Organizational survey response: previous findings and an integrative framework

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ORGANIZATIONAL SURVEY RESPONSE: PREVIOUS FINDINGS AND AN INTEGRATIVE FRAMEWORK

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Abstract: *This chapter discusses nonresponse to organizational surveys focusing on methodological and theoretical issues related to nonresponse. The first section provides an overview of methodologies for the study of nonresponse, including archival databases, the wave approach, the follow-up approach, and population profiling, as well as a discussion of methodological challenges in nonresponse research. The second section summarizes previous nonresponse research by examining demographics, attitudes, and organizational and survey characteristics as antecedents of nonresponse. The third section provides an integrated framework for the study of survey response. Building on previous research, we develop a model that posits several mechanisms that explain why nonresponse occurs. This model incorporates multiple levels of analysis and acknowledges the role of individual differences and situational characteristics on nonresponse behavior. In addition, we also discuss the future of nonresponse research by exploring the role of narrow personality traits, advances in technology, and organizational and national culture in survey nonresponse.*

A large percentage of social science research findings are based on survey research. For researchers in organizational behavior and for Industrial and Organizational (I/O) psychologists, surveys are the primary method of data collection. Considering the prevalence of survey research in the social sciences and particularly in I/O psychology, researchers and practitioners have continued to voice concerns about response rates (Baruch 1999; Roth & BeVier 1998): Of particular concern is the effect of nonresponse on the validity of survey-based research findings. For example, if an average of 30-50% (and in some instances more) of those initially contacted to respond to surveys fail to comply with the request for survey completion, are survey research findings really generalizable to the overall population or should we be talking, at best, about those who chose to participate in organizational surveys? Similarly, one may wonder what leads some individuals to respond to organizational surveys while others fail to comply with the request for survey completion.

Over the past decade, progress in nonresponse research has been substantial, but nonresponse research as a field still lacks an in-depth understanding of many of the processes and mechanisms that lead some individuals to complete and return surveys, while others fail to comply to do so. Similarly, methodologies used for the study of individuals who are usually not inclined to participate in surveys need to be further developed.

The objective of this chapter is to provide an overview of previous research on survey nonresponse in organizational surveys[1], with an emphasis on unit nonresponse in organizational and employee surveys. Based on previous research, we discuss methodological techniques used to study nonresponse, summarize nonresponse research findings, and provide a conceptual framework that may lead to further advances in what we know about survey response behavior and unit nonresponse. Although many of the findings discussed in this chapter are likely to translate to other social sciences, findings that specifically pertain to the relationship between employee and employer may not be as likely to transfer to disciplines other than organizational behavior and Industrial and Organizational psychology.

Nonresponse behavior can take various forms and range from incomplete item response to unit nonresponse where individuals never return their questionnaires (Groves, Dillman, Eltinge & Little 2002). Although generally treated as two separate phenomena, item and unit nonresponse are likely to have similar antecedents, and some researchers have indeed suggested that item nonresponse may constitute a 'milder form' of survey nonresponse. For instance, individuals with extremely low levels of trust in the survey-sponsoring entity may decide to not respond to the survey at all, whereas individuals who trust the organization somewhat may choose to not complete items that may be used to identify them (Spitzmueller, Borg, Sady, Barr & Spitzmueller 2006). Though we do recognize the similarities between item and unit nonresponse behavior, we focus our discussions in this chapter on unit nonresponse in organizational surveys.

In summarizing previous accomplishments of nonresponse research and identifying future directions, we first discuss methodologies for the study of survey nonresponse, and discuss challenges previous nonresponse research has encountered, as well as opportunities for further development of methodologies for the study of nonresponse. Second, we discuss previous research findings and theoretical models for the study of unit nonresponse

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1   Respondents and nonrespondents to organizational and employee surveys differ in their relationships with the sponsoring organization from individuals who complete public opinion research surveys, and marketing surveys. In particular, employment relationships are usually longer-term and more strongly based on reciprocity than relationships between public opinion or market research firms and their study participants.

in organizational surveys (e.g. Bosnjak, Tuten & Wittmann 2005; Rogelberg, Luong, Sederburg & Cristol 2000), and summarize what we know about the role of individuals' demographics, attitudes, personality, social exchange relationships, organizational experiences, and culture with survey response behavior. Based on our discussions of previous nonresponse research, we extend previously developed frameworks, and propose an integrated theoretical model for the study of employee survey response behavior, integrating variables that have previously received little attention in survey response research.

Methodologies for the study of survey nonresponse

Nonrespondents are elusive by nature – as they fail to participate in surveys we generally have relatively little information available about their characteristics, motivation, and their relationship with the sponsoring organization. As a result, nonresponse research has been plagued by methodological challenges pertaining to the assessment of characteristics of nonrespondents (Beatty & Herrmann 2002; Rogelberg et al. 2003; Rogelberg, Luong, Sederburg & Cristol 2000). Still, numerous methodological approaches have been suggested, and their shortcomings and strengths have been discussed (Rogelberg et al. 2003). Rogelberg et al. have previously briefly summarized methodologies for studying nonrespondents (Rogelberg et al. 2003). In this section, we supplement information contained in their review, and further discuss strengths and challenges associated with the different methodologies.

Archival Databases. Early nonresponse research used archival databases that predominantly contained information about demographic characteristics (Gannon, Northern & Carroll 1971). Using this archival approach, surveys were sent out to individuals whose information was stored in the database. Generally, the survey contained a label or other piece of identifying information that allowed researchers to compare respondents and nonrespondents on variables contained in the archival dataset after the questionnaires were returned. Unfortunately, the archival approach was limited in that respondents and nonrespondents could only be compared on characteristics contained in the original database. Thus, comprehensive comparisons of respondents and nonrespondents have rarely been possible in nonresponse studies utilizing archival databases.

Today, organizational databases are frequently built based on systems such as those by SAP or PeopleSoft and contain a wealth of information. For instance, many organizations store records about job performance, absenteeism, promotions, as well as information collected during personnel selection procedures in their HR databases (Stanton & Weiss 2003; Stone, Stone-Romero & Lukaszewski 2006). Thus, while analyses of archival data used to be limited to demographic variables, today's databases could allow for more substantive

analyses of differences between respondents and nonrespondents. For example, future research could investigate potential differences in employee performance, promotion, and attrition between respondents and nonrespondents. However, the use of organizational databases requires linkage of database information to organizational survey data, which prevents surveys from being administered anonymously. As a result, the use of archival databases for nonresponse research is likely to be challenged by union representatives and employees as it eliminates the anonymity of survey responses.

For nonresponse researchers, application of the archival approach in using today's HR database systems may be a viable option if appropriate precautions are taken to reduce employee concerns about the lack of anonymity. For example, if researchers can ensure that linkage information used to combine database information with information about response behavior is only available to an independent research team, but not to organizational representatives, and if employees understand that their employer will not have access to information linking their responses to archival or other identifying information, researchers may be able to effectively use the archival approach without compromising employee concerns about confidentiality of employee survey results. These recommendations are in line with Stanton and Weiss's (2003) observation that organizational data can be used if trust and adequate justification of policies pertaining to information use are taken into account.

Wave approach. Wave approaches use failure to meet a survey deadline as a proxy for nonresponse. This approach classifies responses received before an initially defined deadline as responses, and those received after the deadline as nonresponse (which they technically are or would be if the deadline was strictly enforced and if late responses were excluded from analyses). Using wave approach methods, comparisons between early and late respondents are then conducted. Critiques of the wave approach have noted that in fact late respondents are still respondents, who may be less likely to differ from those who never respond than from those who did respond in a timely fashion. As a result, research using wave approaches has been very limited in scope, and differences between early and late respondents were generally found not to be substantial.

Follow up approach. Follow-up approaches (e.g. Sosdian & Sharp 1980) utilize contact information obtained for individuals who did not respond to an initial survey. These individuals are then contacted by the research team and asked why they failed to comply with the request for survey completion. Among the reasons frequently cited by nonrespondents who are interviewed are: lack of time, never received questionnaire or questionnaire got lost. Although follow-up approaches provide some insight into nonrespondents' rationales, they are likely to be limited in terms of the information that can be

obtained. For instance, nonrespondents are unlikely to tell a member of the initial survey research team that they thought the survey topic was boring, or that they disagreed with the general premises of the survey. In other words, socially desirable responses appear rather likely to occur in personal follow-up interviews.

Population profiling. More recently, population profiling approaches (Rogelberg et al. 2003) have shown promise for the more fine-grained study of survey response behavior because they allow researchers to distinguish between different groups of nonrespondents. In using population profiling as a research method and approach, researchers gain access to a setting where completing a survey is mandatory. As a result, access to a near 100% response rate can be ascertained (e.g. training class setting). In a first step, individuals complete an initial survey that assesses constructs related to nonresponse and provide contact information, such as an email or postal address. Several weeks later they then receive an invitation to participate in a seemingly unrelated survey. Response or nonresponse to the follow-up survey is then related to variables contained in the initial dataset, allowing for a detailed comparison of respondents and nonrespondents on numerous variables. Recent studies (Rogelberg, Little & Spitzmueller 2005; Spitzmueller, Glenn, Barr, Rogelberg & Daniel 2006) have successfully used population profiling and gained access to new and relevant information about nonrespondents.

Population profiling approaches have also been combined with intentions methodologies (Rogelberg, Luong, Sederburg & Cristol 2000). Intentions methodologies ask individuals in a cross-sectional survey whether they intend to complete a future survey within a given time frame if they are asked to do so. Usually, rating scales that range from 'definitely will not participate' to 'definitely will participate' are applied, and individuals with and without intentions to complete surveys are compared. In combining intentions methodologies with population profiling methods, researchers have found that – although large numbers of individuals indicate they intend to complete future surveys – only about 10-15% state they would not complete future surveys. In contrast, actual survey response in population profiling studies lags behind individuals' intentions to respond: The majority of individuals who report intentions to complete future surveys never follow up when they are actually asked to complete a survey. As a result, Rogelberg et al. (2003) classified nonrespondents into two groups: active nonrespondents and passive nonrespondents. Active nonrespondents are individuals who do not intend to respond, and behave consistently when asked to respond. Passive nonrespondents, in contrast, are those who initially reported intentions to complete future surveys, but who fail to actually follow up when they are approached with a request for survey completion. Passive nonrespondents generally make up the largest group of nonrespondents, and are reported to make up about 70% of the overall population initially surveyed in previous population profiling studies.

Most recently, Rogelberg et al. (2005) have further combined population profiling, intentions, and follow-up approaches to gain a more holistic picture of nonrespondents and their characteristics. They conducted population profiling studies, collected information about intentions to respond on the initial survey, and followed up by email with all nonrespondents (both active and passive), asking them why they did not complete the follow-up survey. Results of these studies generally support that passive and active nonrespondents do not complete surveys for different reasons: disinterest in the particular topic and perceived irrelevance of the topic (Rogelberg, Little & Spitzmueller 2005) appear to play a role for passive nonrespondents. Active nonrespondents, in contrast (if they respond to the follow-up email at all) express hostility and anger with the survey sponsor, which is consistent with the finding that active nonrespondents experience less social exchange with their organization and have lower perceptions of organizational fairness and support than do passive nonrespondents (Spitzmueller, Glenn, Barr, Rogelberg & Daniel 2006).

Methodological challenges in nonresponse research

Nonresponse research methodology has been plagued by challenges, with the difficulty of gaining access to nonrespondents, who generally fail to comply with requests for survey completion, only being one of them. Other challenges involve attempts to conduct ethically responsible research that is based on participants' voluntary survey completion and informed consent. In most cases, efforts to make survey participation in nonresponse studies completely voluntary leads to low response rates, and results in access to no or very low numbers of individuals who are usually passive nonrespondents, and virtually no access to active nonrespondents.

Efforts to capture the response behavior of actual employees should receive particular attention – over the past years, research on organizational survey response has focused on examining students (Rogelberg et al. 2003; Spitzmueller, Glenn, Barr, Rogelberg & Daniel 2006). Although students are stakeholders in their organization who form attitudes towards their organization (Mael & Tetrick 1992), their relationships with their university may involve lower levels of perceived obligation towards the survey sponsor than surveys conducted in situations that involve the social exchange relationships typical for employers and their employees.

Statistical power and access to sufficiently large numbers of active nonrespondents and respondents pose further challenges – if only 10%-15% of an initial population are active nonrespondents, it is imperative for researchers interested in comparing them to passive nonrespondents and respondents to gain access to rather large populations in the initial population profiling dataset. Moreover, if the objective is to examine moderated relation-

ships as predictors of response behavior or the processes that explain nonresponse, the required sample sizes for initial profiling stages are likely to have to be quite large. Attaining these initial population profiling datasets can be particularly challenging if survey administration has to occur in closed settings, such as classrooms, training or employee induction programs, which in most cases are unlikely to contain populations of 500 or even more (which may be necessary depending on anticipated effect sizes, number of respondents versus nonrespondents in the particular dataset, and the analytical techniques chosen for statistical analysis). Moreover, there are ethical considerations regarding the voluntary nature of survey participation as well as concerns regarding the quality of data obtained from a closed administration setting. Keeping in mind the various methodological challenges mentioned earlier, we now turn to a discussion of results of previous research on survey response behavior and nonresponse in organizational surveys, as well as our discussion of variables that would be fruitful to examine as antecedents of nonresponse in future research.

Demographics, attitudes, organizational experiences, survey characteristics, and personality antecedents of response behavior

Organizational survey respondents and nonrespondents have been frequently compared on demographic variables. Generally, research supports that women, older employees, Caucasians, and individuals with higher education levels are more likely to respond than males, younger workers, members of minority groups, and those less educated (Gannon, Northern & Carroll 1971; Rogelberg, Luong, Sederburg & Cristol 2000). Interestingly, research on demographic differences between respondents and nonrespondents has rarely examined variables that may explain why demographic characteristics are predictive of survey response behavior. Although research in organizational behavior and applied psychology, as well as social psychology, has suggested the inclusion of psychological variables that may underlie demographic differences, these suggestions have not yet been implemented or examined in survey response behavior research. For instance, gender roles, such as masculinity and femininity (Goktepe & Schneier 1989; Kirchmeyer 2002), may explain more closely why more men than women fail to comply with requests for survey completion.

Recent nonresponse research has paid particular attention to individuals' organizational experiences with the survey sponsoring organization (Bosnjak, Tuten & Wittmann 2005; Rogelberg, Little & Spitzmueller 2005; Spitzmueller, Glenn, Barr, Rogelberg & Daniel 2006). Respondents as well as passive nonrespondents appear to perceive their social exchange relationships with their employers as more balanced, further, they are more likely to perceive organizational support and procedural justice as high, and psychological contract violations as low.

Exchange relationships may not only contribute to explaining differences in job and organizational attitudes of nonrespondents, but may also function as antecedents of employees' job attitudes. Past nonresponse research has found that, overall, respondents and passive nonrespondents appear to be similar in terms of satisfaction with their organization, affective and normative, as well as continuance commitment and intentions to stay with their organization (Rogelberg et al. 2003; Rogelberg, Luong, Sederburg & Cristol 2000). Similarly, previous research that compared active and passive nonrespondents' organizational attitudes found that respondents and passive nonrespondents share more positive organizational attitudes that are in contrast to the attitudes of active nonrespondents, which usually tend to be less positive.

Still there is much to learn about attitudes and social exchange as antecedents to survey response behavior. Notably, attitudes that have been studied have focused on the most commonly studied job attitudes (e.g. satisfaction and commitment), with less attention being devoted to other relevant job attitudes such as organizational identification (Mael & Ashforth 1992) and job involvement (Reeve & Smith 2000). The role of personality predictors in survey response behavior has also been debated for extended periods of time. Before the emergence of the Big Five framework, respondents and nonrespondents were compared on numerous trait attributes (Gough & Hall 1977). Although results were somewhat conflicting and difficult to integrate due to the use of numerous narrow personality traits, it appeared that respondents tended to be more gregarious, conscientious, and more disposed to adhere to social norms than nonrespondents. After the emergence of the Big Five framework (McCrae & Costa 1987), numerous studies have examined whether openness to new experience, conscientiousness, extraversion, agreeableness, and emotional stability contributed to survey response behavior. Conscientiousness appears to distinguish between respondents and passive nonrespondents, and Bosnjak, Tuten & Wittmann (2005) have identified additional differences on Big Five traits (e.g. openness to new experience) that may function as antecedents to survey response behavior.

Based on personality research's debate about the role of narrow versus broad traits in predicting behavior, response behavior research on social exchange has started integrating specific personality traits that pertain to individuals' propensity to view exchange relationships in different lights. For instance, reciprocation wariness has been found to be lower among active nonrespondents than among passive nonrespondents and respondents (Spitzmueller, Glenn, Barr, Rogelberg & Daniel 2006). As a result, the examination of other exchange-oriented personality traits may lead to a more thorough understanding of the specific dispositional characteristics that relate to response behavior. Research efforts geared in this direction are likely to find support as specific, narrow personality traits appear to be more likely to predict specific behaviors in a certain domain than broad overall patterns of behavior, where broad traits like the Big Five are more likely to matter (Ones & Viswesvaran 1996).

Integrated framework for the study of survey response behavior

In the following sections, we discuss our theoretical framework for the study of survey response behavior. Based on previously developed theories for survey response behavior (Bosnjak, Tuten & Wittmann 2005; Dillman 2000; Rogelberg et al. 2003; Rogelberg, Luong, Sederburg & Cristol 2000) we propose an integrated framework for survey response behavior based on Rogelberg et al.'s (2000) model. The framework consists of individual differences, perceptions of survey characteristics, facilitating and inhibiting factors, and response intentions. We recognize that intentions are likely to partially mediate the relationship between individual difference characteristics and response behavior (Ajzen 1991; Bosnjak, Tuten & Wittmann 2005; Fishbein & Ajzen 1975). Thus, discussions of survey response behavior as an outcome variable assume intentions to respond function as a partial mediator in our model. In the following sections, we discuss the role of individual differences, perceptions of survey characteristics, facilitating and inhibiting situational factors, and intentions to complete surveys in actual compliance with requests for survey completion. In introducing the proposed extension of Rogelberg's (2000) framework, we also propose several moderator effects that may explain why some main effect findings that were detected in previous research (e.g. role of Big Five personality traits) have been inconsistent across studies.

Demographic variables and survey response behavior – proposed mediators

Previous nonresponse research has identified age, gender, education level, and ethnicity as precursors of survey response behavior. Namely, older individuals, females, those with higher levels of education, and Caucasians have been found to be more likely to complete surveys. Still, we know very little about the psychological and situational variables that lead members of some demographic groups to respond to organizational surveys. In other words, research about demographic antecedents of nonresponse has been rather descriptive. Social psychologists have argued for long that examining demographic variables such as gender as a predictor may be interesting, but may ultimately fail to explain why demographic differences do occur, or what psychological mechanisms account for the differences between men and women and other demographic groups (e.g. differences between ethnic groups).

As part of our framework, we proposed that the relationships between demographic variables and survey response behavior may be mediated by social exchange variables, and by reciprocity-oriented personality variables. Previous nonresponse research has identified procedural justice, perceived organizational support, and the personality variable of reciprocation wariness as precursors to survey response (Spitzmueller, Glenn, Barr, Rogelberg &

Daniel 2006). We propose that differences in perceptions of social exchange variables and personality variables pertaining to exchange, such as reciprocation wariness and equity sensitivity are likely to mediate the relationship between demographics and organizational survey response behavior. Specifically, older individuals, the more educated, and Caucasians may perceive having received more benefits and support from their organization than younger employees, those with lower education levels, and non-Whites.

Possibly, relationships between gender and survey response behavior may be explained by examining reciprocation wariness as a potential mediator. Reciprocation wariness is defined as an individuals' general tendency to feel exploited in social relationships, or to contribute more than one receives back (Eisenberger, Armeli, Rexwinkel, Lynch & Rhoades 2001; Eisenberger, Cotterell & Marvel 1987). Females may be more likely to be low on reciprocation wariness than males, expecting lower levels of pay-off for contributions (Newson 2002), and possibly perceiving what they are getting back from their organization for their efforts as more commensurate with their input. As a result, females may view participation in an organizational survey more as an opportunity to reciprocate than as the organization's efforts to exploit employees and take more from the exchange relationship between employee and employer than adequate.

Future research on demographic differences as antecedents of nonresponse should also examine which psychological variables may explain why females are generally more likely to respond to surveys than males. Recent research on gender differences has proposed that a gender schema, or one's mental framework for the processing of gender-specific information (Eddleston, Veiga & Powell 2006; Goktepe & Schneier 1989) may explain why males and females differ in various dimensions of organizational behavior, such as valued career outcomes. Similarly, one's gender schema may be responsible for helping one's organization through survey completion. For instance, female gender schemata are likely to be aligned with altruism towards the organization and those who request survey completion, while male gender schemata may lead individuals to not view survey completion as an action consistent with one's gender schema. In other words, helping behaviors may not be as central to male gender schemata as to those of females.

Previous organizational experiences and survey response behavior

Rogelberg et al. (2006) proposed the integration of organizational experiences into models of survey response behavior. Previous experiences with surveys, and survey-based organizational development interventions may influence the benefits employees view in complying with a request to complete an organizational survey. If employees are under the impression that neither follow-up activities nor organizational changes resulted from

previous organizational survey efforts, employees may be less likely to be willing to contribute their opinion again if they feel their previous survey completion made no difference. Thus, we propose that organizational cynicism (Johnson & O'Leary-Kelly 2003; Newson 2002) should be examined as a potential antecedent to survey response behavior that captures an individual's perception of whether the organization has adequately dealt with data previously collected, or whether employees feel that 'no matter what, nothing will change'. More distal variables, such as an organization's way of dealing with employee suggestions for improving processes, may also impact organizational survey response behavior. Consistent with previous research on social exchange models as antecedents of survey response (Dillman 2000; Dillman, Eltinge, Groves & Little 2002; Spitzmueller, Glenn, Barr, Rogelberg & Daniel 2006), we argue that if organizational stakeholders experience that their voices are generally heard and their opinions are taken seriously, they may be more likely to contribute further by participating in employee surveys.

Organizational reward system's sensitivity to organizational citizenship behavior may also play a role in employees' likelihood to complete organizational surveys. Schnake & Dumler (1997) identified organizational reward systems as predictive of employees' reported engagement in organizational citizenship behavior. As past research on survey response behavior has argued that survey response behavior is closely linked to organizational citizenship behavior, organizations where reward systems are in place that encourage citizenship behavior and/or interpersonal helping behavior may benefit in terms of higher response rates in organizational surveys.

High levels of trust in management that were established over time may also influence response behavior in that individuals who perceive their managers as trustworthy may have fewer concerns about organizational survey data being misused or used to identify those with negative attitudes. In other words, individuals who trust management at their organization may perceive survey anonymity as more favorable than individuals who distrust their management. Perceptions of survey anonymity may thus mediate the relationship between trust in management and response behavior.

Personality and survey response behavior

Research on the influence of personality on survey response behavior has lead to mixed findings, and somewhat inconsistent results (Rogelberg & Luong 1998). Initial examinations compared respondents and nonrespondents on traits such as gregariousness (Ognibene 1970), intellectualism (Vincent 1964), with results being difficult to compare due to the various personality frameworks that were applied. After the Big Five framework unified personality research (McCrae & Costa 1987, 1999), nonresponse research has utilized Big

Five traits to examine response behaviors (Marcus & Schutz 2005; Rogelberg et al. 2003; Rogelberg & Luong 1998). Some researchers have found that active nonrespondents are likely to be lower on both conscientiousness and agreeableness than passive nonrespondents and respondents, with passive nonrespondents also being somewhat lower on conscientiousness than respondents (Rogelberg et al. 2003). Others have identified extraversion, and openness to new experiences as supplementary predictors of survey response behavior (Marcus & Schutz 2005). Notably, findings relating the Big Five traits to nonresponse are somewhat conflicting in that results pertaining to conscientiousness, extraversion, agreeableness and openness to new experience have not been consistently found across studies. As survey response behavior is a rather specific behavior, one reason for the inconsistent findings across studies may stem from the fact that broad personality traits may not be as predictive of specific behaviors in a given domain as narrower personality traits that are facets of the Big Five or other models (Ones & Viswesvaran 1996). Recent research supports the notion that reciprocation wariness, or an individuals' disposition to feel exploited in social relationships, is likely to relate more strongly to survey response behavior than the Big Five personality traits (Spitzmueller, Glenn, Barr, Rogelberg & Daniel 2006). Thus, an examination of the role of other narrower personality traits in survey response behavior may prove beneficial. For instance, equity sensitivity, an individual difference variable that pertains to individuals' preferences pertaining to equity and inequity (Huseman, Hatfield & Miles 1987), another exchange-oriented personality variable, may impact survey response behavior. Benevolent individuals who deem high input on their part acceptable despite possibly somewhat low output on the organization's part are likely to be more comfortable completing a survey at the request of an organization than those who are equity sensitive (prefer equal input and output) or who feel entitled (prefer receiving more output than providing input).

Previous nonresponse research has also not yet responded to calls to integrate affective personality variables more strongly into organizational behavior research (Brief 2001). Trait positive affect, or the predisposition to experience positive affective states frequently (Lyubomirsky, King & Diener 2005; Watson, Clark & Tellegen 1988), may also relate to survey response behavior. Research on correlates of life success and happiness has found that positive affect relates to high level of energy and intense participation and engagement in life activities (Lyubomirsky, King & Diener 2005). As survey completion requires taking action, participating and taking an extra, active step to complete a survey, trait positive affect may influence response behavior, and may distinguish between those who intend to complete surveys in contrast to those who fail to comply with requests for survey completion.

Individuals' dispositional tendencies to engage in impression management and other socially desirable behaviors may affect survey response behavior, particularly in circumstances where anonymity of survey response is not a given. Those interested in impressing others and/or behaving in a socially desirable manner may be more likely to complete surveys than others who are less inclined to be agreeable, help others and their organization, and make a favorable impression.

Culture and survey response behavior

Organizational surveys used to be predominantly administered in one language and one country. Within the globalization of the workforce over the last decades, the practice of organizational survey administration has moved to many organizational surveys being conducted across cultures and in various different languages (Liu, Borg & Spector 2004). As a result, survey instructions and mechanisms that have been identified as influential in survey response behavior may be altered through the influence of culture (Johnson, O'Rourke, Burris & Owens 2002). For use in survey response research, culture has been defined as "a shared language and set of norms, values, beliefs, expectations and life experience" (Johnson et. al. 2002: 55).

In discussing the role of survey response in culture, Johnson et al. argue that cultural dimensions such as power distance and individualism and collectivism (Johnson, O'Rourke, Burris & Owens 2002) may influence response behavior. They propose that power distance (in cultures high on power distance, social equality is not emphasized, and some individuals possess much higher degrees of power than others) may impact survey response behavior. They predict that in high power distance cultures, if requests for survey completion originate from individuals with high power, employees may feel more pressured to respond than in low power distance cultures. Extending Johnson et al.'s predictions by integrating Rogelberg et al.'s (2003) framework for distinguishing different groups of nonrespondents, we hypothesize that in high power distance cultures where requests for survey completion come from an individual with high position power, there are likely to be fewer passive nonrespondents than in low power distance cultures. In particular, we suggest that passive nonrespondents in high power distance cultures feel more committed to engaging in activities recommended by those in power than individuals in low power distance cultures.

The cultural dimension of individualism/collectivism pertains to the value attributed to group versus individual interests (Johnson, O'Rourke, Burris & Owens 2002). In cultures where group interests are emphasized, requests for survey completion from members of the same group may be more impactful than those of individuals outside the reference

group. In contrast, in highly individualistic societies, it may play less of a role whether the individual requesting the survey completion comes from within or outside one's group or environment. Again, we anticipate that for passive nonrespondents in highly collectivist cultures, a request from within the collective or group will impact whether an individual feels compelled to respond, or whether they feel they can act upon other attitudes and time constraints in deciding whether to respond or not respond to an organizational survey. In contrast, the appeal for help from a group member is less likely to affect one's decision to respond to a survey than individual attitudes and personal gain in an individualist culture. These predictions about the influence of culturally-contingent levels of individualism are consistent with findings on utilitarian individualism in panel surveys, which has been found to predict survey response behavior (Loosveldt & Carton 2002).

Attitudinal predictors of survey response behavior

Satisfaction with the survey sponsor, continuance, normative and affective commitment have all been examined as predictors of survey response behavior (Rogelberg et al. 2003; Rogelberg, Luong, Sederburg & Cristol 2000). Although initial research identified few and inconsistent differences between respondents' and nonrespondents' attitudes, recent research that utilized the more fine-grained distinction between passive and active nonrespondents has provided an explanation for some of the conflicting earlier findings. Respondents and passive nonrespondents appear to have similar attitudes towards their organization. In contrast, active nonrespondents generally report more dissatisfaction and less affective and normative commitment (Rogelberg et al. 2003).

Altogether, examinations of job attitudes as predictors of survey response behavior have been rather limited. Among the studies that have examined potential respondent's attitudes as predictors of survey response, methodological and external validity challenges are prevalent. The studies that have used actual employees to investigate attitudes as predictors of survey response have used intentions to complete surveys as a proxy for actual survey completion behavior (Rogelberg, Luong, Sederburg & Cristol 2000). Although intentions are powerful proximal predictors of actual behavior, they remain proxies for actual survey response. Other studies gained access to actual survey response behaviors, but failed to gain access to employee samples. Instead, students' satisfaction and commitment towards their university were assessed. Admittedly, students' relationships with their university may be somewhat comparable with the relationships between employees and their organization. Still, more detailed investigations of the role of job attitudes in response behavior is needed in actual employee samples.

Previously studied job attitude predictors of survey response have focused on traditional organizational attitudes, such as satisfaction and organizational commitment. Other rele-

vant job attitudes, such as job involvement and organization identification, may also influence survey response behavior. Job involvement, or the extent to which an individual views their job as being a part of their self-concept and identity (Kanungo 1982; Lodahl & Kejnar 1965; Reeve & Smith 2000) may lead employees to view completion of work-related requests as essential to maintaining a positive self-image. Thus, individuals high on job involvement may be more likely to complete organizational surveys than individuals low on job involvement. Organization identification, or an employee's perception of sharing the values and characteristics of their organization (Mael & Ashforth 1992; Mael & Tetrick 1992), may also impact survey response. Employees high on organizational identification may view requests to complete organizational surveys as related to the organization's goals, and thus their own goals and values, which are consistent with the organization's. In line with previous research findings on attitudinal differences between respondents and nonrespondents, we expect active nonrespondents to differ from both passive nonrespondents and respondents in job involvement and organizational identification.

Attitudes towards surveys and perceptions of anonymity

Previous research has identified individuals' attitudes towards surveys as being influential in determining quality of responses, item level responses, and enjoyment in survey completion (Rogelberg, Fisher, Maynard, Hakel & Horvath 2001). As item nonresponse and unit nonresponse have been proposed to lie on a nonresponse continuum (Groves, Dillman, Eltinge & Little 2002), survey attitudes may not only affect item response and related behaviors, but also unit nonresponse in organizational surveys.

Nonresponse research outside the domain of organizational survey nonresponse has also identified perceptions of survey anonymity as relevant for response behavior and survey response rates (Bjarnason & Adalbjarnardottir 2000; O'Malley, Johnston, Bachman & Schulenberg 2000). Comparisons of confidential and anonymous surveys examining sensitive issues (e.g. drug and alcohol usage behavior, depression) have found higher levels of missing data in confidential than in anonymous surveys, suggesting that granting participants full anonymity may be beneficial in obtaining high-quality data with minimal intentional distortion of responses. In surveys assessing drug and alcohol usage, confidential survey response was also associated with higher nonresponse than in anonymous survey completion conditions. Thus, organizational surveys that assess potentially sensitive information (e.g. perceptions of managers and supervisors) should utilize anonymity in order to improve survey response behavior. Again, we anticipate that assurances of anonymity may impact the response behavior of passive nonrespondents, but not that of active nonrespondents whose decision not to respond is based on their more negative attitudes towards their organization (Rogelberg et al. 2003; Spitzmüller et al. 2006)

Perceptions of survey characteristics and survey response behavior

Survey characteristics, such as information provided about a survey's sponsor, topic domain of the survey and survey formatting, as well as survey length, may also impact survey response behavior. Public opinion research has shown that survey topic is a salient and relevant determinant of response behavior (Groves, Presser & Dipko 2004). Specifically, individuals' interest in a survey's topic has been found to relate to increased likelihood of survey response, potentially contributing to biases that may be of concern for organizational survey research as well as those examining response behavior in public opinion research. In research on organizational survey nonresponse, the content of organizational surveys has received relatively little attention in previous empirical studies, although findings from public opinion research may well translate.

Organizational surveys (both those that are administered via the internet or those that use paper-and-pencil methods) vary substantially in terms of formatting used, and in terms of the way survey cover letters as well as consent forms are structured to entice potential respondents to complete surveys. Again, public opinion and marketing research can inform research on organizational survey response behavior about the role of cover letter content, formatting of individual (web) pages, and other formatting decisions (Blair & Zinkhan 2006). Similarly, relatively little attention has been paid to the role of survey sponsors on response behavior. For instance, one may wonder whether requests for survey completion from an independent research institute or a university research lab lead a different set of individuals to respond than requests originating from an employer. Variables that may play a role in whether researchers' requests are more or less likely to be answered than organization's requests include information about data usage that is provided in the survey cover letter or cover email. For individuals who generally value education and knowledge, researchers' purposes in conducting surveys may be as persuasive as organizations' purpose to use survey data as a basis for organizational development interventions. In contrast, for individuals who see little benefit in independent researchers generating knowledge, an organization's request tied to an OD intervention may appear more practical.

Recently, more attention has been paid to the potential differences between web-based and paper-based surveys, as well as their respective influence on response behavior (Bosnjak, Tuten & Wittmann 2005). Previous findings in other fields that examined response rates for web-based versus paper-based surveys appear inconsistent, with sport psychologists (Lonsdale, Hodge & Rose 2006) and evaluation researchers (Kiernan, Kiernan, Oyler & Gilles 2005) reporting higher response rates for online surveys than for paper-based surveys, while researchers surveying physicians obtained lower response rates to web-based than to paper-based surveys (Leece 2004). Methods known to enhance response rates in

paper-based surveys, such as the personalization of cover letters, were not found to be fully effective for web-based surveys (Porter & Whitcomb 2003), leading some to the conclusion that relationships between predictors of survey response behavior need to be re-examined if response to web-based surveys is the outcome variable.

Several factors have recently been proposed that may impact web survey response, but not response to a paper survey (Rogelberg, Little & Spitzmueller 2005). Generally, it appears that variables impacting internet adoption and usage behavior may also be influential in determining web-based survey response behavior. Management Information Systems researchers have, over the past decades, refined models predicting technology adoption that have been successfully applied to internet usage and adoption of web-based systems, such as online credit card usage and shopping (Davis & Venkatesh 1996; Pavlou & Gefen 2004; Venkatesh 2000; Venkatesh, Morris, Davis & Davis 2003). Performance expectancy, or the "degree to which an individual believes that using the system will help him or her to attain gains" (Venkatesh, Morris, Davis & Davis 2003: 447), effort expectancy or the "degree of ease associated with the use of the system" (Venkatesh, Morris, Davis & Davis 2003: 450) and variables pertaining to the degree of control an individual perceives over computers and the internet as a medium, such as computer self-efficacy are likely to influence comfort and likelihood of using the internet. This model suggests that individuals who are hesitant to use the internet, may also not respond to web-based surveys.

Situational constraints, facilitating conditions, and survey response behavior

Numerous factors may facilitate survey completion, while others may reduce the likelihood of an individual actually completing a survey. In his 2000 model for survey response behavior, Rogelberg et al. introduced several situational factors that may constrain survey response behavior. These situational constraints decrease the likelihood of an individual completing a survey, and include factors such as: time availability, proximity to a survey drop station, and the availability of high-speed internet access for web-survey response. In contrast, other situational factors, such as a raffle, gift, cash or other incentives for participation, may facilitate survey response in that they may increase the likelihood of an individual responding to organizational surveys. Notably, few studies have examined the role of situational constraints on response behavior, with incentives being among the more frequently investigated predictors of response (Church 1993; James & Bolstein 1992).

Job characteristics introduced in the job stress literature may also function as an additional situational constraint on individuals' likelihood to respond to organizational surveys. For instance, recent research (Barr et al. 2006) found job ambiguity to be predictive of survey response behavior. Individuals were more likely to complete organizational surveys if

they experienced high levels of role ambiguity than if they experienced little or no role ambiguity. This points to the possibility that employees who are uncertain about their job responsibilities and experience role ambiguity (House & Rizzo 1972) may in fact view completion of an organizational survey as part of their job responsibilities, while others who experience lower levels of role ambiguity may feel certain that survey completion is not a mandatory or required component of their job, functioning as a situational constraint.

Rogelberg et al. (2000) also proposed organizational norms pertaining to survey completion as a facilitating factor that may enhance the likelihood of response to organizational surveys. If norms in organizations are influential predictors of survey response, then norms pertaining to engagement in helping behaviors at work may also be additional predictors of survey response behavior. This assumption is based on the notion that survey response behavior closely resembles other helping behaviors at work, which may be influenced by organizational norms for engaging in helping behaviors. Other organizational climate aspects that may enhance chances of individuals responding to surveys may pertain to innovation and feedback – individuals who perceive their organization as receptive to new ideas and constructive comments, and who feel voicing ideas is supported and rewarded may be more likely to view an organizational survey as an opportunity to engage in organizationally desired behavior than employees who feel their organization fails to value their feedback and innovative ideas.

Interactions between situational constraints and individual differences variables

Previous nonresponse research has rarely examined interaction effects, despite their potential to further our understanding of survey response behavior. In this section, we discuss the potential moderating effects of personality variables on the influence of situational constraints on survey response behavior.

Situational factors were hypothesized in previous research to reduce or increase chances of individuals to respond to surveys (Rogelberg, Luong, Sederburg & Cristol 2000). Notably, situational constraints may influence the relationship between intentions to respond and actual response behavior. If time constraints are present, or the resources such as available high-speed internet access or proximity to a post office are absent, individuals may – despite good intentions – fail to complete organizational surveys. We assert that the influence of situational constraints on actual response behavior may be moderated by personality and attitudinal factors. In terms of personality, we suggest that for highly conscientious and highly agreeable individuals, high situational constraints are less likely to impact their response behavior. The personality dispositions should lead them to pursue conscientious and agreeable actions even in the presence of obstacles. Individuals who are

high on conscientiousness may, through their attention to detail and their diligent actions, overcome situational constraints and respond despite the presence of constraints. For example, a not very conscientious individual may fail to complete a web-based survey if he or she has no internet connection at home. Highly conscientious individuals, in contrast, may further pursue the option of completing the survey by seeking alternative means of completing it other than using their personal internet connection. Agreeableness may play a similar role – highly agreeable individuals who may want to complete the survey in order to assist those conducting it may try to overcome the situational constraints by seeking alternative means of completion, while individuals low on agreeableness may be less likely to attempt to overcome situational constraints since they are less motivated to provide help or assistance to those organizational members conducting the survey.

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