. C.: National Academy Press.

Tourangeau, Roger, Lance J. Ripps, and Kenneth Rasinski. 2000. *The Psychology of Survey Response*. Cambridge: Cambridge University Press.

Tourangeau, Roger. 2003. "Cognitive aspects of survey measurement and mismeasurement." *International Journal of Public Opinion Research,* 15:3-7.

Vannette, David. L., and Jon A. Krosnick. 2014. "A comparison of mindless and survey satisficing." In *The Wiley-Blackwell Handbook of Mindfulness*, edited by Amanda Ie, Christelle T. Ngnoumen, and Ellen J. Langer, 312–27. West Sussex, UK: John Wiley & Sons.

Willis, Gordon B. 2004. *Cognitive interviewing: A tool for improving questionnaire design*. Thousand Oaks, CA: Sage Publications.

LIST OF SHORTLISTED ARTICLES

1. Aichholzer, Julian. 2013. “Intra-individual variation of extreme response style in mixed-mode panel studies.” *Social Science Research* 42:957–70.
2. Atkeson, Lonna Rae, Alex N. Adams, and R. Michael Alvarez. 2014. “Nonresponse and mode effects in self- and interviewer-administered surveys.” *Political Analysis* 22:304–20.
3. Auspurg, Katrin, and Annette Jäckle. 2015. “First equals most important? Order effects in vignette-based measurement.” *Sociological Methods and Research* 46:490–539.
4. Barber, Larissa K., Christopher M. Barnes, and Kevin D. Carlson. 2013. “Random and systematic error effects of insomnia on survey behavior.” *Organizational Research Methods* 16:616–49.
5. Barge, Scott, and Hunter Gehlbach. 2012. “Using the theory of satisficing to evaluate the quality of survey data.” *Research in Higher Education* 53:182–200.
6. Bassili, John N., and Jon A. Krosnick. 2000. “Do strength-related attitude properties determine susceptibility to response effects? New evidence from response latency, attitude extremity, and aggregate indices.” *Political Psychology* 21:107–32.
7. Berinsky, Adam J., and Michele Margolis. 2011. “Missing voices: polling and healthcare.” *Journal of Health Politics, Policy and Law* 36:975–87.
8. Bishop, George, and Andrew Smith. 2001. “Response-order effects and the early Gallup split-ballots.” *Public Opinion Quarterly* 65:479–505.
9. Borgers, Natacha, and Hox, Joop. 2001. “Item nonresponse in questionnaire research with children.” *Journal of Official Statistics* 17:321–35.

10. Borgers, Natacha, Dirk Sikkel, and Joop Hox. 2004. “Response effects in surveys on children and adolescents: The effect of number of response options, negative wording, and neutral mid-point.” *Quality and Quantity* 38:17–33.
11. Brewer, Noel T., William K. Hallman, Nancy Fiedler, and Howard M. Kipen. 2004. “Why do people report better health by phone than by mail?” *Medical Care* 42:875–83.
12. Brockington, David. 2003. “A low information theory of ballot position effect.” *Political Behavior* 25:1–27.
13. Callegaro, Mario, Yongwei Yang, Dennison S. Bhola, Don A. Dillman, and Tzu-Yun Chin. 2009. “Response latency as an indicator of optimizing in online questionnaires.” *Bulletin of Sociological Methodology* 103:5–25.
14. Castro, Rubén. 2013. “Inconsistent respondents and sensitive questions. Field Methods” 25:283–98.
15. Chang, Linchiat, and Jon A. Krosnick. 2009. “National surveys via RDD telephone interviewing versus the internet: Comparing sample representativeness and response quality.” *Public Opinion Quarterly* 73:641–78.
16. Chang, Linchiat, and Jon A. Krosnick. 2010. “Comparing oral interviewing with self-administered computerized questionnaires: An experiment.” *Public Opinion Quarterly* 74:154–67.
17. Chen, Pu-Shih Daniel. 2011. “Finding quality responses: The problem of low-quality survey responses and its impact on accountability measures.” *Research in Higher Education*, 52:659–74.
18. Clifford, Scott, and Jennifer Jerit. 2015. “Do attempts to improve respondent attention increase social desirability bias?” *Public Opinion Quarterly* 79:790–

802.

19. Couper, Mick P. 1997. “Survey introductions and data quality.” *Public Opinion Quarterly* 61:317–38.
20. Couper, Mick P., Roger Tourangeau, Frederick G. Conrad, and Scott D. Crawford. 2004. “What they see is what we get - Response options for web surveys.” *Social Science Computer Review* 22:111–27.
21. Couper, Mick P., Roger Tourangeau, Frederick G. Conrad, and Chan Zhang. 2013. “The design of grids in web surveys.” *Social Science Computer Review* 31:322–45.
22. Craig, Benjamin M., Shannon K. Runge, Kim Rand-Hendriksen, Juan Manuel Ramos-Goni, and Mark Oppe. 2015. “Learning and satisficing: An analysis of sequence effects in health valuation.” *Value in Health* 18:217–23.
23. Darker, Catherine D., and David P. French. 2009. “What sense do people make of a Theory of Planned Behaviour questionnaire? A think-aloud study.” *Journal of Health Psychology* 14:861–71.
24. de Bruijne, Marika, and Arnaud Wijnant. 2014. “Improving response rates and questionnaire design for mobile web surveys.” *Public Opinion Quarterly* 78:951–62.
25. Díaz de Rada, Vidal. 2010. “Face-to-face versus telephone surveys on political attitudes: a comparative analysis.” *Quality and Quantity* 45:817–27.
26. Díaz de Rada, Vidal, and Juan Antonio Domínguez-Alvaraz. 2014. “Response quality of self-administered questionnaires.” *Social Science Computer Review* 32:256–69.
27. Díaz de Rada, Vidal, and Juan Antonio Domínguez. 2015. “The quality of responses to grid questions as used in Web questionnaires (compared with paper questionnaires).” *International Journal of Social Research Methodology*

18:337–48.

28. Dolnicar, Sara, and Bettina Grün. 2014. “Including don't know answer options in brand image surveys improves data quality.” *International Journal of Market Research* 56:33–50.
29. Dumitrescu, Delia, and Johan Martinsson. 2015. “Surveys as a social experience: The lingering effects of survey design choices on respondents' survey experience and subsequent optimizing behavior.” *International Journal of Public Opinion Research* 28:534–61.
30. Eggs, Johannes, and Annette Jäckle. 2015. “Dependent interviewing and sub-optimal responding.” *Survey Research Methods* 9:15–29.
31. Enns, Peter K., and Brian Richman. 2013. “Presidential campaigns and the fundamentals reconsidered.” *The Journal of Politics* 75:803–20.
32. Fang, Jiaming, Chao Wen, and Victor Prybutok. 2013. “The equivalence of Internet versus paper-based surveys in IT/IS adoption research in collectivistic cultures: The impact of satisficing.” *Behaviour & Information Technology* 32:480–90.
33. Fang, Jiaming, Chao Wen, and Victor Prybutok. 2014. “An assessment of equivalence between paper and social media surveys: The role of social desirability and satisficing.” *Computers in Human Behavior* 30:335–43.
34. Fricker, Scott, Mirta Galesic, Roger Tourangeau, and Ting Yan. 2005. “An experimental comparison of Web and telephone surveys.” *Public Opinion Quarterly* 69:370–92.
35. Galesic, Mirta, Roger Tourangeau, Mick P. Couper, and Frederick G. Conrad. 2008. “Eye-tracking data: New insights on response order effects and other cognitive shortcuts in survey responding.” *Public Opinion Quarterly* 72:892–913.

36. Gao, Zhifeng, Lisa A. House, and Jing Xie. 2015. “Online survey data quality and its implication for willingness-to-pay: A cross-country comparison.” *Canadian Journal of Agricultural Economics* 64:199–221.

37. Gehlbach, Hunter, and Scott Barge. 2012. “Anchoring and adjusting in questionnaire responses.” *Basic and Applied Social Psychology* 34:417–33.

38. Gilbert, Emily E. 2015. “A comparison of branched versus unbranched rating scales for the measurement of attitudes in surveys.” *Public Opinion Quarterly* 79:443–70.

39. Goldenbeld, Charles, and Saskia de Craen. 2013. “The comparison of road safety survey answers between web-panel and face-to-face; Dutch results of SARTRE-4 survey.” *Journal of safety Research* 46:13–20.

40. Gooch, Andrew. 2015. “Measurements of cognitive skill by survey mode: Marginal differences and scaling similarities.” *Research & Politics* 2:1–11.

41. Göritz, Anja S., and Susanne C. Luthe. 2013. “Effects of lotteries on response behavior in online panels.” *Field Methods* 25:219–37.

42. Grauenhorst, Thomas, Michael Blohm, and Achim Koch. 2015. “Respondent incentives in a national face-to-face survey: Do they affect response quality?” *Field Methods* 28:266–83.

43. Gray, Michelle, Margaret Blake, and Pamela Campanelli. 2014. “The use of cognitive interviewing methods to evaluate mode effects in survey questions.” *Field Methods* 26:156–71.

44. Greszki, Robert, Marco Meyer, and Harald Schoen. 2015. “Exploring the effects of removing “too fast” responses and respondents from web surveys.” *Public Opinion Quarterly* 79:471–503.

45.

46. Guess, Andrew M. 2015. “Measure for measure: An experimental test of online

political media exposure." *Political Analysis* 23:59–75.

47. Gummer, Tobias, and Joss Roßmann. 2015. "Explaining interview duration in web surveys: A multilevel approach." *Social Science Computer Review* 33:217–34.
48. Guzy, Nathalie, and Heinz Leitgöb. 2015. "Assessing mode effects in online and telephone victimization surveys." *International Review of Criminology* 21:101–31.
49. Hauser, David J., and Norbert Schwarz. 2015. "It's a trap! Instructional manipulation checks prompt systematic thinking on "tricky" tasks." *Sage Open* 5:1–6.
50. Heath, Oliver, Patten Smith, Nicholas Gilby, and Finn Hoolahan. 2015. "Partisan priming and subjective evaluations of the economy: Evidence from a survey experiment." *Journal of Elections, Public Opinion and Parties* 25:530–42.
51. Heerwegh, Dirk. 2009. "Mode differences between face-to-face and web surveys: An experimental investigation of data quality and social desirability effects." *International Journal of Public Opinion Research* 21:111–21.
52. Heerwegh, Dirk, and Geert Loosveldt. 2002. "An evaluation of the effect of response formats on data quality in web surveys." *Social Sciences Computer Review* 20:471–84.
53. Heerwegh, Dirk, and Geert Loosveldt. 2002. "Web surveys: The effect of controlling survey access using PIN numbers." *Social Science Computer Review* 20:10–21.
54. Heerwegh, Dirk, and Geert Loosveldt. 2008. "Face-to-face versus web surveying in a high-internet-coverage population: Differences in response quality*." Public Opinion Quarterly* 72:836–46.

55. Heerwegh, Dirk, Tim Vanhove, Koen Matthijs, and Geert Looseveldt. 2005. "The effect of personalization on response rates and data quality in web surveys." *International Journal of Social Research Methodology* 8:85–99.

56. Hoehne, Karem Jan, and Timo Lenzner. 2015. "Investigating response order effects in web surveys using eye tracking." *Psihologija* 48:361–77.

57. Holbrook, Allyson L., Sowmya Anand, Timothy P., Timothy P. Johnson, Young Ik Cho, Sharon Shavitt, Noel Chávez, and Saul Weiner. 2014. "Response heaping in interviewer-administered surveys: Is it really a form of satisficing?" *Public Opinion Quarterly* 78:591–633.

58. Holbrook, Allyson L., Isabel C. Farrar, and Susan J. Popkin. 2006. "Surveying a Chicago public housing development: Methodological challenges and lessons learned." *Evaluation Review* 30:779–802.

59. Holbrook, Allyson L., Melanie C. Green, and Jon A. Krosnick. 2003. "Telephone versus face-to-face interviewing of national probability samples with long questionnaires: Comparisons of respondent satisficing and social desirability response bias." *Public Opinion Quarterly* 67:79–125.

60. Holbrook, Allyson L., Jon A. Krosnick, David Moore, and Roger Tourangeau. 2007. "Response order effects in dichotomous categorical questions presented orally: The impact of question and respondent attributes." *Public Opinion Quarterly* 71:325–48.

61. Hoogendoorn, Adriaan W. "A questionnaire design for dependent interviewing that addresses the problem of cognitive satisficing." *Journal of Official Statistics* 20:219–32.

62. Hox, Joop J., Edith D. de Leeuw, and Hsuan-Tzu Chang. 2012. "Nonresponse versus measurement error: Are reluctant respondents worth pursuing?" *Bulletin of Sociological Methodology* 113:5–19.

63. Hsieh, Yuli Patrick. 2015. “Check the phone book: Testing information and communication technology (ICT) recall aids for personal network surveys.” *Social Networks* 41:101–02.

64. Israel, Glenn D., and Taylor, C. L. 1990. “Can response order bias evaluations?” *Evaluation and Program Planning* 13:365–71.

65. Javeline, Debra. 1999. “Response effects in polite cultures: A test of acquiescence in Kazakhstan.” *Public Opinion Quarterly* 63:1–28.

66. Johns, Robert. 2005. “One Size Doesn't Fit All: Selecting Response Scales for Attitude Items.” *Journal of Elections, Public Opinions & Parties* 15:237–64.

67. Kaminska, Olena, Allan L. Mcutcheon, and Jaak Billiet. 2010. “Satisficing among reluctant respondents in a cross-national context.” *Public Opinion Quaterly* 74:956–84.

68. Kampen, Jarl K. 2007. “The impact of survey methodology and context on central tendency, nonresponse and associations of subjective indicator of government performance.” *Quality & Quantity* 41:793–813.

69. Kaplowitz, Michael D., Frank Lupi, Felix K. Yeboah, and Laurie G. Thorp. 2013. “Exploring the middle ground between environmental protection and economic growth.” *Public Understanding of Science* 22:413–26.

70. Kelly, Diane, David J. Harper, and Brian Landau. 2008. “Questionnaire mode effects in interactive information retrieval experiments.” *Information processing & management* 44:122–41.

71. Kieruj, Natalia D., and Guy Moors. 2010. “Variations in response style behavior by response scale format in attitude research.” *International Journal of Public Opinion Research* 22:320–42.

72. Kieruj, Natalia D., and Guy Moors. 2013. “Response style behavior: question format dependent or personal style?” *Quality & Quantity* 47:193–211.

73. Kleiner, Brian, Oliver Lipps, and Eliane Ferrez. 2015. “Language Ability and Motivation Among Foreigners in Survey Responding.” *Journal of Survey Statistics and Methodology* 3:339–60.

74. Knauper, Barbel. 1999. “The impact of age and education on response order effects in attitude measurement.” *Public Opinion Quarterly* 63:347–70.

75. Knäuper, Barbel, Robert F. Belli, Daniel H. Hill, and A. Regula Herzog. 1997. “Question Difficulty and Respondents' Cognitive Ability: The Effect on Data Quality.” *Journal of Official Statistics* 13:181–99.

76. Koch, Achim, and Michael Blohm. 2009. “Item nonresponse in the European Social Survey.” *Research & Methods* 18:45–65.

77. Krebs, Dagmar, and Juergen H. Hoffmeyer-Zlotnik. 2010. “Positive First or Negative First? Effects of the Order of Answering Categories on Response Behavior.” *Methodology: European Journal of Research Methods for the Behavioral and Social Sciences* 6:118–27.

78. Krosnick, Jon A., Allyon L. Holbrook, Matthew K. Berent, Richard T. Carson, W. Michael Hanemann, Raymond J. Kopp, Robert Cameron Mitchel et al. 2002. “The impact of "no opinion" response options on data quality: Non-attitude reduction or an invitation to satisfice?” *Public Opinion Quaterly* 66:371–403.

79. Laurison, Daniel. 2015. “The willingness to state an opinion: Inequality, don't know responses, and political participation.” *Sociological Forum* 30:925–948.

80. Leeper, Thomas J. 2014. “Cognitive style and the survey response.” *Public Opinion Quarterly* 78:974–83.

81. Lelkes, Yphtach, and Rebecca Weiss. 2015. “Much ado about acquiescence: The relative validity and reliability of construct-specific and agree–disagree question.” *Research & Politics* 2:1–8.

82. Lelkes, Yphtach, Jon A. Krosnick, David M. Marx, Charles M. Judd, and Bernadette Park. 2012. “Complete anonymity compromises the accuracy of self-reports.” *Journal of Experimental Social Psychology* 48:1291–1299.

83. Lenzner, Timo. 2012. “Effects of Survey Question Comprehensibility on Response Quality.” *Field Methods* 24:409–28.

84. Lenzner, Timo, Lars Kaczmirek, and Alwine Lenzner. 2010. “Cognitive Burden of Survey Questions and Response Times: A Psycholinguistic Experiment.” *Applied Cognitive Psychology* 24:1003–1020.

85. Lindhjem, Henrik, and Ståle Navrud. 2011. “Are Internet surveys an alternative to face-to-face interviews in contingent valuation?” *Ecological Economics* 70:1628–1637.

86. Lipps, Oliver. 2007. “Interviewer and Respondent Survey Quality Effects in a CATI Panel.” *Bulletin of Sociological Methodology* 95:5–25.

87. Lugtig, Peter, and Gerty J. Lensveldt-Mulders. 2014. “Evaluating the Effect of Dependent Interviewing on the Quality of Measures of Change.” *Field Methods* 26:172–90.

88. Mahon-Haft, Taj Alexander, and Don A. Dillman. 2010. “Does Visual Appeal Matter? Effects of Web Survey Aesthetics on Survey Quality.” *Survey Research Methods* 4:43–59.

89. Malhotra, Neil. 2008. “Completion time and response order effects in web surveys.” *Public Opinion Quarterly* 72:914–34.

90. Malhotra, Neil. 2009. “Order Effects in Complex and Simple Tasks.” *Public Opinion Quarterly* 73:180–98.

91. Matthijsse, Suzette M., Edith D. de Leeuw, and Joop J. Hox. 2015. “Internet Panels, Professional Respondents, and Data Quality.” *Methodology* 11:81–88.

92. Mavletova, Aigul, and Mick P. Couper. 2013. “Sensitive topics in PC web and

mobile web surveys: Is there a difference?" *Survey Research Methods* 7:191–205.

93. Mayerl, Jochen. 2013. "Response latency measurement in surveys. Detecting strong attitudes and response effects." *Survey Methods: Insights from the Field.* http://surveyinsights.org/?p=1063

94. McCabe, Sean Esteban, Carol J. Boyd, Mick P. Couper, Scortt Crawford, and Hannah d'Arcy. 2002. "Mode effects for collecting alcohol and other drug use data: Web and US mail." *Journal of studies on alcohol* 63:755–61.

95. McClamroch, Kristi J. 2011. "Evaluating the usability of personal digital assistants to collect behavioral data on adolescents with paradata." *Field Methods* 23:219–42.

96. Mcdonald, Michael P., and Matthew P. Thornburg. 2012. "Interview mode effects: The case of exit polls and early voting." *Public Opinion Quarterly* 76:326–49.

97. Medway, Rebecca L., and Roger Tourangeau. 2015. "Response quality in telephone surveys: do prepaid cash incentives make a difference?" *Public Opinion Quarterly* 79:524–43.

98. Menold, Natalja, and Christoph J. Kemper. 2014. "How do real and falsified data differ? Psychology of survey response as a source of falsification indicators in face-to-face surveys." *International Journal of Public Opinion Research* 26:41–65.

99. Menold, Natalja, Lars Kaczmirek, Timo Lenzner, and Aleš Neusar. 2014. "How do respondents attend to verbal labels in rating scales?" *Field Methods* 26:21–39.

100. Murdoch, Maureen, John B. Pryor, Joan M. Griffin, Dian Cowper Ripley, Gary D. Gackstetter, Melissa A. Polusny, and James S. Hodges. 2011.

"Unreliability and error in the military's "Gold Standard" measure of sexual harassment by education and gender." *Journal of Trauma & Dissociation* 12: 216–31.

101. Muste, Christopher P. 2014. "The implications of survey modes and methods in measuring social-group closeness." *Public Opinion Quarterly* 78:859–88.
102. Narayan, Sowmya, and Jon A. Krosnick. 1996. "Education moderates some response effects in attitude measurement." *Public Opinion Quarterly* 60:58–88.
103. Nicolaas Gerry., Pamela Campanelli, Steven Hope, Annette Jäckle, and Peter Lynn. (2015). "Revisiting "Yes/No" versus "Check All That Apply": Results from a mixed modes experiment." *Survey Research Methods*, 9: 189–204.
104. O'Halloran, Alissa, S. Sean Hu, Ann Malarcher, Robert McMillen, Nell Valentine, Mary A. Moore, Jennifer J. Reid, Natalie Darling, and Robert B. Gerzoff. 2014. "Response order effects in the Youth Tobacco Survey: Results of a split-ballot experiment." *Survey Practice* 7:5.
105. Olson, Kristen, and Ipek Bilgen. 2011. "The role of interviewer experience on acquiescence. Public Opinion Quarterly" 75:99–114.
106. Oppenheimer, Daniel M., Tom Meyvis, and Nicolas Davidenko. 2009. "Instructional manipulation checks: Detecting satisficing to increase statistical power." *Journal of Experimental Social Psychology* 45:867–72.
107. Pickery, Jan, and Geert Loosveldt. 1998. "The impact of respondent and interviewer characteristics on the number of "no opinion" answers." *Quality & Quantity* 32:31–45.
108. Pickett, Justin T., Christi Falco Metcalfe, Thomas Baker, Marc Gertz, and Laura Bedard. 2014. "Superficial survey choice: An experimental test of a potential method for increasing response rates and response quality in

correctional surveys." *Journal of Quantitative Criminology* 30:265–84.

109. Pickett, Justin T., and Thomas Baker. 2014. "The pragmatic American: Empirical reality or methodological artefact?" *Criminology* 52:195–222.
110. Prior, Markus. 2009. "Improving media effects research through better measurement of news exposure." *The Journal of Politics* 71:893–908.
111. Pustejovsky, James E., and James P. Spillane. 2009. "Question-order effects in social network name generators." *Social networks* 31:221–29.
112. Rasinski, Kenneth A., David Mingay, and Norman M. Bradburn. 1994. "Do respondents really "mark all that apply" on self-administered questions?" *Public Opinion Quarterly* 58:400–08.
113. Revilla, Melanie. 2012. "Impact of the mode of data collection on the quality of answers to survey questions depending on respondent characteristics." *Bulletin of Sociological Methodology* 116:44–60.
114. Revilla, Melanie, and Carlos Ochoa. 2015. "What are the links in a web survey among response time, quality, and auto-evaluation of the efforts done?" *Social Science Computer Review* 33:97–114.
115. Robison, Joshua. 2014. "Who knows? Question format and political knowledge." *International Journal of Public Opinion Research* 27:1–21.
116. Rogelberg, Steven G., Gwenith G. Fisher, Douglas C. Maynard, Milton D. Hakel, and Michael Horvath. 2001. "Attitudes toward surveys: Development of a measure and its relationship to respondent behavior." *Organizational Research Methods* 4:3–25.
117. Schonla, Matthias, and Vera Toepoel. 2015. "Straightlining in Web survey panels over time." *Survey Research Methods* 9:125–37.
118. Serenko, Alexander, and Nick Bontis. 2013. "First in, best dressed: The presence of order-effect bias in journal ranking surveys." *Journal of*

Informetrics 7:138–44.

119. Shoemaker, Pamela J., Martin Eichholz, and Elizabeth A. Skewes. 2002. "Item nonresponse: Distinguishing between don't know and refuse." *International Journal of Public Opinion Research* 14:193–201.
120. Siminski, Peter. 2008. "Order effects in batteries of questions." *Quality & Quantity* 42:477–90.
121. Smyth, Jolene D., Don A. Dillman, Leah Melani Christian, and Michael J. Stern. 2006. "Comparing check-all and forced-choice question formats in Web surveys." *Public Opinion Quarterly* 70:66–77.
122. Smyth, Jolene, Kristen Olson, and Alian S. Kasabian. 2014. "The Effect of Answering in a Preferred Versus a Non-Preferred Survey Mode on Measurement." *Survey Research Methods* 8:137–52.
123. Staszyńska, Katarzyna M. 2011. "Cognitive determinants of data quality in public opinion polls: Respondents definition of the survey." *Polish Sociological Review* 176:493–514.
124. Steinbrecher, Markus, Joss Roßmann, and Jan Eric Blumenstiel. 2014. "Why do respondents break off web surveys and does it matter? Results from four follow-up surveys." *International Journal of Public Opinion Research* 27:289–302.
125. Stern, Michael, Don A. Dillman, and Jolene D. Smyth. 2007. "Visual Design, Order Effects, and Respondent Characteristics in a Self-Administered Survey." *Survey Research Methods* 1:121–38.
126. Stock, Volker. 2006. "Attitudes toward surveys, attitude accessibility and the effect on respondents' susceptibility to nonresponse." *Quality and Quantity* 40:259–88.
127. Stolte, John F. 1994. "The context of satisficing in vignette research." *The*

Journal of Social Psychology 134:727–33.

128. Stratton, Terry D., Donald B. Witzke, Robert J. Jacob, Marlene J. Sauer, and Amy Murphy-Spencer. 2002. “Medical students' ratings of faculty teaching in a multi-instructor setting: An examination of monotonic response patterns.” *Advances in Health Sciences Education* 7:99–116.
129. Struminskaya, Bella, Kai Weyandt, and Michael Bosnjak. 2015. “The effects of questionnaire completion using mobile devices on data quality. Evidence from a probability-based general population panel.” *Methods, data, analyses* 9:261–92.
130. Sturgis, Patrick, Caroline Roberts, and Patten Smith. 2014. “Middle alternatives revisited: How the neither/nor response acts as a way of saying "I don't know".” *Sociological Methods and Research* 43:15–38.
131. Toepoel, Vera, Marcel Das, and Arthur Van Soest. 2008. “Effects of design in web surveys: Comparing trained and fresh respondents.” *Public Opinion Quarterly* 72:985–1007.
132. Tourangeau, Roger, Robert M. Groves, Courtney Kennedy, and Ting Yan. 2009. “The presentation of a web survey, nonresponse and measurement error among members of web panel.” *Journal of Official Statistics* 25:299–321.
133. Turgeon, Mathieu. 2009. “'Just thinking:' Attitude development, public opinion, and political representation.” *Political Behavior* 31:353–78.
134. Turner, Gosia, Patrick Sturgis, and David Martin. 2014. “Can response latencies be used to detect survey satisficing on cognitively demanding questions?.” *Journal of Survey Statistics and Methodology* 3:89–108.
135. Vicente, Paula, Elizabeth Reis, and Maria Santos. 2009. “Using mobile phones for survey research.” *International Journal of Market Research* 51:613–33.
136. Vogl, Susanne. 2013. “Telephone versus face-to-face interviews: Mode effect

on semistructured interviews with children." *Sociological Methodology* 43:133–77.

137. Wagner, Markus, and Eva Zeglovits. 2014. "Survey questions about party competence: Insights from cognitive interviews." *Electoral Studies* 34:280–90.
138. Weijters, Bert, Hans Baumgartner, and Niels Schillewaert. 2013. "Reversed item bias: An integrative model." *Psychological Methods* 18:320–34.
139. Wicker, Frank W., Yehsoon Park, Erin McCann, and Douglas Hamman. 1995. "Task involvement and satisficing with motivational scales." *Psychological Reports* 77:211–23.
140. Yan, Ting, and Florian Keusch. 2015. "The effects of the direction of rating scales on survey responses in a telephone survey." *Public Opinion Quarterly* 79:145–65.
141. Yang, Yongwei, Mario Callegaro, Dennison S. Bhola, and Don A. Dillman. 2011. "IVR and web administration in structured interviews utilizing rating scales: Exploring the role of motivation as a moderator to mode effects." International Journal of Social Research Methodology, 14(1): 1-15.
142. Zhang, Chan, and Frederick Conrad. 2014. "Speeding in Web Surveys: The tendency to answer very fast and its association with straightlining." *Survey Research Methods* 8:127–35.

Table 1. Intercoder reliability indices before adjudication

Codes	**Percent Agreement %**	**Cohen's Kappa *k***
Stage 1 codes: Study selection		
Inclusion criteria		
- Methodological, substantive or both	93.7	0.84
- Empirical, theoretical or both	96.4	0.85
- Nature of reference (relevant empirical evidence vs. brief mention of search terms)	97.0	0.91
Stage 2 codes: Data abstraction and synthesis		
Study research design		
- Survey experiment/ Non-experimental	86.7	0.60
- Single/ Mixed mode	96.7	0.92
Indicators of weak satisficing analyzed		
- Primacy/ Recency/ Acquiescence	86.7	0.78
Indicators of strong satisficing analysed[1]		
- Non-differentiation/ Don't knows/ Random reporting	80.0	0.68
Independent variables analyzed		
- Task difficulty	73.3	0.46
- Respondent ability	83.3	0.70
- Respondent motivation	66.7	0.35
Significant main effects:		
- Task difficulty	90.0	0.76
- Respondent ability	93.3	0.86
- Respondent motivation	83.3	0.52
Interactions:		
- Significant interaction effects reported	76.7	0.43

Notes. [1]Endorsing the status quo not included as only a few studies used this indicator.

Table 2. Characteristics of reviewed shortlisted studies

Characteristic	*N = 141*	*% Total*
No. of journals represented	59	-
Reference to satisficing in title	13	9.2
Reference to satisficing in abstract	45	31.9
Research design[1]		
- Survey experiment/ split-ballot	92	65.3
- Non-experimental survey data	44	31.2
- Other	5	3.6
Data collection modes[1]		
- Single mode studies	92	65.3
- Mode comparison studies	32	22.7
- Replication in a different mode	17	12.1
Mode(s) of data collection[2]		
- Web self-completion	74	52.5
- Face-to-face interview	44	31.2
- Paper self-completion	31	22.0
- Telephone interview	29	20.6
- Mobile phone interview	6	4.3
- CASI	4	2.8
- ACASI	1	0.7
- Other	8	5.7

Notes. [1]Base = all 141 articles. Sum of values may deviate from 100% due to rounding.

Table 3. Indicators of response quality analyzed

	N=141	*% Total*[2]
Indicators of weak satisficing analyzed		
- None	90	63.8
- Primacy	32	22.7
- Acquiescence	24	17.0
- Recency	13	9.2
Indicators of strong satisficing analyzed		
- None	77	54.6
- Don't Know/ No-opinion filters	38	27.0
- Non-differentiation	37	26.2
- Random reporting (mental coin-flipping)	2	1.4
- Endorsing the status quo	1	0.7
Other indicators of response quality		
- Item non-response	34	24.1
- Middle alternatives in rating scales	25	17.7
- Interview pace (interview duration/ response latencies)	20	14.2
- Extreme responses[1]	12	8.5
- Reliability/ consistency	11	7.8
- Length of responses to open-ended questions	8	5.7
- Social Desirability Bias	6	4.3
- Trap questions	6	4.3
- Accuracy	5	3.6
- Rounding and heaping	5	3.6
- Break-offs	4	2.8
- Validity/ correlations	4	2.8
- Other	20	14.2

Notes. [1]Includes extreme plus middle responses. [2]Studies may include multiple indicators in each category, so the percentage shown is the percentage of all shortlisted studies using each type of indicator.

Table 4. Predictors of satisficing - indicators of task difficulty, respondent ability and respondent motivation

	N=141	*%*[1]
Indicators of task difficulty	78	55.3
- Hypothesized differences between modes	23	16.3
- Features of the question format	21	14.8
- Response selection challenges	20	14.2
- Simple vs. complex judgments	10	7.1
- Interpretability	8	5.7
- Recall task	6	4.3
- Other	10	7.1
Indicators of respondent ability	64	45.4
- Cognitive sophistication	58	41.1
- Highest level of education	36	25.5
- Number of years education	6	4.3
- Cognitive skills test	5	3.6
- Age	11	7.8
- Domain-relevant thinking/ knowledge	4	2.8
- Pre-consolidated attitudes	5	3.6
- Experience of taking surveys	2	1.4
- Other[2]	5	3.6
Indicators of respondent motivation	57	40.4
- Personally important topic	15	10.6
- Believing survey is worthwhile	10	7.1
- Interview duration	9	6.4
- Accountability	8	5.7
- Interviewer behavior	7	5.0
- Need for cognition/Need for evaluation	6	4.3
- Incentives	4	2.8
- Self-reported effort	3	2.1
- Reluctant vs. cooperative respondents	2	1.4
- Other	6	4.3
More than one type of predictor analyzed	64	45.4

Notes: [1]Studies may include multiple indicators in each category, so the percentage shown is the percentage of all shortlisted studies using each type of indicator. [2]Includes other indicators of cognitive sophistication.

Table 5. Summary of results relating to predictors satisficing

	n	*%*	*% Total*
Studies reporting significant main effects of total analyzing each predictor[1]:			
- Task difficulty	58/78	74.4	41.1
- Respondent motivation	39/57	68.4	27.7
- Respondent ability	39/64	60.9	27.7
- No main effects observed	32/141	-	22.7
Studies reporting significant interaction effects involving predictors of satisficing:			
Significant interaction effects observed	32/64	50.0	22.7

Notes: [1] Studies may report more than one main or interaction effects.

Table 6. Reported main effects consistent with or contradicting satisficing theory by satisficing indicator

	Total number of articles	Main effects consistent with theory[2]	Main effects contradicting theory
Weak satisficing indicators:			
- Response order effects	33	22	6
- Acquiescence	24	8	6
Strong satisficing indicators[1]:			
- Don't Know/ No-opinion filters	38	24	8
- Non-differentiation	37	15	12
Other indicators of response quality:			
- Item non-response	34	18	12
- Middle alternatives in rating scales	25	9	2
- Interview pace	20	10	8
- Extreme responses	12	7	3
- Reliability/ consistency	11	5	2

Notes. [1]Endorsing the status quo and random reporting (mental coin-flipping) are not considered here.
[2]Article reported at least one main effect for that indicator consistent with or contradicting satisficing theory.

Satisficing in surveys: A systematic review of the literature

Online Appendix

Contents

Table A1. Coding Frame

A	Variables	Codes
1	Publication status	- Published - Unpublished
2	Type of publication	- Journal article - Book section - Book - Working paper - Report - Conference proceedings - Conference presentation - Other
3	Language of publication	- English - Other (specify)
4	Title content	- Reference to satisficing in title - No reference to satisficing in title
5	Abstract content	- Reference to satisficing in abstract - No reference to satisficing in abstract - No abstract available
6	Empirical vs. theoretical content (i.e. does the publication present results of empirical research?)	- New empirical results generated and presented - Theoretical/ non-empirical
7	Focus of publication	- Methodological focus - Substantive focus - Mix of methodological / substantive
8	Nature of reference to satisficing	- Satisficing theory referred to only in passing - Satisficing theory mentioned in detail but does not guide empirical research - Study compares data quality across groups but is not guided by satisficing theory - Study compares data quality across groups and is explicitly guided by satisficing theory - Other, specify
9	Does the publication present findings reported elsewhere (i.e. in more than one publication included in our review)?	- Findings reported in more than publication included in review - Unique reference

B	**Only for papers explicitly comparing satisficing rates across groups:**	
10	Data source	- Survey experiment/ split ballot - Non-experimental survey data - Other
11	Data source	- Name of survey (write in)
12	Single mode or mode comparison	- Single mode - Mode comparison
13	Mode(s) of data collection (tick all that apply)	- Face-to-face interview - Telephone interview - Cell phone interview - Paper self-completion - Web self-completion - CASI - ACASI - Other
14	For other experimental designs:	- Describe main comparison groups
C	**Dependent variables/ indicators of satisficing:**	
15	Indicators of weak satisficing analysed	- Primacy - Recency - Acquiescence
16	Indicators of strong satisficing analysed	- Endorsing the status quo - Non-differentiation - Don't Know - Random reponding (mental coin-flipping)
17	Other indicators of data quality analysed:	- Item non-response - Middle alternatives in scales - Other(s), specify
18	For each indicator, summarise method used to construct measure of satisficing prevalence:	- No. of items - Type of items - Method to compute indicator from multiple items
D	**Independent variables/ predictors of satisficing:**	
19	Task difficulty (are the following variables used to assess task difficulty? Tick all)	- Interpretability - Recall task - Simple vs. complex judgments - Response selection challenges - Other, specify

20	Respondent ability	- Cognitive sophistication (incl. education, see 20) - Domain-relevant thinking/ knowledge - Preconsolidated attitudes - Other, specify
21	If 'cognitive sophistication' how is this measured?	- Highest level of education - Number of years education - Cognitive skills test, specify - Other, specify
22	Respondent motivation	- need for cognition - personally important topic - believing survey is worthwhile - interviewer behaviour - accountability - interview duration
E	**Results reported**	
23	Main effects (publication reports significant main effect on prevalence of satisficing between groups). Tick all.	- Task difficulty - Respondent ability - Respondent motivation
24	Interaction effects (publication reports interaction effects on prevalence of satisficing between one or more variables measuring)	- Task difficulty - Respondent ability - Respondent motivation - Specify interaction effect observed: (e.g. interview duration * education)

Table A2. Record of search strings used in each search engine

Search date	Search location	Search term	# of sources found
13/1/11	ISI web of knowledge – All databases	'Krosnick 1991' [in 'topic']	1
13/1/11	ISI web of knowledge – All databases	'Krosnick and Alwin 1987' [in 'topic']	0
13/1/11	ISI web of knowledge – All databases	'satisficing' AND 'survey' [in 'topic']	23
13/1/11	ISI web of knowledge – All databases	'satisficing' AND 'Krosnick' [in 'topic']	0
13/1/11	ISI web of knowledge – All databases	'satisfice' AND 'survey' [in 'topic']	5
13/1/11	ISI web of knowledge – All databases	'satisfice' AND 'Krosnick' [in 'topic']	0
13/1/11	ISI web of knowledge – All databases	'satisficing' AND 'questionnaire' [in 'topic']	7
13/1/11	Public Opinion Quarterly search	'Krosnick 1991' [as 'phrase']	24
13/1/11	Public Opinion Quarterly search	'Krosnick and Alwin 1987' [as 'phrase']	18
13/1/11	Public Opinion Quarterly search	'satisficing survey' [as 'all']	37
13/1/11	Public Opinion Quarterly search	'satisficing Krosnick' [as 'all']	33
13/1/11	Public Opinion Quarterly search	'satisfice survey' [as 'all']	14
13/1/11	Public Opinion Quarterly search	'satisfice Krosnick' [as 'all']	13
13/1/11	Public Opinion Quarterly search	'satisficing questionnaire' [as 'all']	34
14/1/11	IJPOR search	'Krosnick 1991' [as 'phrase']	12
14/1/11	IJPOR search	'Krosnick and Alwin 1987' [as 'phrase']	2
14/1/11	IJPOR search	'satisficing survey' [as 'all']	15
14/1/11	IJPOR search	'satisficing Krosnick' [as 'all']	13
14/1/11	IJPOR search	'satisfice survey' [as 'all']	0
14/1/11	IJPOR search	'satisfice Krosnick' [as 'all']	0
14/1/11	IJPOR search	'satisficing questionnaire' [as 'all']	14
14/1/11	JOS search	'Krosnick 1991' [as 'keywords']	0
14/1/11	JOS search	'Krosnick and Alwin 1987' [as 'keywords']	0
14/1/11	JOS search	'satisficing survey' [as 'keywords']	0
14/1/11	JOS search	'satisficing Krosnick' [as 'keywords']	0
14/1/11	JOS search	'satisfice survey' [as 'keywords']	0
14/1/11	JOS search	'satisfice Krosnick' [as 'keywords']	0
14/1/11	JOS search	'satisficing questionnaire' [as 'keywords']	0
14/1/11	JOS search	'satisficing' [as 'keywords']	0
14/1/11	JOS search	'satisfice' [as 'keywords']	0
14/1/11	Field Methods search	'Krosnick 1991' [in 'all fields']	2
14/1/11	Field Methods search	'Krosnick and Alwin 1987' [in 'all fields']	3
14/1/11	Field Methods search	'satisficing' AND 'survey' [in 'all fields']	4
14/1/11	Field Methods search	'satisficing' AND 'Krosnick' [in 'all fields']	3
14/1/11	Field Methods search	'satisfice' AND 'survey' [in 'all fields']	0
14/1/11	Field Methods search	'satisfice' AND 'Krosnick' [in 'all fields']	0
14/1/11	Sociological Methods and Research search	'Krosnick 1991' [in 'all fields']	6
14/1/11	Sociological Methods and	'Krosnick and Alwin 1987' [in 'all	2

	Research search	fields’]	
14/1/11	Sociological Methods and Research search	‘satisficing’ AND ‘survey’ [in ‘all fields’]	3
14/1/11	Sociological Methods and Research search	‘satisficing’ AND ‘Krosnick’ [in ‘all fields’]	2
14/1/11	Sociological Methods and Research search	‘satisfice’ AND ‘survey’ [in ‘all fields’]	0
14/1/11	Sociological Methods and Research search	‘satisfice’ AND ‘Krosnick’ [in ‘all fields’]	0
14/1/11	Survey Research Methods search	‘Krosnick 1991’ [in ‘Search all categories for’]	2
14/1/11	Survey Research Methods search	‘Krosnick and Alwin 1987’ [in ‘Search all categories for’]	1
14/1/11	Survey Research Methods search	‘satisficing’ AND ‘survey’ [in ‘Search all categories for’]	0
14/1/11	Survey Research Methods search	‘satisficing’ AND ‘Krosnick’ [in ‘Search all categories for’]	0
14/1/11	Survey Research Methods search	‘satisfice’ AND ‘survey’ [in ‘Search all categories for’]	0
14/1/11	Survey Research Methods search	‘satisfice’ AND ‘Krosnick’ [in ‘Search all categories for’]	0
2/2/11	Google Scholar Advanced	‘satisficing’ [in ‘with ALL the words’] AND ‘Krosnick 1991’ [in ‘with the exact phrase’]	301
7/2/11	International Journal of Social Research Methodology	‘Krosnick 1991’ [in ‘all text’]	3
7/2/11	International Journal of Social Research Methodology	‘Krosnick and Alwin 1987’ [in ‘all text’]	1
7/2/11	International Journal of Social Research Methodology	‘satisficing’ AND ‘survey’ [in ‘all text’]	4
7/2/11	International Journal of Social Research Methodology	‘satisficing’ AND ‘Krosnick [in ‘all text’]	3
7/2/11	International Journal of Social Research Methodology	‘satisfice’ AND ‘survey’ [in ‘all text’]	0
7/2/11	International Journal of Social Research Methodology	‘satisfice’ AND ‘Krosnick [in ‘all text’]	0
7/2/11	SSRN e-library	‘Krosnick 1991’ [in ‘Title, Abstract & Keywords’]	0
7/2/11	SSRN e-library	‘Krosnick and Alwin 1987’ [in ‘Title, Abstract & Keywords’]	0
7/2/11	SSRN e-library	‘satisficing’ AND ‘survey’ [in ‘Title, Abstract & Keywords’]	9
7/2/11	SSRN e-library	‘satisficing’ AND ‘Krosnick’ [in ‘Title, Abstract & Keywords’]	0
7/2/11	SSRN e-library	‘satisfice’ AND ‘survey’ [in ‘Title, Abstract & Keywords’]	1
7/2/11	SSRN e-library	‘satisfice’ AND ‘Krosnick’ [in ‘Title, Abstract & Keywords’]	0
8/2/11	Survey Practice	‘Krosnick 1991’ [in text]	2
8/2/11	Survey Practice	‘Krosnick and Alwin 1987’ [in text]	0
8/2/11	Survey Practice	‘satisficing’ AND ‘survey’ [in text]	1
8/2/11	Survey Practice	‘satisficing’ AND ‘Krosnick’ [in text]	1
8/2/11	Survey Practice	‘satisfice’ AND ‘survey’ [in text]	0
8/2/11	Survey Practice	‘satisfice’ AND ‘Krosnick’ [in text]	0
8/2/11	Proceedings of SRMS	‘Krosnick 1991’ [in text]	21
8/2/11	Proceedings of SRMS	‘Krosnick and Alwin 1987’ [in text]	11
8/2/11	Proceedings of SRMS	‘satisficing’ AND ‘survey’ [in text]	38
8/2/11	Proceedings of SRMS	‘satisficing’ AND ‘Krosnick’ [in text]	24
8/2/11	Proceedings of SRMS	‘satisfice’ AND ‘survey’ [in text]	11
8/2/11	Proceedings of SRMS	‘satisfice’ AND ‘Krosnick’ [in text]	9

15/2/11	ISER working paper series	'Krosnick 1991' [in text]	6
15/2/11	ISER working paper series	'Krosnick and Alwin 1987' [in text]	2
15/2/11	ISER working paper series	'satisficing' AND 'survey' [in text]	11
15/2/11	ISER working paper series	'satisficing' AND 'Krosnick' [in text]	7
15/2/11	ISER working paper series	'satisfice' AND 'survey' [in text]	6
15/2/11	ISER working paper series	'satisfice' AND 'Krosnick' [in text]	5
5/5/11	Scirus.com	"Krosnick, 1991" OR "Krosnick (1991)"	149[1]
5/5/11	Scirus.com	"Krosnick and Alwin, 1987" OR "Krosnick and Alwin (1987)"	33
5/5/11	Scirus.com	satisfic* survey AND Krosnick	158
5/5/11	Scirus.com	satisfic* questionnaire AND Krosnick	143
18/11/11	ISI web of knowledge – All databases	'Krosnick 1991' [in 'topic'] Timespan: From 2011 to 2011	0
18/11/11	ISI web of knowledge – All databases	'Krosnick and Alwin 1987' [in 'topic'] Timespan: From 2011 to 2011	0
18/11/11	ISI web of knowledge – All databases	'satisficing' AND 'survey' [in 'topic'] Timespan: From 2011 to 2011	3
18/11/11	ISI web of knowledge – All databases	'satisficing' AND 'Krosnick' [in 'topic'] Timespan: From 2011 to 2011	0
18/11/11	ISI web of knowledge – All databases	'satisfice' AND 'survey' [in 'topic'] Timespan: From 2011 to 2011	0
18/11/11	ISI web of knowledge – All databases	'satisfice' AND 'Krosnick' [in 'topic'] Timespan: From 2011 to 2011	0
18/11/11	ISI web of knowledge – All databases	'satisficing' AND 'questionnaire' [in 'topic'] Timespan: From 2011 to 2011	1
18/11/11	Public Opinion Quarterly search	'Krosnick 1991' [as 'phrase'] Specify Citation Year 2011	2
18/11/11	Public Opinion Quarterly search	'Krosnick and Alwin 1987' [as 'phrase'] Specify Citation Year 2011	2
18/11/11	Public Opinion Quarterly search	'satisficing survey' [as 'all'] Specify Citation Year 2011	5
18/11/11	Public Opinion Quarterly search	'satisficing Krosnick' [as 'all'] Specify Citation Year 2011	4
18/11/11	Public Opinion Quarterly search	'satisfice survey' [as 'all'] Specify Citation Year 2011	0
18/11/11	Public Opinion Quarterly search	'satisfice Krosnick' [as 'all'] Specify Citation Year 2011	0
18/11/11	Public Opinion Quarterly search	'satisficing questionnaire' [as 'all'] Specify Citation Year 2011	5
18/11/11	IJPOR search	'Krosnick 1991' [as 'phrase'] Specify Citation Year 2011	4
18/11/11	IJPOR search	'Krosnick and Alwin 1987' [as 'phrase'] Specify Citation Year 2011	0
18/11/11	IJPOR search	'satisficing survey' [as 'all'] Specify Citation Year 2011	5
18/11/11	IJPOR search	'satisficing Krosnick' [as 'all'] Specify Citation Year 2011	0
18/11/11	IJPOR search	'satisfice survey' [as 'all'] Specify Citation Year 2011	0
18/11/11	IJPOR search	'satisfice Krosnick' [as 'all'] Specify Citation Year 2011	0
18/11/11	IJPOR search	'satisficing questionnaire' [as 'all'] Specify Citation Year 2011	4
18/11/11	JOS search	'Krosnick 1991' [as 'keywords']	0
18/11/11	JOS search	'Krosnick and Alwin 1987' [as 'keywords']	0

18/11/11	JOS search	'satisficing survey' [as 'keywords']	0
18/11/11	JOS search	'satisficing Krosnick' [as 'keywords']	0
18/11/11	JOS search	'satisfice survey' [as 'keywords']	0
18/11/11	JOS search	'satisfice Krosnick' [as 'keywords']	0
18/11/11	JOS search	'satisficing questionnaire' [as 'keywords']	0
18/11/11	JOS search	'satisficing' [as 'keywords']	0
18/11/11	JOS search	'satisfice' [as 'keywords']	0
18/11/11	Field Methods search	'Krosnick 1991' [in 'all fields'] Jan 2011 through November 2011	1
18/11/11	Field Methods search	'Krosnick and Alwin 1987' [in 'all fields'] Jan 2011 through November 2011	0
18/11/11	Field Methods search	'satisficing' AND 'survey' [in 'all fields'] Jan 2011 through November 2011	2
18/11/11	Field Methods search	'satisficing' AND 'Krosnick' [in 'all fields'] Jan 2011 through November 2011	1
18/11/11	Field Methods search	'satisfice' AND 'survey' [in 'all fields'] Jan 2011 through November 2011	0
18/11/11	Field Methods search	'satisfice' AND 'Krosnick' [in 'all fields'] Jan 2011 through November 2011	0
18/11/11	Sociological Methods and Research search	'Krosnick 1991' [in 'all fields']	2
18/11/11	Sociological Methods and Research search	'Krosnick and Alwin 1987' [in 'all fields']	0
18/11/11	Sociological Methods and Research search	'satisficing' AND 'survey' [in 'all fields']	2
18/11/11	Sociological Methods and Research search	'satisficing' AND 'Krosnick' [in 'all fields']	2
18/11/11	Sociological Methods and Research search	'satisfice' AND 'survey' [in 'all fields']	0
18/11/11	Sociological Methods and Research search	'satisfice' AND 'Krosnick' [in 'all fields']	0
18/11/11	Survey Research Methods search	'Krosnick 1991' [in 'Search all categories for']	2
18/11/11	Survey Research Methods search	'Krosnick and Alwin 1987' [in 'Search all categories for']	1
18/11/11	Survey Research Methods search	'satisficing' AND 'survey' [in 'Search all categories for']	0
18/11/11	Survey Research Methods search	'satisficing' AND 'Krosnick' [in 'Search all categories for']	0
18/11/11	Survey Research Methods search	'satisfice' AND 'survey' [in 'Search all categories for']	0
18/11/11	Survey Research Methods search	'satisfice' AND 'Krosnick' [in 'Search all categories for']	0
18/11/11	Google Scholar Advanced	'satisficing' [in 'with ALL the words'] AND 'Krosnick 1991' [in 'with the exact phrase']. Published between 2011-2011	41
18/11/11	International Journal of Social Research Methodology	'Krosnick 1991' [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name'] From 1/1/11-18/11/11	0
18/11/11	International Journal of Social Research Methodology	'Krosnick and Alwin 1987' [in 'full text']	0

		'International Journal of Social Research Methodology' [in 'publication name'] From 1/1/11-18/11/11	
18/11/11	International Journal of Social Research Methodology	'satisficing' AND 'survey' [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name'] From 1/1/11-18/11/11	1
18/11/11	International Journal of Social Research Methodology	'satisficing' AND 'Krosnick [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name'] From 1/1/11-18/11/11	1
18/11/11	International Journal of Social Research Methodology	'satisfice' AND 'survey' [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name'] From 1/1/11-18/11/11	1
18/11/11	International Journal of Social Research Methodology	'satisfice' AND 'Krosnick [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name'] From 1/1/11-18/11/11	1
18/11/11	SSRN e-library	'Krosnick 1991' [in 'Title, Abstract & Keywords'] Time: last year	0
18/11/11	SSRN e-library	'Krosnick and Alwin 1987' [in 'Title, Abstract & Keywords'] Time: last year	0
18/11/11	SSRN e-library	'satisficing' AND 'survey' [in 'Title, Abstract & Keywords'] Time: last year	1
18/11/11	SSRN e-library	'satisficing' AND 'Krosnick' [in 'Title, Abstract & Keywords'] Time: last year	0
18/11/11	SSRN e-library	'satisfice' AND 'survey' [in 'Title, Abstract & Keywords'] Time: last year	0
18/11/11	SSRN e-library	'satisfice' AND 'Krosnick' [in 'Title, Abstract & Keywords'] Time: last year	0
18/11/11	Survey Practice	'Krosnick 1991 2011'	0
18/11/11	Survey Practice	'Krosnick and Alwin 1987 2011'	0
18/11/11	Survey Practice	'satisficing survey 2011'	1
18/11/11	Survey Practice	'satisficing Krosnick 2011'	1
18/11/11	Survey Practice	'satisfice survey 2011'	0
18/11/11	Survey Practice	'satisfice Krosnick 2011'	0
18/11/11	Proceedings of SRMS	'Krosnick 1991' [in text]	0
18/11/11	Proceedings of SRMS	'Krosnick and Alwin 1987' [in text]	0
18/11/11	Proceedings of SRMS	'satisficing' AND 'survey' [in text]	0
18/11/11	Proceedings of SRMS	'satisficing' AND 'Krosnick' [in text]	0
18/11/11	Proceedings of SRMS	'satisfice' AND 'survey' [in text]	0
18/11/11	Proceedings of SRMS	'satisfice' AND 'Krosnick' [in text]	0
18/11/11	ISER working paper series	'Krosnick 1991' published between 1/11-11/11	0
18/11/11	ISER working paper series	'Krosnick and Alwin 1987' published between 1/11-11/11	0
18/11/11	ISER working paper series	'satisficing' AND 'survey' published between 1/11-11/11	0
18/11/11	ISER working paper series	'satisficing' AND 'Krosnick' published between 1/11-11/11	0
18/11/11	ISER working paper series	'satisfice' AND 'survey' published	0

		between 1/11-11/11	
18/11/11	ISER working paper series	'satisfice' AND 'Krosnick' published between 1/11-11/11	0
28/02/2015	ISI web of knowledge – All databases	'Krosnick 1991' [in 'topic'] Timespan: From 2011 to 2015	0
28/02/2015	ISI web of knowledge – All databases	'Krosnick and Alwin 1987' [in 'topic'] Timespan: From 2011 to 2015	0
28/02/2015	ISI web of knowledge – All databases	'satisficing' AND 'survey' [in 'topic'] Timespan: From 2011 to 2015	26
28/02/2015	ISI web of knowledge – All databases	'satisficing' AND 'Krosnick' [in 'topic'] Timespan: From 2011 to 2015	0
28/02/2015	ISI web of knowledge – All databases	'satisfice' AND 'survey' [in 'topic'] Timespan: From 2011 to 2015	2
28/02/2015	ISI web of knowledge – All databases	'satisfice' AND 'Krosnick' [in 'topic'] Timespan: From 2011 to 2015	0
28/02/2015	ISI web of knowledge – All databases	'satisficing' AND 'questionnaire' [in 'topic'] Timespan: From 2011 to 2015	8
28/02/2015	Public Opinion Quarterly search	'Krosnick 1991' [as 'phrase'] Specify Citation Year 2011	3
28/02/2015	Public Opinion Quarterly search	'Krosnick 1991' [as 'phrase'] Specify Citation Year 2012	2
28/02/2015	Public Opinion Quarterly search	'Krosnick 1991' [as 'phrase'] Specify Citation Year 2013	1
28/02/2015	Public Opinion Quarterly search	'Krosnick 1991' [as 'phrase'] Specify Citation Year 2014	4
28/02/2015	Public Opinion Quarterly search	'Krosnick 1991' [as 'phrase'] Specify Citation Year 2015	1
28/02/2015	Public Opinion Quarterly search	'Krosnick and Alwin 1987' [as 'phrase'] Specify Citation Year 2011	2
28/02/2015	Public Opinion Quarterly search	'Krosnick and Alwin 1987' [as 'phrase'] Specify Citation Year 2012	0
28/02/2015	Public Opinion Quarterly search	'Krosnick and Alwin 1987' [as 'phrase'] Specify Citation Year 2013	0
28/02/2015	Public Opinion Quarterly search	'Krosnick and Alwin 1987' [as 'phrase'] Specify Citation Year 2014	2
28/02/2015	Public Opinion Quarterly search	'Krosnick and Alwin 1987' [as 'phrase'] Specify Citation Year 2015	1
28/02/2015	Public Opinion Quarterly search	'satisficing survey' [as 'all'] Specify Citation Year 2011	9
28/02/2015	Public Opinion Quarterly search	'satisficing survey' [as 'all'] Specify Citation Year 2012	4
28/02/2015	Public Opinion Quarterly search	'satisficing survey' [as 'all'] Specify Citation Year 2013	1
28/02/2015	Public Opinion Quarterly search	'satisficing survey' [as 'all'] Specify Citation Year 2014	10
28/02/2015	Public Opinion Quarterly search	'satisficing survey' [as 'all'] Specify Citation Year 2015	1
28/02/2015	Public Opinion Quarterly search	'satisficing Krosnick' [as 'all'] Specify Citation Year 2011	7
28/02/2015	Public Opinion Quarterly search	'satisficing Krosnick' [as 'all'] Specify Citation Year 2012	2
28/02/2015	Public Opinion Quarterly search	'satisficing Krosnick' [as 'all'] Specify Citation Year 2013	1
28/02/2015	Public Opinion Quarterly search	'satisficing Krosnick' [as 'all']	9

28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2014 ‘satisficing Krosnick’ [as ‘all’]	1
28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2015 ‘satisfice survey’ [as ‘all’]	2
28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2011 ‘satisfice survey’ [as ‘all’]	0
28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2012 ‘satisfice survey’ [as ‘all’]	0
28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2013 ‘satisfice survey’ [as ‘all’]	2
28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2014 ‘satisfice survey’ [as ‘all’]	1
28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2015 ‘satisfice Krosnick’ [as ‘all’]	1
28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2011 ‘satisfice Krosnick’ [as ‘all’]	0
28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2012 ‘satisfice Krosnick’ [as ‘all’]	0
28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2013 ‘satisfice Krosnick’ [as ‘all’]	2
28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2014 ‘satisfice Krosnick’ [as ‘all’]	1
28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2015 ‘satisficing questionnaire’ [as ‘all’]	8
28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2011 ‘satisficing questionnaire’ [as ‘all’]	3
28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2012 ‘satisficing questionnaire’ [as ‘all’]	1
28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2013 ‘satisficing questionnaire’ [as ‘all’]	10
28/02/2015	Public Opinion Quarterly search	Specify Citation Year 2014 ‘satisficing questionnaire’ [as ‘all’]	1
28/02/2015	IJPOR search	Specify Citation Year 2015 ‘Krosnick 1991’ [as ‘phrase’]	3
28/02/2015	IJPOR search	Specify Citation Year 2011 ‘Krosnick 1991’ [as ‘phrase’]	2
28/02/2015	IJPOR search	Specify Citation Year 2012 ‘Krosnick 1991’ [as ‘phrase’]	1
28/02/2015	IJPOR search	Specify Citation Year 2013 ‘Krosnick 1991’ [as ‘phrase’]	3
28/02/2015	IJPOR search	Specify Citation Year 2014 ‘Krosnick 1991’ [as ‘phrase’]	0
28/02/2015	IJPOR search	Specify Citation Year 2015 ‘Krosnick and Alwin 1987’ [as ‘phrase’]	0
28/02/2015	IJPOR search	Specify Citation Year 2011 ‘Krosnick and Alwin 1987’ [as ‘phrase’]	0
28/02/2015	IJPOR search	Specify Citation Year 2012 ‘Krosnick and Alwin 1987’ [as ‘phrase’]	0
28/02/2015	IJPOR search	Specify Citation Year 2013 ‘Krosnick and Alwin 1987’ [as ‘phrase’]	0
28/02/2015	IJPOR search	Specify Citation Year 2014 ‘Krosnick and Alwin 1987’ [as ‘phrase’]	0
28/02/2015	IJPOR search	Specify Citation Year 2015 ‘satisficing survey’ [as ‘all’]	4
		Specify Citation Year 2011	

28/02/2015	IJPOR search	'satisficing survey' [as 'all']	2
		Specify Citation Year 2012	
28/02/2015	IJPOR search	'satisficing survey' [as 'all']	3
		Specify Citation Year 2013	
28/02/2015	IJPOR search	'satisficing survey' [as 'all']	4
		Specify Citation Year 2014	
28/02/2015	IJPOR search	'satisficing survey' [as 'all']	0
		Specify Citation Year 2015	
28/02/2015	IJPOR search	'satisficing Krosnick' [as 'all']	4
		Specify Citation Year 2011	
28/02/2015	IJPOR search	'satisficing Krosnick' [as 'all']	2
		Specify Citation Year 2012	
28/02/2015	IJPOR search	'satisficing Krosnick' [as 'all']	3
		Specify Citation Year 2013	
28/02/2015	IJPOR search	'satisficing Krosnick' [as 'all']	4
		Specify Citation Year 2014	
28/02/2015	IJPOR search	'satisficing Krosnick' [as 'all']	0
		Specify Citation Year 2015	
28/02/2015	IJPOR search	'satisfice survey' [as 'all']	0
		Specify Citation Year 2011	
28/02/2015	IJPOR search	'satisfice survey' [as 'all']	1
		Specify Citation Year 2012	
28/02/2015	IJPOR search	'satisfice survey' [as 'all']	0
		Specify Citation Year 2013	
28/02/2015	IJPOR search	'satisfice survey' [as 'all']	2
		Specify Citation Year 2014	
28/02/2015	IJPOR search	'satisfice survey' [as 'all']	0
		Specify Citation Year 2015	
28/02/2015	IJPOR search	'satisfice Krosnick' [as 'all']	0
		Specify Citation Year 2011	
28/02/2015	IJPOR search	'satisfice Krosnick' [as 'all']	1
		Specify Citation Year 2012	
28/02/2015	IJPOR search	'satisfice Krosnick' [as 'all']	0
		Specify Citation Year 2013	
28/02/2015	IJPOR search	'satisfice Krosnick' [as 'all']	2
		Specify Citation Year 2014	
28/02/2015	IJPOR search	'satisfice Krosnick' [as 'all']	0
		Specify Citation Year 2015	
28/02/2015	IJPOR search	'satisficing questionnaire' [as 'all']	3
		Specify Citation Year 2011	
28/02/2015	IJPOR search	'satisficing questionnaire' [as 'all']	2
		Specify Citation Year 2012	
28/02/2015	IJPOR search	'satisficing questionnaire' [as 'all']	3
		Specify Citation Year 2013	
28/02/2015	IJPOR search	'satisficing questionnaire' [as 'all']	4
		Specify Citation Year 2014	
28/02/2015	IJPOR search	'satisficing questionnaire' [as 'all']	0
		Specify Citation Year 2015	
28/02/2015	JOS search	'Krosnick 1991' [as 'keywords']	0
28/02/2015	JOS search	'Krosnick and Alwin 1987' [as 'keywords']	0
28/02/2015	JOS search	'satisficing survey' [as 'keywords']	0
28/02/2015	JOS search	'satisficing Krosnick' [as 'keywords']	0
28/02/2015	JOS search	'satisfice survey' [as 'keywords']	0
28/02/2015	JOS search	'satisfice Krosnick' [as 'keywords']	0
28/02/2015	JOS search	'satisficing questionnaire' [as 'keywords']	0
28/02/2015	JOS search	'satisficing' [as 'keywords']	0
28/02/2015	JOS search	'satisfice' [as 'keywords']	0
28/02/2015	Field Methods search	'Krosnick 1991' [in 'all fields']	8

28/02/2015	Field Methods search	Nov 2011 through March 2015 'Krosnick and Alwin 1987' [in 'all fields']	3
28/02/2015	Field Methods search	Nov 2011 through March 2015 'satisficing' AND 'survey' [in 'all fields']	4
28/02/2015	Field Methods search	Nov 2011 through March 2015 'satisficing' AND 'Krosnick' [in 'all fields']	8
28/02/2015	Field Methods search	Nov 2011 through March 2015 'satisfice' AND 'survey' [in 'all fields']	4
28/02/2015	Field Methods search	Nov 2011 through March 2015 'satisfice' AND 'Krosnick' [in 'all fields']	4
28/02/2015	Sociological Methods and Research search	Nov 2011 through March 2015 'Krosnick 1991' [in 'all fields']	10
28/02/2015	Sociological Methods and Research search	Nov 2011 through March 2015 'Krosnick and Alwin 1987' [in 'all fields']	4
28/02/2015	Sociological Methods and Research search	Nov 2011 through March 2015 'satisficing' AND 'survey' [in 'all fields']	13
28/02/2015	Sociological Methods and Research search	Nov 2011 through March 2015 'satisficing' AND 'Krosnick' [in 'all fields']	11
28/02/2015	Sociological Methods and Research search	Nov 2011 through March 2015 'satisfice' AND 'survey' [in 'all fields']	2
28/02/2015	Sociological Methods and Research search	Nov 2011 through March 2015 'satisfice' AND 'Krosnick' [in 'all fields']	2
28/02/2015	Survey Research Methods search	Nov 2011 through March 2015 'Krosnick 1991' [in 'Search all categories for']	8
28/02/2015	Survey Research Methods search	'Krosnick and Alwin 1987' [in 'Search all categories for']	3
28/02/2015	Survey Research Methods search	'satisficing' AND 'survey' [in 'Search all categories for']	1
28/02/2015	Survey Research Methods search	'satisficing' AND 'Krosnick' [in 'Search all categories for']	1
28/02/2015	Survey Research Methods search	'satisfice' AND 'survey' [in 'Search all categories for']	1
28/02/2015	Survey Research Methods search	'satisfice' AND 'Krosnick' [in 'Search all categories for']	1
28/02/2015	Google Scholar Advanced	'satisficing' [in 'with ALL the words'] AND 'Krosnick 1991' [in 'with the exact phrase']. Published between 2011-2015	322
28/02/2015	International Journal of Social Research Methodology	'Krosnick 1991' [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name'] From 18/11/11-03/03/2015	0
28/02/2015	International Journal of Social Research Methodology	'Krosnick and Alwin 1987' [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name'] From 18/11/11-03/03/2015	0

28/02/2015	International Journal of Social Research Methodology	'satisficing' AND 'survey' [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name'] From 18/11/11-03/03/2015	0
28/02/2015	International Journal of Social Research Methodology	'satisficing' AND 'Krosnick [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name'] From 18/11/11-03/03/2015	0
28/02/2015	International Journal of Social Research Methodology	'satisfice' AND 'survey' [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name'] From 18/11/11-03/03/2015	0
28/02/2015	International Journal of Social Research Methodology	'satisfice' AND 'Krosnick [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name'] From 18/11/11-03/03/2015	0
28/02/2015	SSRN e-library	'Krosnick 1991' [in 'Title, Abstract & Keywords'] Time: all dates	0
28/02/2015	SSRN e-library	'Krosnick and Alwin 1987' [in 'Title, Abstract & Keywords'] Time: all dates	0
28/02/2015	SSRN e-library	'satisficing' AND 'survey' [in 'Title, Abstract & Keywords'] Time: all dates	2
28/02/2015	SSRN e-library	'satisficing' AND 'Krosnick' [in 'Title, Abstract & Keywords'] Time: all dates	0
28/02/2015	SSRN e-library	'satisfice' AND 'survey' [in 'Title, Abstract & Keywords'] Time: all dates	0
28/02/2015	SSRN e-library	'satisfice' AND 'Krosnick' [in 'Title, Abstract & Keywords'] Time: all dates	0
28/02/2015	Survey Practice	'Krosnick 1991'	10
28/02/2015	Survey Practice	'Krosnick and Alwin 1987'	3
28/02/2015	Survey Practice	'satisficing survey'	5
28/02/2015	Survey Practice	'satisficing Krosnick'	4
28/02/2015	Survey Practice	'satisfice survey'	2
28/02/2015	Survey Practice	'satisfice Krosnick'	2
28/02/2015	Proceedings of SRMS	'Krosnick 1991' [in text]	0
28/02/2015	Proceedings of SRMS	'Krosnick and Alwin 1987' [in text]	0
28/02/2015	Proceedings of SRMS	'satisficing' AND 'survey' [in text]	1
28/02/2015	Proceedings of SRMS	'satisficing' AND 'Krosnick' [in text]	0
28/02/2015	Proceedings of SRMS	'satisfice' AND 'survey' [in text]	0
28/02/2015	Proceedings of SRMS	'satisfice' AND 'Krosnick' [in text]	0
28/02/2015	ISER working paper series	'Krosnick 1991'	0
28/02/2015	ISER working paper series	'Krosnick and Alwin 1987'	0
28/02/2015	ISER working paper series	'satisficing' AND 'survey'	3
28/02/2015	ISER working paper series	'satisficing' AND 'Krosnick'	0
28/02/2015	ISER working paper series	'satisfice' AND 'survey'	1
28/02/2015	ISER working paper series	'satisfice' AND 'Krosnick'	0
11/06/2016	ISI web of knowledge – All databases	'Krosnick 1991' [in 'topic'] Publication date: 2015	1
11/06/2016	ISI web of knowledge – All databases	'Krosnick and Alwin 1987' [in 'topic'] Publication date: 2015	0
11/06/2016	ISI web of knowledge – All databases	'satisficing' AND 'survey' [in 'topic'] Publication date: 2015	13
11/06/2016	ISI web of knowledge – All	'satisficing' AND 'Krosnick' [in	1

	databases	'topic'] Publication date: 2015	
11/06/2016	ISI web of knowledge – All databases	'satisfice' AND 'survey' [in 'topic'] Publication date: 2015	1
11/06/2016	ISI web of knowledge – All databases	'satisfice' AND 'Krosnick' [in 'topic'] Publication date: 2015	0
11/06/2016	ISI web of knowledge – All databases	'satisficing' AND 'questionnaire' [in 'topic'] Publication date: 2015	4
11/06/2016	Public Opinion Quarterly search	'Krosnick 1991' [as 'phrase'] Specify Citation Year 2015	9
11/06/2016	Public Opinion Quarterly search	'Krosnick and Alwin 1987' [as 'phrase'] Specify Citation Year 2015	3
11/06/2016	Public Opinion Quarterly search	'satisficing survey' [as 'all'] Specify Citation Year 2015	8
11/06/2016	Public Opinion Quarterly search	'satisficing Krosnick' [as 'all'] Specify Citation Year 2015	7
11/06/2016	Public Opinion Quarterly search	'satisfice survey' [as 'all'] Specify Citation Year 2015	4
11/06/2016	Public Opinion Quarterly search	'satisfice Krosnick' [as 'all'] Specify Citation Year 2015	4
11/06/2016	Public Opinion Quarterly search	'satisficing questionnaire' [as 'all'] Specify Citation Year 2015	7
11/06/2016	IJPOR search	'Krosnick 1991' [as 'phrase'] Specify Citation Year 2015	3
11/06/2016	IJPOR search	'Krosnick and Alwin 1987' [as 'phrase'] Specify Citation Year 2015	0
11/06/2016	IJPOR search	'satisficing survey' [as 'all'] Specify Citation Year 2015	3
11/06/2016	IJPOR search	'satisficing Krosnick' [as 'all'] Specify Citation Year 2015	3
11/06/2016	IJPOR search	'satisfice survey' [as 'all'] Specify Citation Year 2015	3
11/06/2016	IJPOR search	'satisfice Krosnick' [as 'all'] Specify Citation Year 2015	3
11/06/2016	IJPOR search	'satisficing questionnaire' [as 'all'] Specify Citation Year 2015	3
11/06/2016	JOS search	'Krosnick 1991' [as 'keywords'] Exact year: 2015	0
11/06/2016	JOS search	'Krosnick and Alwin 1987' [as 'keywords'] Exact year: 2015	0
11/06/2016	JOS search	'satisficing survey' [as 'keywords'] Exact year: 2015	0
11/06/2016	JOS search	'satisficing Krosnick' [as 'keywords'] Exact year: 2015	0
11/06/2016	JOS search	'satisfice survey' [as 'keywords'] Exact year: 2015	0
11/06/2016	JOS search	'satisfice Krosnick' [as 'keywords'] Exact year: 2015	0
11/06/2016	JOS search	'satisficing questionnaire' [as 'keywords'] Exact year: 2015	0
11/06/2016	JOS search	'satisficing' [as 'keywords'] Exact year: 2015	0
11/06/2016	JOS search	'satisfice' [as 'keywords'] Exact year: 2015	0
11/06/2016	Field Methods search	'Krosnick 1991' [in 'all fields'] March 2015 through December 2015	0

11/06/2016	Field Methods search	'Krosnick and Alwin 1987' [in 'all fields']	0
11/06/2016	Field Methods search	March 2015 through December 2015 'satisficing' AND 'survey' [in 'all fields']	1
11/06/2016	Field Methods search	March 2015 through December 2015 'satisficing' AND 'Krosnick' [in 'all fields']	1
11/06/2016	Field Methods search	March 2015 through December 2015 'satisfice' AND 'survey' [in 'all fields']	0
11/06/2016	Field Methods search	March 2015 through December 2015 'satisfice' AND 'Krosnick' [in 'all fields']	0
11/06/2016	Sociological Methods and Research search	March 2015 through December 2015 'Krosnick 1991' [in 'all fields']	6
11/06/2016	Sociological Methods and Research search	March 2015 through December 2015 'Krosnick and Alwin 1987' [in 'all fields']	5
11/06/2016	Sociological Methods and Research search	March 2015 through December 2015 'satisficing' AND 'survey' [in 'all fields']	9
11/06/2016	Sociological Methods and Research search	March 2015 through December 2015 'satisficing' AND 'Krosnick' [in 'all fields']	6
11/06/2016	Sociological Methods and Research search	March 2015 through December 2015 'satisfice' AND 'survey' [in 'all fields']	0
11/06/2016	Sociological Methods and Research search	March 2015 through December 2015 'satisfice' AND 'Krosnick' [in 'all fields']	0
11/06/2016	Survey Research Methods search	March 2015 through December 2015 'Krosnick 1991' [in 'Full text']	6
11/06/2016	Survey Research Methods search	March 2015 through December 2015 'Krosnick and Alwin 1987' [in 'Search all categories for']	3
11/06/2016	Survey Research Methods search	2015 'satisficing' AND 'survey' [in 'Search all categories for']	4
11/06/2016	Survey Research Methods search	March 2015 through December 2015 'satisficing' AND 'Krosnick' [in 'Search all categories for']	4
11/06/2016	Survey Research Methods search	March 2015 through December 2015 'satisfice' AND 'survey' [in 'Search all categories for']	1
11/06/2016	Survey Research Methods search	March 2015 through December 2015 'satisfice' AND 'Krosnick' [in 'Search all categories for']	1
11/06/2016	Google Scholar Advanced	March 2015 through December 2015 'satisficing' [in 'with ALL the words'] AND 'Krosnick 1991' [in 'with the exact phrase']. Published between 2015-2015	129
11/06/2016	International Journal of Social Research Methodology	'Krosnick 1991' [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name']	0
11/06/2016	International Journal of Social Research Methodology	'Krosnick and Alwin 1987' [in 'full text'] 'International Journal of Social	0

		Research Methodology' [in 'publication name']	
11/06/2016	International Journal of Social Research Methodology	'satisficing' AND 'survey' [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name']	0
11/06/2016	International Journal of Social Research Methodology	'satisficing' AND 'Krosnick [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name']	0
11/06/2016	International Journal of Social Research Methodology	'satisfice' AND 'survey' [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name']	0
11/06/2016	International Journal of Social Research Methodology	'satisfice' AND 'Krosnick [in 'full text'] 'International Journal of Social Research Methodology' [in 'publication name']	0
11/06/2016	SSRN e-library	'Krosnick 1991' [in 'Title, Abstract & Keywords'] Time: last 2 years	0
11/06/2016	SSRN e-library	'Krosnick and Alwin 1987' [in 'Title, Abstract & Keywords'] Time: last 2 years	0
11/06/2016	SSRN e-library	'satisficing' AND 'survey' [in 'Title, Abstract & Keywords'] Time: last 2 years	0
11/06/2016	SSRN e-library	'satisficing' AND 'Krosnick' [in 'Title, Abstract & Keywords'] Time: last 2 years	0
11/06/2016	SSRN e-library	'satisfice' AND 'survey' [in 'Title, Abstract & Keywords'] Time: last 2 years	0
11/06/2016	SSRN e-library	'satisfice' AND 'Krosnick' [in 'Title, Abstract & Keywords'] Time: last 2 years	0
11/06/2016	Survey Practice	'Krosnick 1991' [in 'Full text] Publication date 01/03/2015-31/12/2015	3
11/06/2016	Survey Practice	'Krosnick and Alwin 1987' [in 'Full text] Publication date 01/03/2015-31/12/2015	0
11/06/2016	Survey Practice	'satisficing survey' [in 'Full text] Publication date 01/03/2015-31/12/2015	1
11/06/2016	Survey Practice	'satisficing Krosnick' [in 'Full text] Publication date 01/03/2015-31/12/2015	1
11/06/2016	Survey Practice	'satisfice survey' [in 'Full text] Publication date 01/03/2015-31/12/2015	1
11/06/2016	Survey Practice	'satisfice Krosnick'[in 'Full text] Publication date 01/03/2015-31/12/2015	1
11/06/2016	Proceedings of SRMS	'Krosnick 1991' [in text]	0
11/06/2016	Proceedings of SRMS	'Krosnick and Alwin 1987' [in text]	0
11/06/2016	Proceedings of SRMS	'satisficing' AND 'survey' [in text]	0

11/06/2016	Proceedings of SRMS	'satisficing' AND 'Krosnick' [in text]	0
11/06/2016	Proceedings of SRMS	'satisfice' AND 'survey' [in text]	0
11/06/2016	Proceedings of SRMS	'satisfice' AND 'Krosnick' [in text]	0
11/06/2016	ISER working paper series	'Krosnick 1991'	1
11/06/2016	ISER working paper series	'Krosnick and Alwin 1987'	0
11/06/2016	ISER working paper series	'satisficing'	1
11/06/2016	ISER working paper series	'satisfice'	0

Notes: [1]All results from Scirus include articles in journals and preferred web content only.

Table A3. Summary of satisficing indicators used in shortlisted articles

Authors	Weak Satisficing			Strong Satisficing			Other Data Quality Indicators		
	Response Order Effects	Acquies-cence	Non-Differentiation	Selecting 'Don't Know'	Endorsing the Status Quo	Random Responding	Item Nonresponse	Midpoint Responding	Other
Aichholzer, 2013									X[2]
Atkeson, Adams, and Alvarez, 2014			X						X
Ausberg and Jäckle, 2015	X								X
Barber, Barnes and Carlson, 2013						X			X
Barge and Gehlbach, 2012			X				X		X[1]
Bassili and Krosnick, 2000		X			X			X	X
Berinsky and Margolis, 2011				X					
Bishop and Smith, 2001	X								
Borgers, Hox, and Sikkel, 2001								X	X[3]
Borgers, Sikkel and Hox, 2004							X		
Brewer, Hallman, et al., 2004									X
Brockington, 2003	X								
Callegaro, Yang, Bhola, et al., 2009									X[1]
Castro, 2013									X[3]
Chang and Krosnick, 2009			X					X	
Chang and Krosnick, 2010	X		X						X
Chen, 2011			X				X		
Clifford and Jerit, 2015							X		X[1]
Couper, 1997			X				X		X
Couper, Tourangeau, et al., 2004								X	X[1]
Couper, Tourangeau, et al., 2013			X	X			X		
Craig, Runge, et al., 2015									X[1]
Darker and French, 2009								X	
De Bruijne and Wijnant, 2014	X						X		
de Rada & Dominguez-Alvarez, 2014	X						X		X
de Rada and Dominguez, 2015			X				X	X	X[2]
de Rada, 2010		X		X			X		
Dolnicar and Grün, 2012				X				X	
Dumitrescu and Martinsson, 2015				X				X	X[1]
Eggs and Jäckle, 2015									X
Enns and Richman, 2013				X					X
Fang, Wen, and Prybutok, 2013								X	X[2]
Fang, Wen, and Prybutok, 2014			X					X	X[2]
Fricker, Galesic, et al., 2005		X	X	X					
Galesic, Tourangeau, et al., 2008	X								X[1]
Gao, House, and Xie, 2015									X

Gehlbach and Barge, 2012			X					X
Gilbert, 2015								X[3]
Goldenbeld and Craen, 2013		X	X				X	
Gooch, 2015								X
Goritz, and Luthe, 2013			X	X		X		
Grauenhorst, Blohm, and Koch, 2015			X	X		X	X	X[2], X[3]
Gray, Blake, and Campanelli, 2014		X	X				X	
Greszki, Meyer, and Schoen, 2015			X	X				X[1]
Guess, 2015								X
Gummer and Rossmann, 2015								X[1]
Guzy and Leitgob, 2015						X		
Hauser and Schwarz, 2015								X
Heath, Smith, et al., 2015								X
Heerwegh and Loosveldt, 2002a				X				
Heerwegh and Loosveldt, 2002b				X		X		
Heerwegh and Loosveldt, 2008			X	X		X	X	
Heerwegh, 2009		X	X	X		X		
Heerwegh, Vanhove, et al., 2005				X		X		
Hoehne and Lenzner, 2015	X							
Holbrook, Anand, et al., 2014								X[1]
Holbrook, Farrar, and Popkin, 2006						X		
Holbrook, Green, and Krosnick, 2003	X		X	X				
Holbrook, Krosnick, et al., 2007	X							
Hoogendoorn, 2004								X
Hox, de Leeuw, and Chang, 2012								X[3]
Hsieh, 2015						X		X[1]
Israel and Taylor, 2010	X							
Javeline, 1999		X						
Johns, 2005				X			X	
Kaminska, Mcutcheon, & Billiet, 2010			X	X	X		X	X[2]
Kampen, 2007		X				X		
Kaplowitz, Lupi, et al., 2013						X	X	
Kelly, Harper, and Landau, 2008								
Kieruj and Moors, 2010							X	X[2]
Kieruj and Moors, 2013		X						X[2]
Kleiner, Lipps, and Ferrez, 2015	X		X	X			X	X[2]
Knäuper, 1999	X							
Knäuper, Belli, Hill, and Herzog, 1997				X				
Koch and Blohm, 2009				X		X		
Krebs and Hoffmeyer-Zlotnik, 2010	X							
Krosnick, Holbrook, et al., 2002				X				
Laurison, 2015				X				

Leeper, 2014				X				X
Lelkes and Weiss, 2015		X	X					X[3]
Lelkes, Krosnick, et al., 2012								X
Lenzner, 2012				X			X	X
Lenzner, Kaczmirek, & Lenzner, 2010		X		X			X	
Lindhjem and Navrud, 2011				X				
Lipps, 2007								X[2]
Lugtig and Lensvelt-Mulders, 2014								X
Macdonald and Thornburg, 2012						X		
Mahon-Haft and Dillman, 2010	X							
Malhotra, 2008	X							
Malhotra, 2009	X							X[1]
Matthijsse, de Leeuw, and Hox, 2015		X	X				X	X
Mavletova and Couper, 2013	X							
Mayerl, 2013		X						X[1]
McCabe,Boyd, Couper, et al., 2002								X
McClamroch, 2011			X					
Medway and Tourangeau, 2015	X	X	X			X		X
Menold and Kemper, 2014	X	X	X			X	X	X[2]
Menold, Kaczmirek, et al., 2014								X
Murdoch, Pryor, et al., 2011								X[3]
Muste, 2014	X	X						X[3]
Narayan and Krosnick, 1996	X	X		X			X	
Nicolaas, Campanelli, et al., 2015	X					X		
O'Halloran, Hu, et al., 2014	X			X				
Olson and Bilgen, 2011		X						
Oppenheimer, Meyvis, et al., 2009								X[1]
Pickery and Loosveldt, 1998				X				
Pickett and Baker, 2014		X				X		X[3]
Pickett, Metcalfe, et al., 2014								X[3]
Prior, 2009								X
Pustejovsky and Spillane, 2009								X
Rasinski, Mingay, and Bradburn, 1994	X							X
Revilla & Ochoa, 2015			X					X[1]
Revilla, 2012								X
Robison, 2014				X				X
Rogelberg, Fisher, et al., 2001						X		
Schonlau and Toepoel, 2015			X					
Serenko and Bontis, 2013	X							
Shoemaker, Eichholz, & Skewes, 2002				X				
Siminski, 2008	X		X			X		
Smyth, Dillman, et al., 2006	X	X						X[1]

Smyth, Olson, and Kasabian, 2014	X	X	X			X		
Staszynska, 2011		X		X				
Steinbrecher, Roßmann, & Blumenstiel, 2014								X
Stern, Dillman, and Smyth, 2007	X							
Stocke, 2006				X		X		X[1]
Stolte, 1994								X
Stratton, Witzke, et al., 2002			X					
Struminskaya, Weyandt, et al., 2015	X		X			X		X
Sturgis, Roberts, and Smith, 2014							X	X
Toepoel, Das, and van Soest, 2008	X		X			X		
Tourangeau, Groves, et al., 2009			X			X		
Turgeon, 2009				X			X	
Turner, Sturgis, and Martin, 2014				X				X
Vicente, Reis, and Santos, 2009		X	X	X				X[1]
Vogl, 2013				X				
Wagner and Zeglovitz, 2014								X[1]
Weijters & Baumgartner, 2013		X						X
Wicker, Park, et al., 1995			X					X[3]
Yan and Keusch, 2015	X							
Yang, Callegaro, et al., 2011								X[2]
Zhang and Conrad, 2014			X					X[1]

Notes. [1]Interview pace (interview duration/ response latencies). [2]Extreme responses (includes extreme plus middle response style). [3]Reliability/ consistency.

Table A4. Summary of results reported in shortlisted articles

Authors	TD	RA	RM	Main Effect	Main Effect of TD	Main Effect of RA	Main Effect of RM	Main Effect(s)	Interaction Effect(s)
Aichholzer, 2013		X	X	X		X	X	+ Extreme responding occurred more in mail than in face-to-face surveys.	+ Lower educated respondents were more likely to tend towards extreme responding in mail survey.
Atkeson, Adams, and Alvarez, 2014				X					
Ausberg and Jäckle, 2015	X	X		X	X	X		+ Increased task difficulty (no. of dimensions) and low attitude certainty and knowledge of substantive matter increase the likelihood of order effects in factorial surveys.	+ Low attitude certainty and little knowledge of substantive matter increase the likelihood of order effects more when task difficulty is high.
Barber, Barnes and Carlson, 2013		X		X		X		+ Respondents with higher levels of insomnia are associated with greater tendency to give random responses and - lower tendency to give socially desirable answers.	
Barge and Gehlbach, 2012									
Bassili and Krosnick, 2000		X		X		X		+ Respondents with more moderate attitudes exhibit more acquiescence. – Not all strength-related attitude attributes moderate all response effects.	
Berinsky and Margolis, 2011	X			X	X			+ Tasks requiring more complex judgements, therefore making them more difficult, yield higher DK responses than easier tasks.	

Bishop and Smith, 2001	X			X	X			+ Long oral questions associated with more recency effects.	
Borgers, Hox, and Sikkel, 2001	X	X		X	X			+ Scale reliability declines with increasing number of response options.	+ Effects varied with respondent characteristics
Borgers, Sikkel and Hox, 2004	X	X		X	X	X		+ Item nonresponse (INR) more likely on some items with more demanding characteristics – INR more likely among children with more years of education	+ INR varies with number of year education and question ambiguity and sensitivity.
Brewer, Hallman, Fiedler, and Kipen, 2004	X	X		X	X	X		+ Fewer symptoms reported by telephone than by mail	+ Interaction with symptom severity (mild symptoms less likely to be recalled by telephone).
Brockington, 2003	X	X		X		X		+ Longer ballot leads to greater primacy effect	+ Low information voters more likely to exhibit primacy effects on long ballots
Callegaro, Yang, Bhola, Dillman, and Chin, 2009			X	X			X	+ More motivated respondents spent more time answering questions	
Castro, 2013		X		X				+ Higher education respondents give more consistent responses.	
Chang and Krosnick, 2009	X	X	X	X	X	X	X	+ More nondifferentiation on telephone (increased TD & RM) than web.	+ Less nondifferentiation on web among respondents with greater survey experience & topic interest (RA & RM).

Chang and Krosnick, 2010	X	X		X	X			+ More nondifferentiation on intercom compared to web.	+ Stronger mode difference for nondifferentiation among those low in cognitive skills. - The reverse was true for response order effects: there was only a mode effect among those high in skills.
Chen, 2011	X	X		X		X		+ Lower data quality (response quality index including measures of item nonresponse and nondifferentiation) in web survey compared to paper and among certain subgroups (esp. among first-generation college students).	
Clifford and Jerit, 2015		X	X	X			X	+ Three out of four warnings significantly increased the passing of Instructional Manipulation Checks (IMCs). Audit and anonymity-based warnings had largest effects. - Feedback had no effect on passing IMCs. - Audit warning increased completion time and decreased INR.	+ Warning messages increase accuracy more for lowest educated. - Warnings have a larger effect on the highly educated, causing them to give more socially desirable answers (esp. in the feedback condition).
Couper, 1997	X	X		X	X			+ Reducing complexity of grid questions through the use of dynamic shading and split grids reduces item nonresponse and motivated underreporting. - No main effect on item nonresponse or nondifferentiation.	
Couper, Tourangeau, Conrad, and Crawford, 2004	X			X	X			+ Primacy effects due to visual display, plus visual categories selected more often than non-visible categories.	

Couper, Tourangeau, Conrad, and Zhang, 2013			X	X			X	+ Respondents expressing a lack of interest in participating have higher item nonresponse (DKs) - but not more nondifferentiation.	
Craig, Runge, Rand-Hendriksen, Ramos-Goni, and Oppe, 2015	X								
Darker and French, 2009	X			X	X			+ Hard to interpret questions associated with greater use of the midpoint.	
De Bruijne and Wijnant, 2014	X								
de Rada & Dominguez-Alvarez, 2014				X				+ Higher primacy effect rates in web surveys. - Item nonresponse lower and longer responses to open questions in web surveys.	
de Rada and Dominguez, 2015	X			X	X			- More non-differentiation in paper survey than in web (contrary to hypothesis). + Extreme responding and midpoint use more likely on paper than web. - Item non-response higher for paper than web.	
de Rada, 2010				X*				- Less item nonresponse in telephone compared to face-to-face mode.	

Dolnicar and Grün, 2012	X	X		X	X	X		- Answer formats offering midpoints have lower Don't Know responses (2 point scales and 7 point scales and semantic differentials produce more DKs).	- Respondents unfamiliar with brands correctly use the DK option when it is offered, suggesting it is not satisficing + Overall the error is larger from people answering where they are not really able.
Dumitrescu and Martinsson, 2015	X		X	X	X		X	- Offering a DK response increases optimising: it decreases midpoint responding, increases correlations between attitudes and behaviours, increases completion times, increases satisfaction with the available response options, and self-rated attention.	+ Providing an instruction to encourage careful responding increases optimising more when the DK is offered compared to not giving the instruction (i.e. reducing task difficulty reduces satisficing more when motivation to optimise is increased).
Eggs and Jäckle, 2015		X	X						
Enns and Richman, 2013			X	X	X		X	+ People who care about the election outcome give fewer DK responses and have a greater correspondence between their reported vote intentions and fundamentals. + Telephone respondents are more likely to report DK and less likely to rely on fundamentals in their vote intention answers.	
Fang, Wen, and Prybutok, 2013	X		X	X	X		X	+ More extreme plus middle responding and smaller variation in responses among web respondents compared with paper respondents in both China and the USA.	+ More satisficing in web mode among Chinese (collectivistic) respondents than among US (individualistic respondents. + More satisficing in web mode by males than females in China.

Fang, Wen, and Prybutok, 2014			X	X			X	+ More extreme plus middle responding and more inconsistent responding observed online than in paper SAQs administered in classroom.	+ Less nondifferentiation among web respondents recruited via social media sites due to moderating effect of sociability.
Fricker, Galesic, Tourangeau, and Yan, 2005	X		X	X*				+ More item nonresponse on telephone than web - More nondifferentiation on web than telephone. Attributed to differences in question design.	
Galesic, Tourangeau, Couper, Conrad, 2008	X			X	X			+ Primacy effects resulted when long lists presented or later categories had to be revealed by a mouse click.	
Gao, House, and Xie, 2015				X				- Those who are younger and have lower incomes are more likely to fail trap question and thus be labelled as 'satisficers'.	
Gehlbach and Barge, 2012	X	X		X	X			+ Presenting conceptually similar items adjacent to one another leads to higher anchoring and adjusting (response to an initial survey item provides a cognitive anchor from which respondents insufficiently adjust in answering the subsequent item).	
Gilbert, 2015	X								
Goldenbeld and Craen, 2013	X			X	X			+ Answers to online panel surveys are associated with greater use of the midpoint and less differentiation. + Answers to face-to-face surveys are associated with greater positivity bias.	

Gooch, 2015	X			X	X			- Easy questions encourage satisficing (guessing on knowledge questions), harder ones discourage it.	- Self-completion respondents more likely to satisfice on easier questions.
Goritz, and Luthe, 2013		X							
Grauenhorst, Blohm, and Koch, 2015			X						
Gray, Blake, and Campanelli, 2014									
Greszki, Meyer, and Schoen, 2015									
Guess, 2015		X	X	X		X	X	- Respondents with more education are more likely to misreport political news consumption. - Respondents who were more interested in politics were more likely to over-report. +Yes/no questions cause most overreporting, then check all, then open.	

Gummer and Rossmann, 2015	X	X	X	X	X	X	X	+ More motivated respondents (those for whom the topic was salient/personally important) took longer to complete the entire survey, suggesting they expended more effort in doing so. - The higher the level of education a respondent has, the shorter the response time. - The more cognitive demanding questions a survey contained (e.g. open ended questions), the longer the response times.	+ Respondents with higher motivation (interest in the topic) are more likely to take longer to answer difficult questions because they are expending the necessary effort to do so properly. + Less motivated respondents answer difficult questions superficially.
Guzy and Leitgob, 2015									
Hauser and Schwarz, 2015				X				+ Respondents who have answered a trap-question before a probabilistic reasoning task (PRT) were more likely to get the PRT right than those who answered the trap question after. Thus greater attention increases accurate responding.	
Heath, Smith, Gilby, and Hoolahan, 2015									
Heerwegh and Loosveldt, 2002a								- No differences between modes in acquiescence and non-differentiation.	
Heerwegh and Loosveldt, 2002b	X			X	X			+ Some evidence of increased item non-response with drop-down lists compared to radio buttons in a web survey, but inconsistent.	

Heerwegh and Loosveldt, 2008			X	X			X	+ Respondents who had to log in to a web survey manually had lower item nonresponse (incl. DK answers) on income questions compared to those automatically logged in.	
Heerwegh, 2009	X		X	X	X		X	+ More item non-response and DK in web compared to face-to-face mode.	
Heerwegh, Vanhove, Matthijs, and Looseveldt, 2005	X		X	X	X		X	+ Web survey respondents showed more DK responding, more non-differentiation, more item-nonresponse and faster completion times than face-to-face respondents.	
Hoehne and Lenzner, 2015				X				+ The longer respondents fixate on the first half of a scale, the more likely they are to select a response from that half of the scale	
Holbrook, Anand, Johnson, Cho, Shavitt, Chávez ,and Weiner, 2014	X	X	X	X	X	X		Mix of positive and negative main effects: Study 1: + Prevalence of heaping varied by question type, - but not by education. Study 2 & 3: + Prevalence of heaping varied by question type, greater self-reported effort = less heaping, - interviewer ratings of R intelligence (more intelligent = more heaping) Study 4: - No main effect of mode; respondents with less education heap less.	Mixed positive and negative interactions between question type and respondent ability. E.g. - Depending on question type, respondents with lower education showed less heaping on behaviour frequency questions. Results were mostly in the direction opposite to that hypothesised by satisficing theory.
Holbrook, Farrar, and Popkin, 2006			X					- Personalising email invitations to a web survey had no effect on data quality (INR, DK rates, and completion times).	

Holbrook, Green, and Krosnick, 2003	X	X	X	X	X	X	X	+ More satisficing (more acquiescence, non-differentiation, and DKs) in telephone compared to face-to-face interviews.	+ Respondents with lower education more likely to satisfice in telephone mode.
Holbrook, Krosnick, Moore, and Tourangeau, 2007	X	X	X	X	X	X	X	+ Greater question comprehension difficulty and later question placement associated with larger response order effects. + Lower education respondents showed larger response order effects.	+ The effect of question comprehension difficulty on response order effects was greatest among low education and older respondents. – The effect of question placement did not vary significantly by level of education.
Hoogendoorn, 2004	X			X	X			+ PDI improved the likelihood of re-reporting assets and changes in the value of assets, which was seen as indicative of a reduction in satisficing as compared to when PDI was not used. However, it was not clear to what extent PDI reduced task difficulty.	
Hox, de Leeuw, and Chang, 2012			X						
Hsieh, 2015			X	X			X	+ Prompts and probes elicit more contact names than no prompts or probes	
Israel and Taylor, 2010	X			X	X			+ Main effect of response order on response selection, sometimes more so with complex questions. - Mixed results of question complexity on response order effects.	

Javeline, 1999	X	X		X		X	X	+ Agree disagree statements encourage greater acquiescence than forced-choice items. + Some evidence that low education respondents acquiesce more.	+ Kasakh respondents more sensitive to question form than Russians.
Johns, 2005	X	X		X	X	X		+ Offering midpoint encourages midpoint responding. + Midpoint responding more common on measures of obscure attitudes. + Low education respondents more likely to select midpoint.	+ Offering midpoint encourages more midpoint selection, particularly for obscure attitude issues compared to less obscure ones.
Kaminska, Mcutcheon, and Billiet, 2010		X	X	X		X		+ Reluctant respondents are more likely to satisfice (composite score indicator) than cooperative respondents, but relationship is explained by cognitive ability not motivation.	
Kampen, 2007	X		X	X	X		X	+ Higher correlations between items due to non-differentiation in long mail survey compared to shorter f2f survey.	
Kaplowitz, Lupi, Yeboah, and Thorp, 2013	X								
Kelly, Harper, and Landau, 2008	X		X	X	X		X	+ Respondents in interviewer mode gave longer answers to open questions than those in paper and electronic modes. – Quality of responses was lower in interview mode (more repetition, less concise).	

Kieruj and Moors, 2010	X			X	X			– No evidence of relation beween task difficulty (scale length) and ERS. + More midpoint responding with longer scales.	
Kieruj and Moors, 2013	X	X		X		X		– No evidence of relation between task difficulty (scale length) and acquiescence and ERS. + Older respondents showed more ERS.	
Kleiner, Lipps, and Ferrez, 2015	X	X	X	X	X	X	X	+ Questions that are more complex are associated with a greater use of don't know. + Lower language ability is associated with greater use of don't know. + Low motivated respondents are associated with greater use of don't know and mid-scale responding.	
Knäuper, 1999		X		X		X		+ Older respondents show stronger response order effects. – Education less important than age as a predictor of satisficing.	
Knäuper, Belli, Hill, and Herzog, 1997	X	X		X	X	X		+ More DK responses on more difficult questions. + More DK responses among respondents with lower cognitive ability.	+ Respondents with low cognitive ability more likely to answer DK to more difficult questions. This was not the case for respondents with high cognitive ability.
Koch and Blohm, 2009		X		X		X		+ More DK responses among older, less educated and less politically interested respondents. (More DK in ESS countries using PAPI than those using CAPI.)	

Krebs and Hoffmeyer-Zlotnik, 2010	X			X	X			+ Primacy effect more common on scales starting with positive labels than scales starting with negative labels (due to positivity bias). – No primacy effect when scale starts with negative label, but more midpoint responding.	
Krosnick, Holbrook, Berent, Carson, Hanemann, Kopp, Mitchell, Presser, Ruud, Smith, Moody, Green and Conaway, 2002	X	X	X	X	X	X	X	+ Offering a DK option provides an invitation to satisfice. Attraction to NO options greatest among low education respondents, when respondents are not held accountable for their answers and on items that appear later in the questionnaire, when respondents devote less effort to answering questions.	+Attraction to no opinion option greatest when ability and motivation are low.
Laurison, 2015		X	X	X		X		+ Cognitive ability predicts DK responding - DKs not entirely explained by satisficing: income still significantly associated even after controlling for cognitive ability and attitude to surveys (motivation).	
Leeper, 2014			X	X			X	+ Respondents low in need to evaluate were more likely to give 'non-informative' answers - Respondents high in need to evaluate gave more extreme responses to attitude measures.	
Lelkes and Weiss, 2015		X							
Lelkes, Krosnick, Marx, Judd, and Park, 2012			X	X			X	+ Allowing participants to answer questions completely anonymously sometimes increased report of socially undesirable attributes, - but reduced accuracy and increased	

								nondifferentiation.	
Lenzner, 2012		X	X	X	X	X	X	+ More difficult question wording increases 'don't know' responding. + Those who scored lower on the verbal intelligence test were more likely to use DK responses. + Those who were less motivated (lower need for cognition and need to evaluate) more likely to use DK responses.	+ Respondents with lower verbal intelligence scores were more likely to satisfice when the task was difficult than those with higher scores.
Lenzner, Kaczmirek, and Lenzner, 2010	X			X	X			- Cognitive burden of questionnaire items not found to affect data quality as measured by NO responding, acquiescence and primacy. + Suboptimal questions attracted more midpoint answers.	
Lindhjem and Navrud, 2011	X		X					- Internet surveys did not encourage DK responding more than face-to-face interviews in stated preference/ contingent evaluation studies.	
Lipps, 2007		X	X	X		X		+ Low education respondents give more extreme responses.	
Lugtig and Lensvelt-Mulders, 2014	X								
Macdonald and Thornburg, 2012	X			X	X			+ Most important issues questions are associated with lower item nonresponse rate in mail survey than phone survey.	

Mahon-Haft and Dillman, 2010	X		X	X	X		X	+ Poor screen design was more cognitively demanding and less motivating for respondents, leading to more primacy effects, and longer response times.	+ Effects of screen design were stronger for more demanding questions (e.g. open-ended items).
Malhotra, 2008		X		X		X		+ Low education respondents more prone to primacy effects.	+Low education respondents with fast completion times more prone to primacy effects in unipolar rating scales.
Malhotra, 2009	X	X		X	X			- More order effects on simple tasks.	- No response order effects for complex task among all educational groups. - More order effects on simple tasks, particularly among low education respondents.
Matthijsse, de Leeuw, and Hox, 2015			X						
Mavletova and Couper, 2013									
Mayerl, 2013		X		X		X		+ Low chronic attitude accessibility is associated with greater acquiescence bias.	
McCabe,Boyd, Couper, Crawford, and D'Arcy, 2002		X		X	X			+ Web respondents used more rounded numbers than mail respondents. - No other statistically significant differences between modes on satisficing indicators.	

McClamroch, 2011	X	X		X	X	X		+ Respondents with low academic performance had more difficulty completing the questionnaire. + Respondents spent less time completing more difficult questions.	
Medway and Tourangeau, 2015		X	X	X			X	+ Incentive led to a significant reduction in item non-response.	
Menold and Kemper, 2014				X					
Menold, Kaczmirek, Lenzner, and Neu sar, 2014									
Murdoch, Pryor, Griffin, Ripley, Gackstetter, Polusny, and Hodges, 2011		X	X	X	X	X		+ Reliability of sexual harassment scale significantly worse among soldiers with no college experience. – Easier version did not improve results so they are unlikely to be the result of satisficing.	+ Male soldiers with low education less motivated to optimise.
Muste, 2014	X	X		X	X			+ Telephone mode produces higher levels of reported closeness (due to increased social desirability bias). - Sequential presentation format (like yes/ no vs. check all) produces higher levels of reported closeness (due to reduction in opportunities to satisfice) and more question order effects. - No differences between modes in primacy and recency rates.	Mode interacts with question format. + Face-to-face block interviews produce lower reported closeness and greater group differentiation than phone sequential interviews. +Question order variation in telephone interviews generates effects consistent with satisficing, consistency bias and social desirability.

Narayan and Krosnick, 1996		X		X		X		+ Lower education associated with greater strength of 7 response effects: response order, acquiescence, midpoints (not status quo), no opinion on familiar and obscure issues, forbid/allow, balance & question order effects.	+ More strong satisficing apparent for moderately skilled respondents due to interaction with question type (if Q offers obvious invitation to satisfice).
Nicolaas, Campanelli, Hope, Jäckle, and Lynn, 2015									
O'Halloran, Hu, Malarcher, McMillen, Valentine, Moore, Reid, Darling, and Gerzoff, 2014	X	X		X	X	X		+ Children are prone to primacy effects in self-administered questionnaire. + Question with a non-applicable response option that also is the first option are vulnerable to primacy effects due to response selection challenges.	
Olson and Bilgen, 2011		X	X	X			X	- Experienced interviewers obtain higher levels of acquiescent reports, not mediated by differential pace. - Interviewer behaviours encourage acquiescence via increased rapport, accounting for more variance than respondent education (which had mixed effects across 2 surveys).	
Oppenheimer, Meyvis, and Davidenko, 2009	X		X	X			X	+ Respondents with higher need for cognition were less likely to fail the 'instructional manipulation check' (i.e. more likely to read survey instructions) and gave more reliable answers. – Respondents who failed the check did not report being less motivated.	

Pickery and Loosveldt, 1998		X		X		X		+ More DK responses by low educated respondents. – Significant interviewer effect on DK answers, but not clear what it is from the available variables.	
Pickett and Baker, 2014		X	X						
Pickett, Metcalfe, Baker, Gertz, and Bedard, 2014			X	X			X	+ Being able to choose between two different survey versions increased response rates, reduced item nonresponse and improved the consistency of answers.	
Prior, 2009	X			X	X			- Over-reporting of news exposure caused by imperfect recall and flawed inference rules due to task difficulty, not satisficing (lack of motivation to process).	
Pustejovsky and Spillane, 2009	X			X	X			+ Order of name generator prompts affects validity of inferences from social network data due to primacy effects resulting from satisficing.	
Rasinski, Mingay, and Bradburn, 1994	X			X	X			+ Mark all that apply questions generated fewer reports than yes/no items. + Weak evidence that items near the start of the list are more likely to be selected with both types of question.	- No evidence that primacy effects are more likely with mark-all-that-apply instructions, which were hypothesised to encourage satisficing.
Revilla & Ochoa, 2015	X	X	X	X			X	+ The shorter the response time, the lower quality of answers provided. No relationship between reported effort and quality, but higher reported effort correlates with longer response time.	

Revilla, 2012	X	X							
Robison, 2014	X	X	X	X	X	X	X	+ Higher level of knowledge recorded using for closed questions than open-ended questions (task difficulty). + Higher education = less likely to select DK. + More motivated (interested) = less likely to select DK.	
Rogelberg, Fisher, Maynard, Hakel, and Horvath, 2001			X	X			X	+ More negative attitudes to surveys associated with more item non-response (but effect sizes small).	
Schonlau and Toepoel, 2015		X		X		X		+ Straightlining is more prevalent the lower down the education gradient one goes. + Straightlining increases with length of panel membership (net of a series of controls + education).	
Serenko and Bontis, 2013									
Shoemaker, Eichholz, and Skewes, 2002	X			X	X			+ Questions requiring more cognitive effort elicit more don't knows, but also correlate significantly with refusals.	
Siminski, 2008	X	X		X				+ Evidence that question order influences positivity or negativity of responses in a battery due to nondifferentiation. - Only very weak evidence of stronger order effects on nondifferentiation among older	

								respondents.	
Smyth, Dillman, Christian, and Stern, 2006	X			X	X			+ Check all that apply questions are answered more quickly and elicit fewer response selections compared with forced choice questions.	
Smyth, Olson, and Kasabian, 2014	X		X	X	X		X	+ Respondents who answered to a non-preferred mode (less motivation) were more likely to satisfice when the question format allowed or encourage it (more task difficulty), while those who answered in a preferred mode did not.	+ Effect of preferred mode moderated by question format.
Staszynska, 2011		X	X	X			X	+ Respondents who seem to face a high level of insecurity and threat during the interview tend to give more acquiescent answers. - Acquiescence positive related to political interest and education.	- DKs less likely among younger, educated and interested respondents.
Steinbrecher, Roßmann, and Blumenstiel, 2014	X	X	X	X	X	X	X	+ Breakoffs are more likely when higher n of questions, when motivation is lower, when older. Little difference between early and late breakoffs.	
Stern, Dillman, and Smyth, 2007	X	X		X	X			- Visual layout of web surveys affects different demographic groups similarly (regardless of age and education). +Weak evidence of stronger effects for less educated respondents. + Reversing response options results in more DK responses.	
Stocke, 2006		X	X	X		X	X	- More favourable attitudes towards surveys alone not significantly predictive of lower rates of item nonresponse + except for Don't Know rates.	+ The more accessible (pre-consolidated) the attitudes were, the more predictive of nonresponse they were (except for DK rates). Accessibility depends on previous survey experience.

Stolte, 1994	X		X	X	X		X	+ More reliable data collected when participants respond to vignettes in quiet, isolated conditions, and when offered incentives to respond carefully.	
Stratton, Witzke, Jacob, Sauer, and Murphy-Spencer, 2002	X			X	X			- Less nondifferentiation when respondents had to rate different faculty members on the same trait compared to when they had to rate the same faculty member on different traits (increased task difficulty).	
Struminskaya, Weyandt, and Bosnjak, 2015		X		X		X		+ Smartphone respondents have most satisficing (item nonresponse, nondifferentiation, shorter answers to open-ended questions and faster pace). Tablet and PC similar. Sig differences in satisficing also for those respondents whose switching includes smartphones.	
Sturgis, Roberts, and Smith, 2014			X						+ Respondents most interested in the topic are more likely to select the midpoint as a face-saving way to say DK - not as a satisficing strategy
Toepoel, Das, and van Soest, 2008	X	X		X		X		+ Trained respondents satisfice more (shorter completion time, more nondifferentiation and primacy) than fresh respondents.	– Variation in question design had the same effects on trained and fresh respondents.
Tourangeau, Groves, Kennedy, and Yan, 2009			X	X			X	+ Less nondifferentiation among respondents with positive attitudes towards survey sponsor. - More item nonresponse among respondents with greater topic interest. - No impact of sponsor affinity and topic interest on other satisficing indicators (inconsistent responding, fast completion times).	

Turgeon, 2009	X	X		X	X	X		+ More DK responses among respondents with less knowledge. + Fewer DK responses when respondents encouraged to think carefully about attitude topic.	- Encouraging thought among the most knowledge-able leads to expression of more uncertain/ ambivalent attitudes.
Turner, Sturgis, and Martin, 2014									
Vicente, Reis, and Santos, 2009	X			X	X			- Mobile phone respondents had less item nonresponse than fixed line phone respondents and longer completion times.	
Vogl, 2013									
Wagner and Zeglovitz, 2014	X								
Weijters, Baumgartner, and Schillewaert, 2013	X			X	X			+ Variations in keying direction of items lead to inconsistent responses to items measuring the same construct (due to acquiescence and random responding).	
Wicker, Park, McCann, and Hamman, 1995			X				X		
Yan and Keusch, 2015		X	X						

Yang, Callegaro, Bhola, and Dillman, 2011	X		X	X			X	+ Greater endorsement of extreme endpoints in IVR compared to web.	+ Mode effects were weaker among respondents with greater motivation.
Zhang and Conrad, 2014		X	X	X		X	X	+ Speeding more prevalent among younger respondents. + Straightlining more prevalent among low educated respondents and younger respondents.	+ Speeding more strongly predicts straightlining among lower educated respondents.