

# Organizational Research Methods

<http://orm.sagepub.com>

---

## **Attitudes toward Surveys: Development of a Measure and Its Relationship to Respondent Behavior**

Steven G. Rogelberg, Gwenith G. Fisher, Douglas C. Maynard, Milton D. Hakel and Michael Horvath

*Organizational Research Methods* 2001; 4; 3

DOI: 10.1177/109442810141001

The online version of this article can be found at:

<http://orm.sagepub.com/cgi/content/abstract/4/1/3>

---

Published by:

 SAGE Publications

<http://www.sagepublications.com>

On behalf of:



The Research Methods Division of The Academy of Management

**Additional services and information for *Organizational Research Methods* can be found at:**

**Email Alerts:** <http://orm.sagepub.com/cgi/alerts>

**Subscriptions:** <http://orm.sagepub.com/subscriptions>

**Reprints:** <http://www.sagepub.com/journalsReprints.nav>

**Permissions:** <http://www.sagepub.com/journalsPermissions.nav>

**Citations** (this article cites 21 articles hosted on the SAGE Journals Online and HighWire Press platforms):

<http://orm.sagepub.com/cgi/content/refs/4/1/3>

# Attitudes Toward Surveys: Development of a Measure and Its Relationship to Respondent Behavior

STEVEN G. ROGELBERG

GWENITH G. FISHER

*Bowling Green State University*

DOUGLAS C. MAYNARD

*State University of New York at New Paltz*

MILTON D. HAKEL

*Bowling Green State University*

MICHAEL HORVATH

*Michigan State University*

*Attitudes toward surveys were conceptualized as having two relatively independent components: feelings about the act of completing a survey, called survey enjoyment, and perceptions of the value of survey research, called survey value. After developing a psychometrically sound measure, the authors examined how the measure related to respondent behaviors that directly impact the quality and quantity of data collected in surveys. With the exception of a response distortion index, survey enjoyment was generally related to all the respondent behaviors studied (item response rates, following directions, volunteering to participate in other survey research, timeliness of a response to a survey request, and willingness to participate in additional survey research). Survey value was related to item response rates, following directions, and willingness to participate in additional survey research. A respondent motivation and intentions explanation is provided. Although the identified effect sizes were generally small, a number of practical implications emerge and are discussed.*

The use of surveys to address organizational research needs (e.g., pinpointing areas of concern, monitoring program impact, and providing input for future decisions) has

---

*Authors' Note:* We wish to thank Peter Bachiochi, Jim Conway, Scott Highhouse, Dale Klopfer, Alexandra Luong, and Mike Zickar for their valuable insights. Portions of this article were presented at the annual convention of the Society for Industrial and Organizational Psychology, St. Louis, Missouri, 1997. Correspondence concerning this article should be addressed to Steven G. Rogelberg, Department of Psychology, Bowling Green State University, Bowling Green, OH, 43403; phone: (419) 372-6940; e-mail: rogelbe@bgnet.bgsu.edu.

*Organizational Research Methods*, Vol. 4 No. 1, January 2001 3-25  
© 2001 Sage Publications, Inc.

increased tremendously over the past half century (Kraut, 1996). As a result, millions of employees are asked to complete at least one organizational questionnaire each year (Gallup, 1988). Given the ubiquity of surveys, it is surprising how little research has examined individuals' attitudes toward this frequently used research methodology (i.e., the degree of positive or negative feelings a person has about surveys). The present study addresses this deficiency by introducing a reliable measure of attitudes toward surveys and examining how those attitudes relate to survey respondent behaviors that affect data quality and quantity (e.g., completing survey items, following directions).

Research on attitudes toward surveys began with the descriptive work of Sjoberg (1955), who interviewed 148 people about their attitudes toward government polling (e.g., "Do you think the city should set up controls to restrict the interviewing of people?"). Although this study did not examine the relations between attitudes about polling and other variables (e.g., how people respond to surveys), it identified respondents' attitudes toward surveys as an important consideration in conducting survey research. Other research has found that the number of requests an individual receives to participate in survey projects was related to that individual's attitudes toward surveys. Specifically, individuals inundated with survey requests expressed more negative attitudes toward surveys than individuals with fewer survey solicitations (Goyder, 1986). Attitudes toward surveys were also found to be unrelated to respondents' decision-making vocalizations when completing a survey, as assessed via verbal protocol analysis (Helgeson & Ursic, 1994; Ursic & Helgeson, 1989). More recently, Baruch (1999) argued that poor attitudes toward the value of survey research may negatively affect response rates.

### Why Study Attitudes Toward Surveys?

In addition to the sheer dearth of research examining attitudes toward our most frequently used organizational research methodology, we believe that studying attitudes toward surveys is warranted on theoretical, practical, and ethical bases. Tourangeau (1987) theorized that an individual proceeds through four stages of cognitive processing when responding to survey items: (a) interpretation of the question, (b) retrieval of relevant information, (c) processing of the retrieved information, and (d) reporting of a response to the question. Krosnick (1991), building on this basic process model, postulated that individual effort exerted across these four steps determines the quality of the obtained data. For example, an individual who integrates retrieved information carelessly or selects a response choice haphazardly is not responding in an effortful manner and, thus, provides low-quality data. Krosnick suggested that effort exerted is a function of both task characteristics (e.g., question clarity, survey topic) and individual differences. Although individual difference factors such as ability and personality traits were explicitly mentioned by Krosnick, we posit that another factor that should theoretically affect respondent effort and subsequent behavior is attitudes toward surveys. This proposition is consistent with the theory of reasoned action and the abundant amount of research demonstrating relations between attitude and behavior (e.g., Ajzen & Fishbein, 1977; Fishbein & Ajzen, 1975). Furthermore, Rogelberg, Luong, Sederburg, and Cristol (2000) explicitly identified attitudes toward surveys as being one of a number of variables that should have a theoretical link to respondent motivation to comply with a survey request. It is also important to recognize that the expectation that individ-

uals' attitudes toward a research methodology affect how they respond to that methodology is not unprecedented. For example, Arvey, Strickland, Drauden, and Martin (1990) developed the Test Attitude Survey (TAS) to assess the test-taking motivation of job applicants as compared to job incumbents. Schmit and Ryan (1992) found that scores on the TAS moderated the validity of both an ability test and a personality test used to predict performance. Finally, Baruch (1999) found that the average response rates of studies in five leading organizational journals declined from 1975 (64.4%) to 1985 (55.7%) to 1995 (48.4%). He argued that declines in response rates may be due to oversurveying of organizations and growing negative attitudes toward the value of survey research (e.g., "How will this research benefit me or anyone else?"). Together, this research and theorizing underscore the importance of understanding and accounting for respondents' attitudes toward a research methodology.

Practically speaking, a survey effort is only as good as the data collected ("garbage in, garbage out"). Therefore, it is essential to examine any variable that may impact the quality and quantity of data collected from surveys. What makes attitudes toward surveys a particularly appealing candidate for study is the fact that existing research and theory (e.g., persuasion, the elaboration likelihood model, social judgment theory) on attitude change has suggested that attitudes are indeed malleable (e.g., Petty & Cacioppo, 1981). Therefore, to the extent that attitudes toward surveys are related to respondent behavior, researchers can begin identifying antecedents of attitudes toward surveys, which in turn would lead to an agenda to actively manage and improve those attitudes in potential respondents (e.g., what practices promote positive attitudes toward surveys?). In addition, if attitudes toward surveys are related to respondent behavior, discussion of how to statistically improve data quality by considering attitudes toward surveys can occur.

Finally, the assessment of attitudes toward surveys is a legitimate ethical goal in and of itself. Given that we are constantly asking individuals to complete surveys, it is our responsibility to understand and work to improve attitudes toward surveys, even if such attitudes are not related to respondent behavior.

### **The Present Study**

This study contains three main parts. First, an attitudes toward surveys measure was developed and examined in a pilot study. Next, data from two research samples were used to examine the relationship of attitudes toward surveys to respondent behaviors. Sample 1 consisted of internal customers who received a mail survey assessing their satisfaction with their informational services division. With sample 1, we examined relationships between attitudes toward surveys and respondent behaviors such as response rate, following directions, and timeliness of a response to a survey request. To address the possibility that individuals with negative attitudes toward surveys may not return their mail survey (which would have created range restriction in the principle independent variable), we concurrently collected data from a second sample. Sample 2 consisted of undergraduate students in psychology courses who were asked to complete a survey during class time. By conducting a survey during class time, students, in a sense, were compelled to complete the survey. As a result, self-selection out of the survey process (and thus range restriction) was allayed. It is noteworthy that although students could refuse to participate, all students did in fact complete the survey. With sample 2, we examined relationships between attitudes toward surveys and survey

behaviors such as response distortion, following directions, and item response rates. Furthermore, sample 2 examined individuals' willingness to participate in future research efforts. Finally, using data across the pilot study, sample 1, and sample 2, a more thorough psychometric evaluation of our proposed measure was undertaken.

### Hypotheses

Our main hypothesis is that attitudes toward surveys are positively related to respondent behavior such that individuals with positive attitudes toward surveys not only will express a greater desire to participate in survey efforts but, from a researcher's perspective, will complete surveys in a higher quality manner compared with those individuals with poorer attitudes toward surveys as indexed by item completion rates, following directions indexes, a distortion index, and a timeliness of survey response index. The rationale for this general hypothesis is threefold. As discussed earlier, effortful responding has been theoretically linked to respondent motivation, which in turn has been theoretically linked to a variety of individual difference variables (Krosnick, 1991); individual difference variables that have some conceptual similarity to attitudes toward surveys (e.g., need for cognition, interest in the survey topic). Besides this respondent motivation literature, our general hypothesis is also consistent with the research demonstrating relations between attitudes, intentions, and behaviors (e.g., Ajzen & Fishbein, 1977; Fishbein & Ajzen, 1975). Namely, given that individuals with positive attitudes toward surveys, by definition, view surveys positively, these individuals should be more likely to develop intentions to complete surveys in effortful ways. Based on the theory of reasoned action, these intentions should be strong predictors of relevant survey behaviors. Finally, cognitive consistency theories, such as balance theory (Heider, 1946, 1958) and cognitive dissonance theory (Festinger, 1957), also support the hypothesized link between attitudes toward surveys and survey behavior. Both of these theories postulate that people have a strong need for consistency (consonance) among their beliefs and actions. Not acting in a manner consistent with one's beliefs is disturbing to an individual and creates an uncomfortable psychological experience, called dissonance. People attempt to avoid this dissonance by trying to act in a manner consistent with their beliefs. In the case of attitudes toward surveys, it may be inconsistent and dissonance provoking for an individual with positive attitudes toward surveys to respond poorly to surveys. Likewise, it may be inconsistent and dissonance provoking for an individual with negative attitudes toward surveys to respond in a high-quality manner.

Overall, in this study, we develop and introduce a measure of attitudes toward surveys. Then, we examine whether scores on the measure help us to understand respondent behavior. We recognize that attitudes toward surveys is one of many variables that may relate to how surveys are completed. In fact, one can consult the respondent motivation and effort literature (e.g., Krosnick, 1991; Podsakoff & Organ, 1986) or the survey response rate literature (e.g., Armstrong & Lusk, 1987; Fox, Crask, & Kim, 1988; Heberlein & Baumgartner, 1978; Yammarino, Skinner, & Childers, 1991; Yu & Cooper, 1983) to identify a host of other variables such as need for cognition, interest in the topic, rewards, attitudes toward the survey sponsor, and cognitive ability that may affect respondent behavior. Although each variable is worthy of study given its potential impact on data quality and quantity, this study attempts to contribute to the respon-

dent behavior literature by examining a variable that has received nearly no attention despite the aforementioned theoretical, practical, and ethical appeal.

### Conceptualizing and Measuring Attitudes Toward Surveys

Consistent with the discussion above, we conceptualized attitudes toward surveys broadly as the degree of positive or negative feelings a person has about surveys in general. We chose to examine general attitudes about surveys rather than attitudes toward a specific survey based on the following beliefs: (a) individuals possess general attitudes toward surveys, (b) general attitudes toward surveys may be superordinate and overarching of the attitudes toward specific surveys, (c) attitudes toward specific surveys are confounded with the actual characteristics (e.g., survey topic and length) of the survey and thus are situation specific, and (d) general attitudes are useful in predicting sets of conceptually related behaviors (Rosse & Noel, 1996). After conceptualizing the construct in this manner, we sought out existing measures that could assess the construct we were interested in. Unfortunately, the existing attitudes toward surveys measures were not adequate for our purposes.

Preexisting attitudes toward surveys measures tended to be oriented toward political polling (e.g., Goyder, 1986; Sjoberg, 1955) or marketing (Schleifer, 1986). For one more general attitudes toward surveys measure (e.g., Helgeson & Ursic, 1994), we were only able to track down a sample item. A common denominator across scales was that little psychometric or scale development information was provided by the authors. Given that an extant measure did not meet our needs, we began the process of developing a measure. To do so, three subject matter experts (SMEs) generated items that sampled the content domain as specified above (the degree of positive or negative feelings a person has about surveys in general). In addition, some items found on previous attitude measures that were relevant to surveying in general were included (“completing surveys is a waste of time”) or adapted (e.g., “polls and research surveys are used to help manufacturers produce better products” became “a lot can be learned from information gathered from surveys”). In total, 50 items were generated, gathered, or adapted. The SMEs independently sorted the 50 items (via Q-sort technique) into categories based on their conceptual and logical similarity; two dimensions of items emerged (with 90% agreement among SMEs). Items in the first dimension, survey enjoyment, assess the degree to which the respondent likes to participate in survey research (e.g., he or she likes filling out a survey). The second dimension, survey value, contains items that assess a respondent’s perception of the worth of surveys for collecting data and conducting research. For example, an individual who feels that much can be learned from information gathered from surveys and/or feels that surveys are useful ways of gathering information has positive perceptions of survey value.

The next step was to greatly reduce the number of items used to assess these two identified dimensions of attitudes toward surveys. Keeping the measure brief was critical because we wanted the scale to be usable by practitioners but not seem tedious or salient to respondents. After removing obviously redundant items and informally pilot testing the measure with other SMEs, a shorter measure of the two facets was created. The shortened measure contained 10 items. Five items (3 positively worded items and 2 negatively worded items) assessed survey enjoyment, and 5 items (3 positively worded items and 2 negatively worded items) assessed survey value. Ideally, it was our hope to further reduce the scale to six questions (we wanted the measure as short as

possible without sacrificing psychometric quality). Namely, we wanted to identify two positively worded and one negatively worded item for each subscale (the negatively worded item should help allay response sets).

### Pilot Sample

Twenty-five research assistants, unaware of the pilot study's purpose, recruited a convenience sample (family and friends) of full-time employees to complete a pilot survey. Potential survey respondents were told that the study was about understanding work attitudes. One hundred twenty-three individuals (63% female) participated in the pilot study. The average age of respondents was 32 years ( $SD = 11$ ). Of the respondents, 63% had completed college and 50% held management positions. On average, respondents reported having been asked to participate in 2.8 ( $SD = 2.7$ ) surveys (excluding the present one) over the previous 6 months. The employment backgrounds of the participants were highly varied, ranging from retail operations to manufacturing.

### Pilot Survey

In an attempt to prevent participants from assuming the purpose of the study, the survey administered looked like a typical employee attitude survey. Six items constituted a job satisfaction measure (coefficient alpha = .79). These items (e.g., "How satisfied are you with your job?") were answered on a 5-point Likert-type scale ranging from *very dissatisfied* to *very satisfied*. A job involvement measure (e.g., "I live, eat, and breathe my job") containing three items (coefficient alpha = .71) was completed on a 7-point Likert-type scale from *strongly disagree* to *strongly agree*. Using the same 7-point agreement response scale, a four-item role clarity measure (e.g., "My supervisor makes it clear how I should do my work"; coefficient alpha = .86) and a 13-item role overload measure (e.g., "I am constantly under heavy pressure on my job"; coefficient alpha = .82) were administered. Finally, of primary interest, the 10 items assessing attitudes toward surveys were administered (see Table 1 for a list of the items).

### Findings

Means and standard deviations for the attitudes toward surveys items can be found in Table 1. Responses to each item were normally distributed, with no outliers or skewed distributions. A factor analysis was conducted using the 10 attitudes toward surveys items. In the first factor analytic run, two strong content factors emerged (survey value and survey enjoyment) along with a weaker third factor. As is not uncommon in factor analyses (Schriesheim & Eisenbach, 1995), the weaker third factor was a method factor containing the negatively worded items (these items also cross loaded on their respective content factors). Next, we reran the factor analysis constraining the solution to two factors. The factor loadings for the attitudes toward surveys items can be found in Table 1 (the first 5 items represent survey enjoyment, and the second 5 items represent survey value). Table 1 also lists each item's correlation with its respective subscale total score (e.g., a survey enjoyment item's correlation with the survey enjoyment total score). Although each item loaded appropriately, and fairly high, we still wanted to reduce the number of items such that each subscale was assessed by two positively and one negatively worded item. To do so, we dropped the "worst" posi-

*Table 1*  
Attitudes Toward Surveys Items and Intercorrelations Using the Pilot Study Data

<i>Item</i>	<i>Mean</i>	<i>SD</i>	<i>Factor 1</i>	<i>Factor 2</i>	<i>Item Subscale Correlation</i>
<i>1. I do not like filling out surveys<sup>a</sup></i>	3.17	0.86	.67	.28	.61
<i>2. Surveys are fun to fill out</i>	2.71	0.82	.88	.12	.77
<i>3. I enjoy filling out surveys</i>	2.77	0.83	.88	.13	.78
4. Surveys are exciting to fill out	2.59	0.82	.81	.11	.64
5. I hate filling out surveys <sup>a</sup>	3.33	0.84	.63	.37	.60
<i>6. A lot can be learned from information gathered from surveys</i>	3.58	0.88	.18	.67	.54
<i>7. Nothing good comes from completing a survey<sup>a</sup></i>	3.66	0.72	.05	.79	.57
<i>8. Surveys are useful ways to gather information</i>	3.71	0.80	.14	.79	.68
9. Completing surveys is a waste of time <sup>a</sup>	3.60	0.74	.21	.72	.53
10. Completing surveys is a good way to express my thoughts	3.35	0.85	.28	.58	.51

*Note.* Items were answered on a 5-point Likert-type scale from *strongly disagree* to *strongly agree*. Items 1 through 5 represent survey enjoyment. Italicized items were retained.

a. Reverse-scored item.

tively worded item and the “worst” negatively worded item (the lowest factor loading and item subscale correlation) from each of the two subscales, respectively. The six items chosen are shown in italics in Table 1.

A confirmatory factor analysis of the remaining six items suggested that the anticipated two-factor structure still fit the data well (root mean square error of approximation = .03, normed fit index = .94,  $\chi^2[8] = 16.16$ ,  $p > .01$ , comparative fit index = .96; there were no significant Lagrange multipliers, no items cross loaded, and factor loadings were statistically significant at  $p < .01$ ). A one-factor confirmatory model was also tested but did not fit the data (root mean square error of approximation = .10, normed fit index = .66,  $\chi^2[9] = 89.845$ ,  $p < .01$ , comparative fit index = .68). The coefficient alphas for the two attitudes toward surveys measures were fairly high given that they contained only three items (alpha = .74 for survey value, alpha = .83 for survey enjoyment). Furthermore, survey value and survey enjoyment were only moderately correlated with one another ( $r = .33$ ,  $p < .05$ ).

Table 2 displays the intercorrelations of each of the variables assessed on the pilot survey. Of particular note from a discriminant validity standpoint is how survey enjoyment and survey value relate to the various work attitudes. With the exception of one small correlation ( $r = .18$  for survey enjoyment and role clarity), the subscales were not related to the work attitudes assessed on the same survey.

### Summary of the Pilot Study

Overall, based on the construct development, attitude toward surveys was found to have two relatively distinct components: survey enjoyment and survey value. The



*Table 2*  
Intercorrelations Between Measures Contained in the Pilot Survey

<i>Scale</i>	<i>Mean</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
1. Survey value	3.64	0.68					
2. Survey enjoyment	2.88	0.72	.33**				
3. Job satisfaction	3.37	0.78	.12	.09			
4. Job involvement	3.78	1.32	.03	.16	.31**		
5. Role overload	5.74	0.97	.01	.04	-.24**	.24**	
6. Role clarity	4.96	1.38	.12	.18**	.48**	-.14	.15

\*\* $p < .05$ .

reduced measure created to assess these facets demonstrated appropriate dimensionality and adequate internal consistency for survey value and survey enjoyment, which is especially noteworthy given that the scales were quite brief. Furthermore, the observed small and generally nonsignificant correlations between the work attitude constructs and survey value and survey enjoyment, respectively, provide discriminant validity evidence.

Whereas the pilot study demonstrated the psychometric quality of the measure (given that respondents in the pilot study completed the survey in the presence of a research assistant, we found almost no incidences of poor respondent behaviors), the next two research samples were designed to assess the criterion-related validity of the measure by examining whether an individual's attitudes toward surveys were related to certain respondent behaviors. We studied each attitudes about surveys dimension separately in subsequent data samples for a number of reasons. First, the item development content analysis suggested that each dimension has a different meaning as it relates to attitudes about surveys. There seemed to be little, if any, theoretical rationale for combining the two dimensions. In addition, the intercorrelations between the attitudes toward surveys dimensions were relatively low, and the factor analysis yielded two distinct factors. Finally, this was the first study of its kind to systematically examine these attitudes toward surveys variables, and therefore we thought we could better understand the relations between specific dimensions of attitudes about surveys by empirically examining each dimension separately. Given the lack of theoretical and empirical work with regard to attitudes toward surveys, differential hypotheses for each dimension were not forwarded.

### Sample 1: Internal Customers

To examine whether attitudes toward surveys were related to a set of respondent behaviors, we collected some field data as part of an organization's customer satisfaction assessment effort. Namely, internal customers of information services completed mail surveys (which included the attitudes toward surveys measure) assessing satisfaction with services rendered. Because the data collected were part of a systematic customer satisfaction effort to be used for organizational planning and improvement purposes, the research survey needed to be short in length and free of "suspicious"-looking content. As a result, only a limited number of respondent behavior indexes could be studied.

## Respondent Behaviors

Along with attitudes toward surveys, the following indexes of respondent behavior were examined: open-ended item response rate, close-ended item response rate, following directions, and timeliness of survey response.

*Open- and close-ended item response rates.* Although researchers typically want respondents to complete all answerable items on a survey, items are often left unanswered. If a number of people skip a particular question, it may result in insufficient data for analysis. More important, a concern arises with regard to whether nonresponders are systematically different from responders for a given item (i.e., item nonresponse bias).

*Following directions.* Individuals who do not respond to a survey in a manner consistent with the directions provide potentially meaningless and misleading data. An example of not following directions is a respondent's circling multiple responses to an item that asks for only one response.

*Timeliness of survey response.* After receiving a survey in the mail, a respondent may choose to complete and return the survey immediately, respond after a delay, or not return the survey at all. Certainly, researchers desire respondents to complete the survey in a timely manner, since a quick response to a survey request mitigates against the possibility that potential respondents will misplace or forget the survey they are to return. In addition, when surveys are returned promptly, researchers need not spend the time and money to send follow-up requests for participation.

## Method

### PARTICIPANTS

Sixty internal customers (81% held management positions) of information services from a large midwestern financial institution returned the survey (62% response rate). Participants were employed in a wide variety of functions, from retail to manufacturing. The majority of participants worked full-time (74%) and had been with their present employer for more than 1 year (80%). On average, participants reported having been asked to participate in 4.7 ( $SD = 4.0$ ) surveys (excluding the present one) over the previous 6 months.

### PROCEDURE

As part of a financial institution's effort to assess internal customer satisfaction, a customer satisfaction measure and the attitudes toward surveys measure were sent by mail to internal customers. To ensure anonymity, surveys were returned directly to the data entry vendor in postage-paid envelopes.

### MEASURES

*Customer satisfaction survey.* The customer satisfaction survey contained 78 close-ended items (excluding the attitudes toward surveys measure). Twenty-five

items constituted a customer satisfaction measure (coefficient alpha = .92). These items (e.g., “The information I receive from X is accurate”) were answered on a 5-point Likert-type scale from *strongly disagree* to *strongly agree*. An overall customer satisfaction measure (e.g., “I am satisfied with X’s service”) containing four items (coefficient alpha = .90) was also completed on a 5-point Likert-type scale from *strongly disagree* to *strongly agree*. Twenty-five additional questions assessed the importance of various service attributes to the customer (coefficient alpha = .93). These questions were answered on a 5-point Likert-type scale from *very unimportant* to *very important*. Eleven questions asked customers to provide letter grades (A, B, C, D, F) to a variety of customer service units (coefficient alpha = .83). Similarly, customers indicated the amount of contact (direct and indirect) they had with each of the 11 units (coefficient alpha = .58). Contact was assessed on a 3-point Likert-type scale from *frequent contact* to *never had any contact at all*. Finally, two demographic questions assessed the customer’s work location (i.e., branch) and his or her position in the organization. In addition to these close-ended questions, three open-ended questions were included at the end of the survey (e.g., “What could X do to provide better service to you?”).

*Attitudes toward surveys.* The two three-item subscales created and assessed in the pilot study were used to measure attitudes toward surveys. Factor analyses confirmed the expected two-factor solution. All factor loadings were greater than .65, with no survey enjoyment item cross loading on the survey value factor and no survey value item cross loading on the survey enjoyment factor. The coefficient alphas for survey value and survey enjoyment for this sample were .73 and .83, respectively.

Research participants completed the attitudes toward surveys measure after completing all other measures. Although it is a concern that responses to the attitudes toward surveys measure would be confounded with customers’ awareness of how they just completed a survey, we chose to assess attitudes toward surveys after the customer satisfaction portion of the survey for several reasons. First and foremost, we believed that having the attitudes toward surveys measure first in the survey packet would “prime” survey respondents to how they complete the survey and/or create some type of demand characteristic. Second, we felt that the face validity of the customer satisfaction packet would be compromised if the attitudes toward surveys measure was presented first to respondents. Finally, it is important to recognize that (a) the survey behaviors studied were subtle in nature and generally undetectable to the respondent and (b) attitudes were assessed with respect to surveys in general, not the particular survey the respondent had just completed.

## RESPONDENT BEHAVIORS

*Item missing value rate.* Leaving an answerable question blank (not even offering a “don’t know” or “not applicable” response) is referred to as a missing value. The number of missing values for each respondent across the 78 close-ended items was counted. The same process was done across the three open-ended questions.

*Following directions.* Two types of respondents were identified. The first type of respondent followed directions and provided only one response to each survey question. The second type of respondent circled more than one answer for a question asking

for only one response. Because only six individuals could be identified as not following directions, the relationship between attitudes toward surveys and multiple responses could not be examined.

*Number of days to return.* The number of days it took the respondent to return the survey was noted. All surveys were sent on the same day to customers, and all customers' mailing addresses were within 60 miles of the return address.

## Results

Respondents' attitudes toward survey value ( $M = 3.68$ ,  $SD = 0.58$ ) and survey enjoyment ( $M = 2.36$ ,  $SD = 0.79$ ) were both unrelated ( $p > .05$ ) to the customer satisfaction measure, the overall satisfaction measure, the importance ratings, the work unit grades, and the frequency of contact ratings (see Table 3). The next set of analyses examines whether survey value or survey enjoyment was related to the manner in which surveys were completed.

### RESPONDENT BEHAVIORS

*Close-ended item missing value rate.* Two individuals who left large sections of the survey incomplete were dropped from these analyses (i.e., outliers). On average, individuals left 0.64 ( $SD = 1.12$ ) questions blank, with 33% of the sample leaving at least one question blank. Missing values were negatively related to survey value ( $r = -.35$ ,  $p < .05$ ) such that individuals with more positive attitudes toward the value of surveys had fewer missing values. Survey enjoyment was not related to the number of missing values ( $r = -.26$ ) using the conventional decision rule of  $p < .05$ . However, given our small sample size, we would be remiss if we did not mention that survey enjoyment was "marginally" related to the number of missing values ( $p < .10$ ). No other topic assessed on the survey was related to the number of missing values (see Table 3).

*Open-ended item missing value rate.* Individuals in the customer sample could complete up to three open-ended questions (34% completed none of the questions, 10% completed one question, 35% completed two questions, and 22% completed all three questions). The number of missing responses to these open-ended questions was negatively correlated with survey value ( $r = -.30$ ,  $p < .05$ ) and survey enjoyment ( $r = -.31$ ,  $p < .05$ ) such that individuals possessing more positive attitudes toward survey value or survey enjoyment had fewer missing responses to the open-ended questions. No other topic assessed on the survey was related to response to open-ended questions (see Table 3).

*Number of days to return.* On average, participants returned their surveys in 8.67 business days ( $SD = 2.58$ ). The number of days to return the survey was negatively correlated ( $r = -.31$ ,  $p < .05$ ) with survey enjoyment. Survey value ( $r = -.12$ ) and other topics assessed on the survey were unrelated to timeliness of response (see Table 3).

### Summary of Sample 1 Results

Although neither of the attitudes toward surveys facets was related to individuals' standing on customer satisfaction, they were related to some indexes of "how" the sur-

*Table 3*  
Intercorrelations Between Measures Contained  
in the Internal Customer Satisfaction Survey

<i>Scale</i>	<i>Mean</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>
1. Survey value	3.68	0.58									
2. Survey enjoyment	2.36	0.79	.51**								
3. Customer satisfaction	3.31	0.57	.18	.09							
4. Importance	4.37	0.40	.05	.10	.24						
5. Overall customer satisfaction	3.24	0.77	.06	.00	.77**	.13					
6. Grades	2.33	0.56	-.10	.05	-.57**	-.17	-.49**				
7. Contact	1.06	0.35	-.16	.04	.11	-.12	.14	.08			
8. Open-ended missing rate	1.57	1.16	-.30**	-.31**	-.13	-.25	-.11	-.22			
9. Close-ended missing rate	0.64	1.12	-.35**	-.26	-.05	-.05	-.04	-.13	-.09		
10. Number of days to return	8.67	2.58	-.12	-.31**	.12	-.10	.09	.01	-.06	.30**	-.03

\*\* $p < .05$ .

vey was completed. Survey value was related to open-ended response and close-ended item response. Survey enjoyment, on the other hand, was related to open-ended item response, timeliness of response to the survey request, and, to a lesser extent, close-ended item response. Given the small sample size (low power), multiple regression analyses and moderated regression analyses (e.g., interaction of survey enjoyment and survey value) were not conducted.

## Sample 2: Student Sample

Data from a second sample were used to further examine the relationships between attitudes toward surveys and respondent behaviors. As in sample 1, item response rates and an overt following-directions index were examined. Respondents in sample 2 were also assessed on four additional survey behaviors, including an additional following-directions index, a response distortion index, and two indexes of participants' willingness to participate in additional survey research.

### Respondent Behavior

*Following directions.* As discussed earlier, individuals who do not respond to a survey in a manner consistent with the directions provide potentially meaningless or misleading data. Following directions can be overt (e.g., circling only one response when instructed to do so). Following directions can also have more subtle manifestations, such as when a respondent provides a tangential and vague response to an open-ended question asking for a specific type of response (e.g., a list of key factors, specific examples, and a detailed explanation).

*Response distortion.* Response distortion refers to the deliberate altering of answers to create a positive impression (Zerbe & Paulhus, 1987). Although personality and selection researchers have been most interested in response distortion (Rosse,

Stecher, Miller, & Levin, 1998), it is also a relevant construct in survey research. Namely, response distortion can affect interrelationships between measures and/or the magnitude of reported findings (e.g., inflated or deflated means).

*Willingness to participate in additional surveys.* As researchers, we depend on individuals to respond to surveys that are administered. Nonresponse affects us directly in the form of having an insufficient amount of data for analysis. More important, a concern arises with regard to whether nonresponders are systematically different from responders (i.e., nonresponse bias) (Rogelberg & Luong, 1998). Attitudes toward surveys may provide information about willingness to complete surveys, which in turn should be good a predictor of actual survey return behavior (cf. Ajzen & Fishbein, 1980).

## Method

### PARTICIPANTS

One hundred fifty-four undergraduate students (71% female) from six psychology classes at a medium-size midwestern state university completed a survey in class for extra credit. The majority of the students (84%) had completed at least four semesters of college at the time they completed this survey, and 75% of the sample reported that they had been part of a project that involved the creation or use of a survey.

### PROCEDURE

Permission was granted from course instructors to administer the survey to students in their classes (no meaningful differences were found between classes). Participants were told that the survey packet was aimed at addressing and understanding attitudes and opinions toward themselves, the university, and research; that participation was voluntary; and that their responses were anonymous. Surveys were distributed to students who agreed to participate. No one declined participation; thus, range restriction was not a concern. Participants were told to take as much time as they needed to complete the survey.

### MEASURES

*Base survey content.* In an attempt to prevent respondents from assuming the purpose of the study, the survey administered in this sample was created to be fairly diverse in content. To that end, the survey contained a state affect measure, a satisfaction type measure, a personality type measure, and the attitudes toward surveys subscales. Participants completed the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988). This scale measures positive and negative affect as two distinct constructs by asking respondents to indicate the degree to which 20 adjectives (10 for positive affect, 10 for negative affect) reflect their feelings and emotions "at the current moment." Participants responded by rating each adjective (e.g., excited, distressed) on a 5-point Likert-type scale from *not at all* to *extremely*. Coefficient alphas for positive and negative affect in the current study were .84 and .86, respectively. Four items were used to assess students' satisfaction with the university in general, course offerings, student activities, and social climate. Responses were made on a 5-point

Likert-type scale from *very dissatisfied* to *very satisfied* (coefficient alpha = .69). Participants responded to the Balanced Inventory of Desirable Responding (BIDR) (Paulhus, 1984, 1988). Items (e.g., “I sometimes drive faster than the speed limit”) were answered on a 7-point Likert-type scale from *not at all true* to *very true*. As recommended by Paulhus (1988), a continuous scoring method was used in which items were averaged after negatively keyed items were reverse scored. Finally, the items assessing survey value and survey enjoyment were administered. Factor analyses of the six attitudes toward surveys items revealed the expected two-factor solution. All factor loadings were greater than .70, with no survey enjoyment item cross loading on the survey value factor and no survey value item cross loading on the survey enjoyment factor. The coefficient alphas for survey value and survey enjoyment were .74 and .87, respectively. The attitudes toward surveys measures appeared at the end of the survey.

*Following directions.* Two indexes of following directions were used. First, toward the end of the student survey, an open-ended question instructed respondents to explain an answer they provided to a close-ended attitude question. Specifically, the open-ended question read: “Please explain your answer to the above question (i.e., ‘Why do you feel the way you do?’).” To determine whether individuals followed directions and explained their answer, four raters, each with a master’s degree in psychology, who were blind to the research question, independently content coded each response on two criteria: (a) “To what extent did the open-ended response explain the participant’s rating?” (the actual rating along with the explanation was provided to the raters) and (b) “To what extent did the respondent follow the directions for the question?” The criteria were evaluated on a 5-point Likert-type scale from *not at all* to *extremely*. Scores were collapsed across the two items and four raters to represent a single index of following directions (coefficient alpha = .78).

With regard to the second following-directions index, only one individual was identified as not following the “write one and only one response” direction. Due to this low base rate, we were not able to study this index further.

*Response distortion.* As mentioned earlier, participants responded to the BIDR. This measure included two factors. The first factor, assessed by 20 items, represents a form of unconscious ego enhancement manifested by overly positive beliefs about the self-concept. This factor was not of interest in this study. The second factor, assessed by 20 items, represents deliberate tailoring of answers to create a positive impression. This factor has been called response distortion (Rosse et al., 1998). The average score on this index was calculated to represent response distortion (coefficient alpha = .76), with high scores indicating greater response distortion.

*Item response rates.* With regard to close-ended item response rate, on average, 0.07 (*SD* 0.40) missing values were found for “answerable” items. It should be noted that the BIDR was not considered in calculating item response rates due to the fact that the answer scale does not provide respondents the option of not answering a certain question (e.g., “not applicable”), even though a number of questions were sensitive in nature (e.g., “I have sometimes doubted my ability as a lover”) and possibly irrelevant (e.g., “I always declare everything at customs”). Finally, only 7% of the sample did not respond to the open-ended question. Consequently, item response rates were considered but not used due to low base rates. The low base rates of these survey behaviors may be related to the fact that the survey was completed during class time.

*Table 4*  
Intercorrelations Between Continuous  
Measures Contained in the Student Survey

Scale	Mean	SD	1	2	3	4	5	6	7	8	9
1. Survey value	4.08	0.52									
2. Survey enjoyment	2.81	0.73	.23**								
3. Positive affect	2.74	0.71	.16**	.12							
4. Negative affect	1.64	0.63	.06	-.05	-.01						
5. Overall satisfaction	3.50	0.68	.13	.10	.25**	-.20**					
6. Willingness–phone survey	2.88	1.18	.18**	.36**	.03	.10	.08				
7. Willingness–interview survey	2.42	1.09	.19**	.28**	.03	.00	.12	.54**			
8. Willingness–mail survey	2.55	1.18	.21**	.36**	.07	.09	.00	.33**	.33**		
9. Follow directions	3.46	0.77	.25**	.33**	.09	-.03	.15	.24**	.18**	.15	
10. Response distortion	4.30	0.62	.02	.02	.18**	-.27**	.24**	-.09	-.09	-.07	-.08

\*\* $p < .05$ .

*Willingness to participate in additional research.* Two indexes of a respondent's willingness to participate in additional research were used. The first index of willingness was behavioral in nature. At the end of the student survey, respondents were provided with the opportunity to list their name and phone number if they would like to participate in an additional survey research project (although no extra credit was offered).

The second index of willingness to participate in additional research was constructed by asking individuals to respond to three hypothetical scenarios: (a) receiving a phone call at 7 p.m. on a weeknight and being asked to participate in a 15-minute phone survey; (b) when passing the student union, being approached and asked to complete a written questionnaire that will take about 15 minutes to complete; and (c) receiving a four-page survey in the mail. Following each scenario, subjects indicated their willingness by responding on a 5-point Likert-type scale from *not at all willing* to *very willing* to participate in this survey effort.

## Results

Table 4 displays the intercorrelations between survey value ( $M = 4.08$ ,  $SD = 0.52$ ), survey enjoyment ( $M = 2.81$ ,  $SD = 0.73$ ), and other continuous variables assessed on the student survey. With the exception of a small positive relationship between survey value and positive affect ( $r = .16$ ,  $p < .05$ ), survey value and survey enjoyment demonstrated discriminant validity.

The next set of analyses examines whether attitudes toward surveys were related to the index of following directions, the index of response distortion, and two indexes of respondents' willingness to participate in additional research.

## RESPONDENT BEHAVIOR

*Following directions.* Based on the ratings provided by the four independent raters, participants generally followed directions when responding to the open-ended ques-



tion ( $M = 3.47$ ,  $SD = 0.77$ ) (a score of 5 refers to a perfect rating for following directions). The extent to which respondents followed directions was positively related to both survey value ( $r = .25$ ,  $p < .05$ ) and survey enjoyment ( $r = .33$ ,  $p < .05$ ). Following directions was not correlated with any of the other content-oriented variables assessed on the survey (see Table 4).

*Response distortion.* Response distortion ( $M = 4.30$ ,  $SD = 0.63$ ) was unrelated ( $p > .05$ ) to both survey value and survey enjoyment. It was related to positive affect, negative affect, and satisfaction with the university (see Table 4).

*Willingness to participate in additional research.* On average, participants were less than “somewhat willing” to respond to a telephone survey ( $M = 2.88$ ,  $SD = 1.18$ ), a passerby in-person survey ( $M = 2.42$ ,  $SD = 1.09$ ), and a mail survey ( $M = 2.55$ ,  $SD = 1.18$ ) (a score of 5 indicates a very strong willingness to respond to the survey described in the scenario). Survey value and survey enjoyment were both positively related ( $p < .05$ ) to willingness to complete telephone, in-person, and mail surveys (see Table 4). No other content-oriented variables were related ( $p > .05$ ) to willingness to complete surveys (see Table 4).

With regard to the other index of willingness to participate in additional research, respondents who voluntarily provided the researcher with their name and phone number to participate in additional survey research were identified (21% of the sample). Individuals who provided their names had more positive attitudes toward filling out surveys ( $M = 3.05$ ,  $SD = 0.74$ ) compared with those who did not provide their names ( $M = 2.75$ ,  $SD = 0.66$ ),  $t(150) = -2.05$ ,  $p < .05$ ,  $\eta^2 = .04$ . No differences in survey value were found for the two groups,  $t(150) = -0.83$ ,  $p < .05$ . No other content-oriented variables were related to this volunteering behavior.

## SIMULTANEOUS EXAMINATION OF SURVEY VALUE AND SURVEY ENJOYMENT

Given sufficient levels of power, a series of multiple regression analyses were conducted whereby each respondent behavior was regressed on both survey value and survey enjoyment concurrently. Table 5 displays the findings from these multiple regression analyses.

## ADDITIONAL SUPPLEMENTARY ANALYSES

We also examined possible interaction effects. For each respondent behavior, we examined (a) whether the interaction of survey value and survey enjoyment explained additional variance in respondent behavior beyond the variance explained by the two main effects; (b) whether affect interacted with survey value and survey enjoyment, respectively, to explain additional variance in respondent behavior beyond the variance explained by the two main effects; (c) whether either factor of the BIDR interacted with survey value and survey enjoyment, respectively, to explain additional variance in respondent behavior beyond the variance explained by the two main effects; and (d) whether student satisfaction interacted with survey value and survey enjoyment, respectively, to explain additional variance in respondent behavior beyond the variance explained by the two main effects. No significant interactions were found.

Table 5  
Multiple Regression Analyses Involving Both Survey Value and Survey Enjoyment

Model	Dependent Measure	Survey Value Beta	Survey Enjoyment Beta	F for Model	R <sup>2</sup> for Model
One	Follow directions	.19**	.29**	11.41**	.14
Two	Response distortion	.02	.02	0.09	.00
Three	Behavioral response intention	.03	.16*	2.16	.03
Four	Willingness–phone survey	.11	.34**	12.38**	.14
Five	Willingness–interview survey	.14*	.25**	8.13**	.10
Six	Willingness–mail survey	.13*	.33**	12.97	.15

Note. The behavioral response intention was scored dichotomously. Respondents who voluntarily provided the researcher with their name and phone number were coded as 1, and those who did not were coded as 0.

\* $p \leq .10$ . \*\* $p < .05$ .

### Summary of Sample 2 Results

With regard to respondent behavior, both survey value and survey enjoyment were related to an index of following directions and the general willingness to participate in future research. Only survey enjoyment was related to volunteering to participate in future research efforts. Survey value and survey enjoyment were unrelated to response distortion. It is worth noting that response distortion, measured here with the second factor of the BIDR, may function differently than expected. Namely, the response distortion index used here may have less to do with motivation to complete a survey than it does with an overarching motivation to misrepresent oneself to others. Consequently, it may be the case that one's attitudes toward integrity, honesty, and responsibility (along with other trait measures) may be more appropriate predictors of this particular type of distortion than attitudes toward surveys.

### Psychometrics Based on Pilot Data, Sample 1 Data, and Sample 2 Data

A final set of psychometric analyses were conducted using the data collected across the three data samples ( $N = 326$ ). First, a confirmatory factor analysis was performed. The anticipated two-factor structure fit the data well (root mean square error of approximation = .02, normed fit index = .97,  $\chi^2[8] = 22.85$ ,  $p > .05$ , comparative fit index = .98; there were no significant Lagrange multipliers). Furthermore, all factor loadings (see Table 6) were statistically significant ( $p < .05$ ). A one-factor confirmatory model was also tested but did not fit the data (root mean square error of approximation = .09, normed fit index = .69,  $\chi^2[9] = 230.05$ ,  $p < .05$ , comparative fit index = .70).

Next, using the combined data set, item response theory analyses with the two-parameter logistic model were conducted to further examine the psychometric quality of the attitudes toward surveys measure. Each subscale was examined independently. Each of the three items in survey enjoyment was highly discriminating ("a" parameter estimates ranged from a low of 3.36 to a high of 5.46). With regard to the scale score (marginal reliability = .90), the greatest measurement precision occurred between thetas of  $-1.5$  and  $1.5$ . In reference to survey value, each of the three items was highly discriminating ("a" parameter estimates ranged from a low of 2.26 to a high of 3.85).

*Table 6*  
Measurement Model and Standardized Factor Loadings  
From Confirmatory Factor Analysis Using All Data

<i>Attitudes Toward Surveys Items</i>	<i>Survey Enjoyment (<math>\alpha = .85</math>)</i>	<i>Survey Value (<math>\alpha = .76</math>)</i>
1. I do not like filling out surveys	.70	
2. Surveys are fun to fill out	.84	
3. I enjoy filling out surveys	.89	
4. A lot can be learned from information gathered from surveys		.77
5. Nothing good comes from completing a survey		.62
6. Surveys are useful ways to gather information		.77

*Note.* All loadings were statistically significant ( $p < .05$ ). Questions 1 and 5 were reverse scored prior to confirmatory factor analysis. No item cross loaded.

With regard to the scale score (marginal reliability = .79), the greatest measurement precision occurred between thetas of  $-2.0$  and  $-.50$  and between  $.50$  and  $1.5$ .

## General Discussion

Social scientists and practitioners often rely on surveys as a data collection tool. However, the usefulness of surveys in answering important research questions depends on participants' willingness to respond and provide high-quality data. In this study, we established a psychometrically sound measure of attitudes toward surveys and demonstrated the importance of attitudes toward surveys in understanding respondent behavior. Attitudes toward surveys were generally unrelated to the eclectic content of the host surveys, yet, across two substantively different data samples, such attitudes were related to the manner in which surveys were completed.

### Respondent Behavior

With the exception of response distortion, survey enjoyment was generally related to all respondent behaviors studied. Survey value, on the other hand, was related to item response rates (close ended and open ended) and following directions. It was also related to willingness to participate in additional surveys, but to a lesser extent than survey enjoyment. Unlike survey enjoyment, it was not related to timeliness of response and volunteering to participate in additional survey work (i.e., provide name and phone number). A post hoc examination of the types of behaviors studied may provide some information about our observed pattern of results.

Although a taxonomy of respondent behaviors to our knowledge does not exist, we believe behaviors can be categorized as either participating behaviors or quality/quantity behaviors. Participating behaviors are those related to returning a survey. In the present study, participating behaviors included timeliness of response to the survey request, stated willingness to participate in additional survey efforts, and providing the researcher with a name and phone number to participate in additional survey research. Quality/quantity behaviors, on the other hand, are associated with providing complete, accurate, and appropriate information. In the case of this study, quality/quantity behaviors included item response rates and following directions. Examination of the

data across the two samples reveals that survey enjoyment was related to both the quality/quantity behaviors and participating behaviors studied. Survey value was also related to the quality/quantity behaviors studied, but was generally unrelated to the participating behaviors studied.

To speculate on why survey value was generally unrelated to participating behaviors, we refer back to the definition of survey value. Survey value addresses the usefulness of the data collected and the perceived value of survey efforts. Survey value does not address whether individuals like or want to fill out surveys. Therefore, survey value may result in intentions or willingness to respond in effortful ways when actually engaged in completing a survey, but does not necessarily lead to a greater desire to seek out survey completion opportunities. For example, it is potentially dissonant for an individual who believes that “good things come from survey participation” to respond in a haphazard and careless manner, thus inhibiting “good things from coming from survey participation.” However, it is not dissonant for this same individual to actually dislike the act of completing surveys. Survey enjoyment, on the other hand, refers to individual feelings about completing surveys (e.g., “I like filling out surveys”). Therefore, survey enjoyment may result in intentions or willingness to participate in survey efforts in a timely manner (i.e., if you like doing surveys, you will mostly likely look for opportunities to complete surveys). At the same time, we posit that because individuals high in survey enjoyment like filling out surveys, they may become more vested (e.g., engage in greater cognitive effort) in the survey completion task. As a result, and consistent with our findings, survey enjoyment was found to be positively related to response quality.

### Effect Sizes

The effect sizes in the current study, when each subscale was examined independently, were generally small ( $R^2 = .05$ ). When we had sufficient power to conduct multiple regression analyses, the two subscales together accounted for a fairly substantial amount of respondent behavior variation ( $R^2 = .14$  for the following-directions variable). Given that survey response behavior, like any behavior, is influenced by many factors, any single factor is unlikely to account for a large proportion of variance. For instance, the cognitive demands placed on the respondent may play a large role in survey behavior (Krosnick, 1991). Nonetheless, even small relationships between attitudes toward surveys and survey behaviors are of considerable practical importance, since, as explained below, any loss in data quality may lead researchers to misinterpret study results. Finally, it is important to note that no other variable assessed in any of the two data sets was related to respondent behavior (with the exception of response distortion).

### Implications

Given the demonstrated relationship between attitudes toward surveys and respondent behavior, it follows that data sets containing some or many individuals with poor attitudes toward surveys may present a number of problems for a researcher. For example, observed relationships may be more difficult to identify when individuals do not follow directions, respond inconsistently, or do not complete items. Underestimating or not detecting relationships increases Type II errors and may prevent one from drawing the appropriate conclusions from the data. As a result, survey researchers may

want to consider assessing attitudes toward surveys along with the particular variables of interest. Knowing that individuals in a sample possessed poor attitudes toward surveys could provide information about null findings and “dirty” data (e.g., a number of missing values). Besides this descriptive purpose, survey researchers can use the attitudes toward surveys measure for a number of additional, more active purposes.

Depending on the types of variables studied as well as statistical power, one or both of the attitudes toward surveys subscales can be used as a covariate when examining bivariate or multivariate relations between content-oriented constructs. Our data suggest that controlling for attitudes toward surveys may “clean up” a researcher’s obtained data. Therefore, depending on the theoretical connection between the variables a researcher is interested in, observed relations may increase or decrease when attitudes toward surveys are controlled for. These corrected correlations may approximate “truth” to a greater extent than uncorrected correlations.

Survey researchers may also want to consider using the attitudes toward surveys subscales to aid in scale development work. Namely, when choosing items for some psychological construct, everything being psychometrically equal, select those that are not highly correlated with responses on survey value and survey enjoyment (this implication assumes that the psychological construct in question does not have a theoretical connection to attitudes toward surveys).

Finally, given that attitudes toward surveys are related to respondent behavior, survey researchers should act and advise others to act in a manner that may promote survey enjoyment and survey value. Given the relatively independent nature of survey value and survey enjoyment, some antecedents may be particular to survey value and some antecedents may be particular to survey enjoyment. At the same time, some antecedents may be common to both survey value and survey enjoyment. Although research is needed to identify the exact drivers of survey value and survey enjoyment, we suggest the following practical issues that may impact both survey value and survey enjoyment.

First, we speculate that one overarching factor that affects survey value and survey enjoyment concerns oversurveying. Goyder (1986) found that attitudes toward surveys were negatively related to the number of survey requests. Therefore, the number of surveys employees are asked to complete should be critically managed. Practitioners should be careful to prevent employees from being surveyed too much, since the quality of their data may depend on it. The following questions suggested by Edwards, Thomas, Rosenfeld, and Booth-Kewley (1997) may be useful when deciding whether to survey employees: Does an actual and important need exist? Is a survey the best way to address the need? Are the stakeholders (i.e., those requesting the research) committed to acting on the results of the survey efforts?

After the survey is completed, it may be critical to “close the loop” with respondents who complete surveys. One way in which this can be accomplished is to provide general feedback to respondents about overall trends in the data for the survey they recently completed. Alternatively, closing the loop can entail communication with survey respondents concerning how the survey data were used, considered, or not used. This type of communication with the survey respondent may serve to reinforce the act of survey participation and, at the same time, prevent cynicism from “seeping” into feelings of survey value and survey enjoyment.

Another action that may positively affect survey value and survey enjoyment is to use a well-designed survey and to ensure that others use well-designed surveys for

their research purposes. Namely, to promote positive survey value and survey enjoyment, we suggest that surveys possess clear instructions and well-written items, be not overly redundant, be easy to understand, have a clear purpose, have an attractive layout, and address topics of interest to employees or at least topics that employees can see as being of critical interest to the organization. Within an organization, to promote survey quality across survey researchers, it may be useful to create a survey registry committee that oversees the quality and quantity of surveys administered to employees.

### Limitations and Future Research

As in any research project, limitations exist that may serve to temper the findings. First, according to the theory of reasoned action (Ajzen & Fishbein, 1980), specific and narrow attitudes are better predictors of behavioral intentions than general attitudes. Therefore, it may be the case that examining attitudes toward the specific survey respondents are asked to complete would increase the predictive power of attitudes toward surveys in explaining respondent behavior. Second, although no theoretical rationale or empirical evidence exists to justify the exclusion of certain topics (e.g., attitudes about violence, testing, and sexual practices) as being inappropriate to assess via survey, one may question whether attitudes toward surveys should themselves be assessed using a survey. Consequently, additional approaches to assessing attitudes toward surveys should be pursued. For instance, if similar attitude-behavior relationships emerge using an interview methodology, we can feel especially confident in our use of the more practical and economical surveys for assessing attitudes toward surveys.

An additional limitation concerns the range of respondent behaviors studied. Due to practicality concerns and the exploratory nature of this research, not all possible respondent behaviors were studied. Future research might benefit from not only cataloging possible respondent behaviors but also studying additional behaviors. For example, research should examine (a) *individual* test-retest reliability and (b) actual future survey participation. Choosing survey behaviors to study, however, is not a simple task, since base rates for the behaviors may be low (which occurred unexpectedly a few times in this study).

Finally, as discussed earlier, a variety of variables are likely to affect respondent motivation (e.g., need for cognition). Future research should examine the relations between additional variables in conjunction with survey value and survey enjoyment to gain a greater theoretical understanding of respondent behavior.

### Conclusion

The value of surveys in addressing organizational research needs is predicated on the notion that respondents will provide high-quality data. Although other variables may also be important determinants of response quality, the present construct definition and exploratory study examined and found support, across two samples of data, for the usefulness of both survey value and survey enjoyment in understanding respondent behavior. Even though these attitudes toward surveys were related to respondent behavior, our data do not necessarily imply that researchers should avoid sampling individuals with poor attitudes about surveys. Conversely, we would argue that

researchers should (a) periodically assess respondents' attitudes toward surveys, (b) incorporate attitudes toward surveys in their theoretical models of respondent behavior, and (c) consider attitudes toward surveys when interpreting survey data. At the very least, we must be sensitive to the influence our research choices may have on respondent survey attitudes and, thus, respondent behaviors. The quality and quantity of our data, and the accuracy of our interpretations of such data, may depend on it.

## References

- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, *84*, 888-918.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice Hall.
- Armstrong, J. S., & Lusk, E. J. (1987). Return postage in mail surveys: A meta-analysis. *Public Opinion Quarterly*, *51*, 233-248.
- Arvey, R. D., Strickland, W., Drauden, G., & Martin, C. (1990). Motivational components of test taking. *Personnel Psychology*, *43*, 695-716.
- Baruch, Y. (1999). Response rate in academic studies: A comparative analysis. *Human Relations*, *52*, 421-438.
- Edwards, J. E., Thomas, M. D., Rosenfeld, P., & Booth-Kewley, S. (1997). *How to conduct organizational surveys: A step-by step guide*. Thousand Oaks, CA: Sage.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior*. Reading, MA: Addison-Wesley.
- Fox, R. J., Crask, M. R., & Kim, J. (1988). Mail survey response rate: A meta-analysis of selected techniques for inducing response. *Public Opinion Quarterly*, *52*, 467-491.
- Gallup, G. (1988). Employee research: From nice to know to need to know. *Personnel Journal*, *67*(8), 42-43.
- Goyder, J. (1986). Surveys on surveys: Limitations and potentials. *Public Opinion Quarterly*, *50*, 27-41.
- Heberlein, T. A., & Baumgartner, R. (1978). Factors affecting response rates to mailed questionnaires: A quantitative analysis of the published literature. *American Sociological Review*, *43*, 447-462.
- Heider, F. (1946). Attitudes and cognitive organization. *Journal of Psychology*, *21*, 107-112.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.
- Helgeson, J. G., & Ursic, M. L. (1994). The role of affective and cognitive decision-making processes during questionnaire completion. *Psychology and Marketing*, *11*, 493-510.
- Kraut, A. I. (1996). An overview of organizational surveys. In A. I. Kraut (Ed.), *Organizational surveys: Tools for assessment and change* (pp. 1-14). San Francisco: Jossey-Bass.
- Krosnick, J. A. (1991). Response strategies for coping with the cognitive demands of attitude measures in surveys. *Applied Cognitive Psychology*, *5*, 213-236.
- Paulhus, D. L. (1984). Two-component models of socially desirable responding. *Journal of Personality and Social Psychology*, *46*, 598-609.
- Paulhus, D. L. (1988). *Assessing self-deception and impression management in self-reports: The Balanced Inventory of Desirable Responding—Reference manual*. Department of Psychology, University of British Columbia, Vancouver.
- Petty, R. E., & Cacioppo, J. T. (1981). *Attitudes and persuasion: Classic and contemporary approaches*. Dubuque, IA: William C. Brown.
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, *12*, 531-544.

- Rogelberg, S. G., & Luong, A. (1998). Nonresponse to mailed surveys: A review and guide. *Current Directions in Psychological Science, 7*(2), 60-65.
- Rogelberg, S. G., Luong, A., Sederburg, M., & Cristol, D. (2000). Employee attitudes surveys: Examining the attitudes of noncompliant employees. *Journal of Applied Psychology, 85*, 284-293.
- Rosse, J. G., & Noel, T. W. (1996). Leaving the organization. In K. R. Murphy (Ed.), *Individual differences and behavior in organizations* (pp. 451-504). San Francisco: Jossey-Bass.
- Rosse, J. G., Stecher, M. P., Miller, J. L., & Levin, R. A. (1998). The impact of response distortion on pre-employment personality testing and hiring decisions. *Journal of Applied Psychology, 83*, 634-644.
- Schleifer, S. (1986). Trends in attitudes toward and participation in survey research. *Public Opinion Quarterly, 50*, 17-26.
- Schmit, M. J., & Ryan, A. M. (1992). Test-taking dispositions: A missing link? *Journal of Applied Psychology, 77*(5), 629-637.
- Schriesheim, C. A., & Eisenbach, R. J. (1995). An exploratory and confirmatory factor-analytic investigation of item wording effects on the obtained factor structures of survey questionnaire measures. *Journal of Management, 21*, 1177-1193.
- Sjoberg, G. (1955). A questionnaire on questionnaires. *Public Opinion Quarterly, 18*, 423-427.
- Tourangeau, R. (1987). Attitude measurement: A cognitive perspective. In H. Hippler, N. Schwarz, & S. Sudman (Eds.), *Social information processing and survey methodology* (pp. 149-162). New York: Springer-Verlag.
- Ursic, M. L., & Helgeson, J. G. (1989). Variability in survey questionnaire completion strategies: A protocol analysis. *Journal of the Market Research Society, 31*, 225-240.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063-1070.
- Yammarino, F. J., Skinner, S. J., & Childers, T. L. (1991). Understanding mail survey response behavior: A meta-analysis. *Public Opinion Quarterly, 55*, 613-639.
- Yu, J., & Cooper, H. (1983). A quantitative review of research design effects on response rates to questionnaires. *Journal of Marketing Research, 20*, 36-44.
- Zerbe, W. J., & Paulhus, D. L. (1987). Socially desirable responding in organizational behavior research: A reconception. *Academy of Management Review, 12*, 250-264.

*Steven G. Rogelberg is an associate professor of industrial and organizational psychology and the director of the Institute of Psychological Research and Application at Bowling Green State University. He received a Ph.D. in industrial and organizational psychology from the University of Connecticut in 1994. His research interests include organizational research methods (e.g., data collection via the Internet, survey nonresponse, improving survey data quality) and methods and approaches to facilitate team effectiveness.*

*Gwenith G. Fisher is a Ph.D. candidate in industrial and organizational psychology at Bowling Green State University. Her current research focuses on quality of work life issues, including work/life balance, job stress, employee attitudes, and survey measurement.*

*Douglas C. Maynard is an assistant professor of psychology at the State University of New York at New Paltz. He received a Ph.D. in industrial and organizational psychology from Bowling Green State University in 1998. His research interests include antecedents and determinants of employee overqualification, applicant reactions to selection procedures, and youth employment issues.*

*Milton D. Hakel is the Ohio Board of Regents eminent scholar in industrial and organizational psychology at Bowling Green State University. He received a Ph.D. from the University of Minnesota in 1966. His current research focuses on learning and development.*

*Michael Horvath is a Ph.D. candidate in the industrial and organizational psychology program at Michigan State University. His research interests include organizational justice, workplace motivation, and organizational attitude surveying.*