

6-1-2011

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Recommended Citation

Hausdorf, Peter A.; Risavy, Stephen D.; and Stanley, David J. (2011) "Interpreting organizational survey results: a critical application of the self-serving bias," *Organization Management Journal*: Vol. 8: Iss. 2, Article 3.

Available at: <https://scholarship.shu.edu/omj/vol8/iss2/3>



Current Empirical Research

Interpreting organizational survey results: a critical application of the self-serving bias

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Abstract

Surveys are used extensively by researchers and practitioners in organizations to measure employee attitudes and assess organizational health. Survey items can reflect a wide range of topics including employee attitudes, perceptions of management, and organizational culture. Surprisingly, the issue of whether employee focused items produce more positive employee responses (*vis-à-vis* manager or organization focused items) has received little attention. Specifically, there may be self-serving biases in organizational survey responses that may lead to inaccurate diagnosing of organizational problems. We assess the impact of self-serving biases on the pattern of employee responses to organizational surveys. Results from two studies suggest that employees respond more positively to items that are self-focused and less positively to items that are other-focused. Therefore, to the extent that surveys contain both types of items, these biases may influence the diagnosis of organizational problems. In addition, results from the second study suggest that employees glorify themselves for both self-enhancement and social desirability reasons. Implications are discussed.

Organization Management Journal (2011) 8, 71–85. doi:10.1057/omj.2011.11

Keywords: organizational survey; self-serving bias; employee survey; organizational diagnosis; survey response point of view



Organization
Management
Journal

Surveys are a popular and ubiquitous tool in Industrial and Organizational Psychology research and practice (Rogelberg *et al.*, 2002). Typically, surveys allow researchers and/or organizations to collect data on many employee issues, such as: general attitudes (e.g., employee engagement, commitment, motivation), specific attitudes (e.g., job satisfaction, supervisor satisfaction), organizational climate, change readiness, and employee needs (e.g., Dunnington, 1993). In some ways there has been a strong implicit assumption that employee surveys provide accurate and valuable information that directs human resource efforts toward critical employee issues; however, biases may attenuate the effectiveness of employee surveys. We believe organizational survey responses can be conceptualized as a structured communication process between employees and management that is vulnerable to the same sort of biases that influence face-to-face communications.

Indeed, despite the common use of organizational surveys (Kraut and Saari, 1999), previous research has uncovered many consequences and causes of survey errors (Tourangeau, 2003). Because survey responses can be conceptualized as structured communication processes, these responses are susceptible to many of the same

cognitive processes and resulting biases that influence face-to-face communication. In spite of this, to our knowledge, no previous research has assessed the consequences and causes of organizational survey variability related to the self-serving bias. The self-serving bias is a fundamental cognitive bias, which suggests that people attempt to enhance their ego and self-confidence through several processes, which essentially involve viewing their behaviors in a positive manner (e.g., Miller and Ross, 1975).

If the self-serving bias inflates employee responses to self-focused items and deflates their responses to other-focused items, then it is more likely that self-focused items will have higher values than other-focused items. When these values are used to identify strengths and weaknesses for organizations, the self-serving bias may impact how the organization is diagnosed. In other words, the self-serving bias will result in more self-focused items being identified as strengths and more other-focused items being identified as weaknesses, which may not be accurate. This is a critical issue because organizational diagnoses, based on survey responses, are often used as the basis for human resource interventions. Such interventions may be misguided and ineffective if they are based on an inaccurate assessment of organizational problems due to the role of the self-serving bias. The current paper assesses the impact of self-serving biases on the pattern of employee responses to organizational surveys.

Self-serving bias in responses to surveys and questionnaires

Organizational surveys are a structured means of communication between employees and management. This communication is most commonly viewed from the employee perspective such that management is the audience. In this scenario, it follows that employees will engage in the same impression regulation strategies that they do in other communications with their management team. Therefore, we believe that self-focused items on organizational surveys will be endorsed more positively than other-focused items. There is precedence for this belief because the general phenomenon of people rating themselves favorably has also been documented in other areas (e.g., performance appraisal, personality questionnaires, etc).

Self-serving bias in performance ratings

Evidence for a self-serving bias in performance ratings has been found, for example, in a meta-analysis

of multi-rater performance data by Harris and Schaubroeck (1988). They found that mean self-ratings were more than half a standard deviation higher than supervisor ratings and a quarter of a standard deviation higher than peer ratings. Similarly, Patiar and Mia (2008) found subordinate self-ratings to be significantly higher than manager ratings of those subordinates across a number of performance dimensions.

Self-serving bias in personality questionnaires

The concept of faking in the personality literature also informs the current study; specifically, faking (i.e., artificially inflating scores on a measure of interest) is a form of responding in a socially desirable manner. Faking has been raised as a concern with the use of personality testing in personnel selection (Goffin and Boyd, 2009). Faking research has provided empirical support for the notion that applicants can and do increase their scores on socially desirable personality traits (i.e., "fake good") when motivated to present themselves in a positive manner (e.g., Viswesvaran and Ones, 1999). In addition, faking can also be consciously reduced when respondents are warned about faking (Dwight and Donovan, 2003; Robson *et al.*, 2008). This literature strongly suggests that people can and do attempt to control how they present themselves when motivated or instructed to do so.

Self-serving bias in organizational surveys

We believe that responses to organizational surveys are also vulnerable to the self-serving bias. Specifically, we believe that employees engage in impression management when responding to organizational surveys. Impression management is a broad term used to describe "the process by which individuals attempt to control the impressions others form of them" (Leary and Kowalski, 1990: 34). In the current paper, we will be examining the specific facet of impression regulation (Schlenker and Weigold, 1992). A fundamental tenet of this perspective is that communication involves substantially more than just the transfer of information. Within the impression regulation perspective all communications are considered instrumental. People do not react passively to their environments, but rather, they attempt to structure their environments to facilitate goal acquisition through communication. Consequently, people regulate or control (with or without awareness) the information that they provide to others in an attempt to

further their professional goals and/or internal needs.

Why do people engage in impression regulation? Schlenker and Weigold (1992) suggest that people may have a variety of motives for engaging in impression regulation such as, self-glorification, self-consistency, and self-authentication. Most relevant to survey research is the *self-glorification motive* wherein people enhance and maintain their self-esteem by presenting information that portrays them in a highly positive manner (Leary and Kowalski, 1990; Brown and Gallagher, 1992). Presenting an overly positive version of oneself allows that person to both feel good and look good to others. Indeed, this type of behavior has been linked to psychological adjustment and favorable mental health (Taylor and Brown, 1988; Brown, 1991).

Given that impression regulation is believed to take place continuously throughout a communication, it raises the question of whether it happens consciously or without awareness. For the most part, impression regulation is likely the result of habitual patterns of behavior that are automatically triggered by situational cues (Schlenker and Weigold, 1992). Consciously controlled impression regulation is of course possible; however, it is most likely to occur when people believe the stakes are high (e.g., they are being carefully scrutinized; Leary and Kowalski, 1990). Surprisingly, self-presentations are more positive when the impression regulation occurs without awareness than when it occurs with awareness (Paulhus and Levitt, 1987; Paulhus *et al.*, 1989). On the basis of this research, we believe that impression regulation will occur even when (and maybe especially when) responses to organizational surveys are anonymous. Consequently, we believe that impression regulation research is relevant to interpreting employee responses obtained through anonymous surveys.

Summary

On the basis of the prior research on performance ratings and faking in personality assessment, it appears likely that employees may respond to self-oriented survey items in a different way compared with other-oriented survey items. More specifically, if employees engage in impression regulation for self-glorification motives, it follows that they will increase the positivity of their responses to survey items that refer to themselves (i.e., self-focused items). In contrast, they will not engage in this

positive inflation process for survey items that refer to others (i.e., other-focused items).

Hypothesis 1: *There will be a positive relation between the extent to which items are self-focused and the extent to which employees positively endorse those items.*

Diagnosis of organizational problems

We believe that, because employees are likely to provide more positive responses to self-focused organizational survey items, the diagnosis of organizational problems will be influenced. A common approach to identifying strengths and issues in organizational surveys is to sort the items based on the absolute highest or lowest aggregate responses (e.g., using mean values or the percentage of positive responses; Rogelberg *et al.*, 2002). If the survey respondents (i.e., the employees) inflate their responses to self-oriented items and not other-oriented items and the data are sorted based on absolute highest or lowest aggregate responses, then it is more likely that self-oriented items will be at the top of the list (i.e., as strengths) and other-oriented items will be at the bottom (i.e., areas for improvement). As a result, the interpretation of organizational survey results may reflect employee self-serving biases and not the actual issues in the organization *per se*.

A specific example may be illustrative here. Consider an organization that senses that it has a problem with employees being unclear about their roles. Now imagine that both employees and managers are equally responsible for this problem. The organization develops two survey questions to explore this issue: "I seek out information from my manager to help understand my role" (self-focused item) and "My manager provides me with information to clarify my role" (other-focused item). Based solely on the self-serving bias, employee responses will be higher for employees seeking out information (i.e., on the self-focused item) and lower for managers helping (i.e., on the other-focused item). If the organization decides to act on issues based on the lowest mean from employee responses (a common approach), then it will choose to focus on managers. As a result, managers will become the target of an intervention due to the lower mean on the other-focused item. This scenario is particularly troubling because in reality the higher mean for the self-focused item was due solely to self-serving bias.

We propose that the self-serving bias influences survey results such that organizational strengths

and weaknesses may be misdiagnosed by management teams assessing aggregate employee survey results. Moreover, we also expect that this self-serving bias toward positively endorsing self-focused items will influence the diagnosis of organizational problems.

Hypothesis 2a: *Items identified in the employee survey as Organizational Strengths (i.e., the 10 highest rated items) will contain a greater proportion of self-focused rather than other-focused items.*

Hypothesis 2b: *Items identified in the employee survey as Areas for Improvement (i.e., the 10 lowest rated items) will contain a greater proportion of other-focused rather than self-focused items.*

Next, we present the results of two studies, one based on a change readiness survey (Study 1) and the other based on an employee engagement survey (Study 2). In both studies we assess the aforementioned hypotheses and discuss their implications for organizational diagnoses based on employee survey data.

Study 1

Method

Participants. Participants were 1290 unionized, professional, and middle management employees from four independent health care organizations in Canada. An online employee survey was administered to employees in each organization as a diagnostic tool to assess their readiness for change prior to an organizational development intervention.¹ Change readiness surveys are used by organizations that are interested in assessing how ready the members of the organization are to implement a change initiative (e.g., Szamois and Duxbury, 2002; Jimmieson et al., 2009). The average response rate was 58%. The largest percentage of respondents (64%) worked in providing clinical services (e.g., nursing, education, pharmacy). The complement of the sample consisted of administrative staff (3%), middle management (5%), and other (primarily unionized hospital services staff). All staff members were invited to participate in the survey via email and posters placed in conspicuous locations throughout the organization. Respondents

were directed to a secure survey site via a URL. All survey responses were anonymous.

Measures. The 35-item survey focused specifically on issues that related to change readiness. These were as follows: Organizational Support for Change (11 items), Communication Effectiveness (5), Project Management Effectiveness (5), Absence of Work Stress (5), Employee Training (2), Employee Personal Accountability (4), and Employee Affective Commitment (3). These scales do not measure change readiness *per se* but all relate to employee attitudes that could be important from a change readiness perspective. For example, work stress is commonly measured in many employee surveys and it also relates to change readiness. For example, if employees rate themselves as having high stress, then this can be a barrier to their capacity for change. All items were assessed using a 5-point Likert response scale that ranged from Strongly Disagree (1) to Strongly Agree (5). This measure was specifically developed for the four organizations. An example of a self-focused item is: "I feel a high degree of personal responsibility for the work I do on this job." An example of an other-focused item is: "Communication among work units in this hospital is excellent" (please refer to Tables 2 and 3 for additional items from the change readiness survey invoked in Study 1).

Although the focal results of the current study were concerned with item-level differences and not underlying constructs, we also assessed the hypothesized measurement model (i.e., the expected factor structure of the change readiness survey) using a confirmatory factor analysis (CFA). The results of the CFA provided evidence that the independence model (i.e., a model where all factors are uncorrelated; $\chi^2=24260.86$; $df=630$; RMSEA=0.17; NFI=0.00; TLI=0.00; CFI=0.00) provided a significantly worse fit to the data than did the measurement model ($\chi^2=3390.78$; $df=539$; RMSEA=0.06; NFI=0.86; TLI=0.86; CFI=0.88), both when examining fit indexes and when directly comparing the models using a change in chi-square test ($\Delta\chi^2=20870.08$; $\Delta df=91$; $P<0.001$). In sum, the results of the CFA provide evidence for the construct validity of the change readiness survey.

Expert ratings. Each item on the survey tool was assessed with respect to its focus on the self or others by the three authors (using a 9-point rating scale ranging from 100% self [1] to 100% other [9] with 5 representing 50% each). Expert raters

received the following definitions for self and other focus.

Self-focus: Survey items containing a self-focus allow respondents to improve their self-image by providing favorable ratings for items that ask about their own knowledge, skills, abilities, or other characteristics. Overall, self-focus survey items are about the employees themselves (e.g., “I am effective at work”) – as opposed to their manager(s), co-worker(s), workgroup, or organization.

Other-focus: Survey items containing an other-focus do not allow respondents to improve their self-image because these items do not ask about their own knowledge, skills, abilities, or other characteristics. Overall, other-focus survey items are about the employees’ manager(s), co-worker(s), workgroup, or organization (e.g., “My manager is effective at work”) – as opposed to the employees themselves.

The intra-class correlation coefficient (Shrout and Fleiss, 1979) between the three expert raters was 0.93 (two-way random effects model with absolute agreement and average measures) indicating high agreement across raters with respect to the self/other focus of the items (Landis and Koch, 1977). For the purposes of our focal analyses, items for which the mean expert rating was 4 or lower on the self-other scale (1–9) were designated as self-focused items. Similarly, items for which the mean expert rating was 6 or higher were designated as other-focused items. The remaining items were considered neutral with respect to the self/other focus.

Results and discussion

The means, standard deviations, intercorrelations, and internal consistency reliabilities for each scale are provided in Table 1. Coefficient alpha was above 0.70 (a level typically considered acceptable) for all measures. Moreover, the measures that consisted of predominantly self-focused items (e.g., employee personal accountability) received higher mean ratings than the measures that consisted of predominantly other-focused items (e.g., project management effectiveness).

Are self-focused items rated more positively by employees?

In support of Hypothesis 1, we found that expert ratings of self/other focus were significantly correlated with mean employee item ratings, across all items, such that items with higher (i.e., more

Table 1 Study 1 means, standard deviations, intercorrelations, and internal consistency reliabilities

	Mean	SD	Project Management Effectiveness	Communication Effectiveness	Organizational Support for Change	Employee Training	Employee Personal Accountability	Employee Affective Commitment	Absence of Work Stress
1. Project Management Effectiveness	2.91	0.74	0.87						
2. Communication Effectiveness	2.85	0.70	0.66**	0.80					
3. Organizational Support for Change	3.03	0.60	0.70**	0.72**	0.88				
4. Employee Training	3.00	0.94	0.54**	0.56**	0.60**	0.72			
5. Employee Personal Accountability	4.14	0.75	0.23**	0.27**	0.39**	0.27**	0.86		
6. Employee Affective Commitment	3.00	0.86	0.46**	0.50**	0.59**	0.48**	0.40**	0.74	
7. Absence of Work Stress	3.26	0.88	0.11**	0.10**	0.04	0.16**	-0.36**	0.05	0.83

**= $P < 0.01$.

Note: N ranges between 1250 and 1283. Coefficient alphas are on the diagonal in bold. Average scale score provided. Scale responses range from 1 (Strongly Disagree) to 5 (Strongly Agree).

positive) means were rated as being more self-focused by the expert raters ($r=0.52$, $P<0.01$).

To what extent was the diagnosis of organizational problems influenced by self-serving bias?

Many management consulting firms summarize their organizational survey results at the item-level and use the mean value as an indicator of *Organizational Strengths* and *Areas for Improvement* (often referred to as “Top 10 and Bottom 10” items; Rogelberg et al., 2002). Items with low means (i.e., items that are strongly disagreed with) are labeled as Areas for Improvement, whereas items with high means (i.e., items that are strongly agreed with) are labeled as Organizational Strengths. Tables 2 and 3 are based on this criterion and display Areas for Improvement and Organizational Strengths, respectively.

In addition, we examined the extent to which the items designated as Organizational Strengths or Areas for Improvement based on employee mean responses varied with respect to self/other focus. In support of Hypothesis 2a, for Organizational Strengths, 6/10 items were self-focused whereas 3/10 items were other-focused, indicating that employees believed that they were responsible for positive aspects of their organization. In contrast

and in support of Hypothesis 2b, with respect to Areas for Improvement, 1/10 items were self-focused, whereas 6/10 items were other-focused. This finding indicates that employees did not place the onus for improvement on themselves. These results illustrate that the self-serving bias may influence survey findings and the diagnosis of organizational problems.

There were several limitations to Study 1. First, the authors provided the expert ratings. Given that the authors were aware of the purpose of the study, their perceptions may have biased their ratings in favor of a relation between self-other foci and anticipated employee responses. Note, however, that two of the three authors were blind to the survey results when they independently made the expert self/other ratings. Second, the survey was focused on change readiness in health care organizations, which is not a typical focus of employee surveys. Therefore, the results may not generalize to typical employee surveys that have a more general focus or beyond health care organizations. Third, and most importantly, it is not clear based on the first study what has produced the inflation in self-oriented items. Respondents may be inflating self-oriented items to enhance their self-esteem (for internal needs) or to manage their presentation to others (for

Table 2 Top 10 items identified as areas for improvement

Item	Employee mean	Expert mean	Category
Communication among work units in this hospital is excellent.	2.34	6.33	Other
I really feel as if this hospital's problems are my own.	2.50	2.67	Self
Communication among other staff members in this hospital is excellent.	2.62	7.67	Other
Senior management allocates appropriate resources to implement change well.	2.64	9.00	Other
We focus on designing new processes across departments and teams before implementing changes.	2.76	5.33	Neutral
There is effective coordination of work efforts across all groups during the change process.	2.76	7.33	Other
There is cooperation across all groups during the change process.	2.77	7.00	Other
I am satisfied with the project management in this hospital.	2.86	4.33	Neutral
There are clear measures of success for change initiatives.	2.88	7.67	Other
I have regular opportunities for professional training and development.	2.89	4.67	Neutral

Note: Expert mean ratings range from 1 (self-focused) to 9 (other-focused).

Table 3 Top 10 items identified as strengths

Item	Employee mean	Expert mean	Category
I feel a high degree of personal responsibility for the work I do on this job.	4.28	1.00	Self
I am prepared to change how I perform my duties to provide better service to our patients.	4.11	1.67	Self
I care whether or not the work gets done right.	4.09	1.00	Self
I personally take credit or blame for the results of my work on this job.	4.07	1.67	Self
I feel like I'm at the end of my rope (R).	3.66	1.00	Self
This hospital needs to constantly change its practices to improve its services.	3.46	8.00	Other
There is not enough staff to get the job done (R).	3.44	6.33	Other
I can share work issues with employees who work different shifts than me.	3.43	4.33	Neutral
I would be very happy to spend the rest of my career with this hospital.	3.39	2.33	Self
The senior management in this hospital supports change.	3.23	9.00	Other

Note: R=reverse coded item; expert mean ratings range from 1 (self-focused) to 9 (other-focused).

external goals). Study 2 sought to corroborate the findings from Study 1 while addressing the aforementioned limitations.

Study 2

Self-serving bias in responses to surveys and questionnaires

As with Study 1, we hypothesized that there would be a positive relation between the extent to which items are self-focused and the extent to which employees positively endorse those items. That is, we predicted that employees would provide more positive ratings on items that are self-focused than those that are other-focused (i.e., Hypothesis 1).

Diagnosis of organizational problems

We again hypothesized that the proportion of self/other-focused items would differ across items identified as Organizational Strengths and Areas for Improvement based on percent positive values (also known as top box scores; Rogelberg *et al.*, 2002).² Items identified in the survey as Organizational Strengths will contain a greater proportion of self-focused rather than other-focused items (i.e., Hypothesis 2a). In contrast, items identified in the survey as Areas for Improvement will contain a greater proportion of other-focused rather than self-focused items (i.e., Hypothesis 2b).

Exploring potential reasons for self-glorification

An important purpose of Study 2, in addition to replicating the Study 1 findings, was to explore the reasons *why* individuals engage in self-glorification when responding to surveys. Specifically, individuals may rate self-focused items more positively to maintain or enhance the favorability of their self-concepts (i.e., self-enhancement), or they may respond in this manner for the purpose of appearing favorable to others (i.e., social desirability), or perhaps they self-glorify for both of these reasons.

Self-enhancement. The motivation to self-enhance is recognized as a “preference for cognitions and interpretations that foster a positive self-concept” (Duval and Silvia, 2002: 49). People engaging in self-enhancement report that they possess positive traits and do not possess negative traits (i.e., they describe themselves as they want to be rather than how they may actually be). For example, when asked to rate how effective they are at work, employees engaging in self-enhancement would be more likely to report that they are highly effective at work.

Social desirability. Social desirability is recognized as “the tendency of *test items* to elicit responses in the favorable direction” (Crowne and Marlowe, 1964: 12–13, italics in original). People engaging in social

desirability tend to present themselves favorably, irrespective of their actual beliefs (Podsakoff *et al.*, 2003). For example, people responding in a socially desirable way would tend to agree with items such as "I'm always willing to admit it when I make a mistake" or tend to disagree with items such as "I like to gossip at times" (Crowne and Marlowe, 1960: 351). Socially desirable responses to these types of items are favorable (good to admit mistakes and bad to gossip), yet are highly unlikely to be accurate (unlikely that one *always* admits mistakes or *never* likes to gossip).

Overview

In Study 2 we sought to replicate the findings from Study 1 concerning Hypothesis 1 (presence of self-serving bias) and Hypotheses 2a and 2b (impact of self-serving bias on diagnosis of problems). In addition, we also sought to examine the relationship between the extent to which survey items reflect particular types of self-glorification (i.e., self-enhancement and social desirability) in an exploratory manner.

We also attempted to overcome some of the limitations identified in Study 1 by using a modified methodology. Specifically, psychology faculty and graduate students who were unaware of the purpose of the study provided the expert ratings on the self/other focus of the survey items. As well, we used an employee sample from a different industry (i.e., employees from a consumer packaged goods company). Finally, we examined the self/other difference in a different type of employee survey (an employee engagement survey).

Method

Participants

Participants were 594 unionized, professional, and middle management employees from a medium-sized consumer packaged goods company in Canada. This organization manufactures, distributes, and markets its products to the Canadian marketplace. A survey was administered to employees in each division (on paper and online) as a diagnostic tool to assess employee engagement.³ The response rate was 86%. The largest percentage of respondents (49%) worked in line functions (e.g., sales, marketing, supply chain management, quality assurance). The second largest group was manufacturing (43%). The complement of the sample (8%) consisted of staff functions (e.g., finance, information technology, human resources). All staff members were

invited to participate in the survey via email and posters placed in conspicuous locations throughout the organization. For online participation, respondents received a URL, which directed them to the secure survey site. For paper-based participation, respondents were invited to scheduled group sessions to complete the survey. All survey responses were anonymous.

Measures

The 32-item survey focused specifically on issues that related to employee engagement. These were as follows: Pride in Organization (3 items), Confidence in Company Direction (3), Confidence in Management (4), Manager Effectiveness (5), Personal Motivation (4), Personal Effectiveness (4), Work Group Effectiveness (3), Work-Life Balance (2), and miscellaneous (4). All items were assessed using 5-point Likert response scales. This survey was developed specifically for the organization. An example of a self-focused item is: "In my job, I strive to do my best." An example of an other-focused item is: "The company supports employee's efforts to balance their work and personal life" (please refer to Tables 5 and 6 for additional items from the employee engagement survey invoked in Study 2).

Congruent with Study 1, we also assessed the hypothesized measurement model (i.e., the expected factor structure of the employee engagement survey) using a CFA. The results of the CFA provided evidence that the independence model (i.e., a model where all factors are uncorrelated; $\chi^2=11481.53$; $df=378$; RMSEA=0.22; NFI=0.00; TLI=0.00; CFI=0.00) provided a significantly worse fit to the data than did the measurement model ($\chi^2=827.63$; $df=296$; RMSEA=0.06; NFI=0.93; TLI=0.94; CFI=0.95), both when examining fit indexes and when directly comparing the models using a change in chi-square test ($\Delta\chi^2=10653.90$; $\Delta df=82$; $P<0.001$). In sum, the results of the CFA provide evidence that the employee engagement survey was well-designed.

Expert ratings

Expert ratings were provided by 10 anonymous and independent raters (five full-time psychology faculty members and five full-time psychology graduate students). Each item on the survey was assessed with respect to its focus on the self or others (using a 9-point rating scale ranging from 100% self [1] to 100% other [9] with 5 representing 50% each). Expert raters received the same



definitions for self and other focus as in Study 1. The intra-class correlation coefficient (Shrout and Fleiss, 1979) between the 10 expert raters was 0.97 (two-way random effects model with absolute agreement and average measures) indicating high agreement across raters with respect to the self/other focus of items (Landis and Koch, 1977).

Expert raters were also asked to rate each item based on the following:

Self-enhancement: Employees can respond to employee survey items in a way that would make those employees see themselves more positively. Employees can report that they possess positive traits and do not possess negative traits (i.e., they describe themselves as they want to be rather than how they may actually be). For example, agreeing with the item “I am good at my job.”

Social desirability: Employees can also respond to employee survey items in a way that would make those employees appear favorable to others. Employees can manage the impression that others create of them by responding to items in a way that is more favorable than may be true. For example, agreeing with the item “I support this company’s business plan.”

A 9-point rating scale was used for self-enhancement and social desirability. Scale points ranged from 1 (Not at All) to 9 (Extremely). Overall, self-enhancement influences employees to respond in ways that allow them to feel more positively about themselves. In contrast, social desirability influences employees to respond in ways that make them appear more positive to others. Regarding the self-enhancement ratings, the intra-class correlation coefficient between the 10 expert raters was 0.93 indicating high agreement across raters (Landis and Koch, 1977). Regarding the social desirability ratings, the intra-class correlation coefficient between the 10 expert raters was 0.61 suggesting moderate agreement across raters (Landis and Koch, 1977).

We note, however, that there was considerable range restriction in the expert ratings of social desirability ($M=6.10$, $SD=1.10$) with no mean ratings below 4.30. In contrast, the self-enhancement average expert ratings ranged from 1.70 to 8.10 ($M=4.70$, $SD=2.00$). This is not surprising as one can consider completing all items on an employee engagement survey as being influenced to some extent by social desirability. Lastly,

it is worth noting that the self-enhancement/social desirability distinction can theoretically exist for all items, yet this distinction is likely to be more prevalent for items that are more self-focused.

Results and discussion

The means, standard deviations, intercorrelations, and internal consistency reliabilities for each scale are provided in Table 4. Moreover, the scales that consisted of predominantly self-focused items (e.g., personal motivation, personal effectiveness) received higher mean ratings than the scales that consisted of predominantly other-focused items (e.g., manager effectiveness).

Are self-focused items rated more positively by employees?

Consistent with the findings of Study 1 and in further support of Hypothesis 1, expert ratings were significantly and positively correlated with average employee responses across all items ($r=0.50$, $P<0.01$) such that employees responded more positively to items that were self-focused than those that were other-focused.

To what extent was the diagnosis of organizational problems influenced by self-serving bias?

Tables 5 and 6 display items that would be identified as Areas for Improvement and Organizational Strengths, respectively. In support of Hypothesis 2a, 6/10 items identified as Organizational Strengths were self-focused and 1/10 was other-focused. In contrast and in support of Hypothesis 2b, with respect to the Areas for Improvement, 8/10 items were other-focused, whereas 2/10 items were self-focused. Thus, consistent with Study 1, more items pertaining to the self were identified as Organizational Strengths and more items pertaining to others as Areas for Improvement.

For both Studies 1 and 2 separately, the number of expected values in each cell was less than five (a minimum requirement for the chi-square test). As a result, the items from each study were combined for strengths and for areas for improvement for the analysis. These combined sets were analyzed with both Hypotheses 2a and 2b supported (strengths, $\chi^2=6.42$; $df=2$, $P<0.05$) (areas for improvement, $\chi^2=12.09$, $df=2$, $P<0.01$).

These results clearly indicate that the self-serving bias plays a role in the interpretation of employee survey data when descriptive information

Table 4 Study 2 means, standard deviations, intercorrelations, and internal consistency reliabilities

	Mean	SD	Pride in Organization	Confidence in Company Direction	Confidence in Management	Manager Effectiveness	Work Group Effectiveness	Personal Motivation	Personal Effectiveness	Work-Life Balance
1. Pride in Organization	4.31	0.85	0.92							
2. Confidence in Company Direction	3.81	0.81	0.73**	0.87						
3. Confidence in Management	3.54	0.93	0.72**	0.82**	0.92					
4. Manager Effectiveness	3.73	1.01	0.64**	0.61**	0.69**	0.93				
5. Work Group Effectiveness	3.91	0.79	0.58**	0.54**	0.55**	0.64**	0.83			
6. Personal Motivation	4.19	0.58	0.58**	0.42**	0.43**	0.40**	0.48**	0.68		
7. Personal Effectiveness	4.02	0.65	0.59**	0.51**	0.58**	0.65**	0.57**	0.42**	0.76	
8. Work-Life Balance	3.25	0.97	0.27**	0.28**	0.26**	0.22**	0.24**	0.23**	0.27**	0.68

** $P < 0.01$.

Note: N ranges between 570 and 582. Coefficient alphas are on the diagonal in bold. Average scale score provided. Scale responses range from 1 (Strongly Disagree) to 5 (Strongly Agree).

(mean or percent positive) is used as a basis for identifying Organizational Strengths and Areas for Improvement. Specifically, self-focused items tend to be listed as Organizational Strengths, whereas other-focused items tend to be identified as Areas for Improvement.

Exploring potential reasons for self-glorification

We assessed in an exploratory manner whether employees would endorse self-focused items more positively than other-focused items due to self-enhancement or social desirability reasons. We found that both of these explanations were consistent with our data. Specifically, employees responded more positively to items that were self-enhancing ($r=0.51, P<0.01$) and to items that were socially desirable ($r=0.60, P<0.001$). Thus, it appears that of the two possible self-glorification motives that were assessed, they both appeared to be plausible explanations for why employees would more positively endorse self-focused items. Put differently, employees likely respond higher to more favorable self-focused items for the purpose of enhancing the favorability of their self-concept (i.e., self-enhancement) as well as for the purpose of appearing favorable to others (i.e., social desirability).

In sum, employees tend to respond more positively to items that are self-focused and less positively to items that are other-focused. This bias in responding reflects both self-enhancement and social desirability and influences the identification of Organizational Strengths and Areas for Improvement in employee survey reports.

General discussion

We hypothesized that impression regulation would influence the diagnosis of organizational problems due to the self-serving bias. More specifically, we hypothesized that there would be a positive relation between the extent to which items are self-focused and mean employee ratings of those items (Hypothesis 1). This hypothesis was supported by both Studies 1 and 2. We also hypothesized that the items used to indicate Organizational Strengths and Areas for Improvement differed with respect to the self/other focus of the items. Organizational Strengths were more likely to be self-focused items (Hypothesis 2a), whereas Areas for Improvement were more likely to be other-focused items (Hypothesis 2b). These findings were supported in both Study 1 (based on item means) and Study 2 (based on percent

**Table 5** Top 10 items identified as areas for improvement

<i>Item</i>	<i>Employee mean</i>	<i>Expert mean</i>	<i>Percent positive (%)</i>	<i>Category</i>
The company supports employee's efforts to balance their work and personal life.	3.07	8.00	38	Other
To what extent has our management team made our business more successful?	3.35	8.10	45	Other
I feel involved in the decisions that affect me.	3.29	3.80	51	Self
To what extent does your management team member inspire confidence?	3.38	8.20	51	Other
I am able to balance my work and personal life.	3.43	1.80	55	Self
To what extent does your manager inspire trust and confidence?	3.56	8.70	59	Other
Our management team is clearly communicating the business direction for us.	3.65	8.60	61	Other
My manager provides good direction and feedback.	3.66	8.50	63	Other
The company provides me with opportunities to learn new skills and develop myself.	3.69	6.60	64	Other
Today more employee ideas are being implemented than 2 years ago.	3.73	8.40	64	Other

Note: Expert mean ratings range from 1 (self-focused) to 9 (other-focused).

Table 6 Top 10 items identified as strengths

<i>Item</i>	<i>Employee mean</i>	<i>Expert mean</i>	<i>Percent positive (%)</i>	<i>Category</i>
In my job, I strive to do my best.	4.68	1.10	96	Self
I know what is expected of me at work.	4.29	3.20	91	Self
I understand how my job contributes to the company's success.	4.23	3.10	86	Self
I am motivated to help this company be successful.	4.35	3.20	86	Self
My work group is committed to doing quality work.	4.24	5.70	85	Neutral
I am proud to say I work at this company.	4.36	5.10	84	Neutral
I take the initiative to learn new skills and develop myself.	4.10	1.10	82	Self
I am willing to go the extra mile for this company.	4.20	3.10	79	Self
I understand the performance measures used in my department.	3.76	4.70	78	Neutral
My manager creates a work environment that enables me to contribute.	3.90	8.50	72	Other

Note: Expert mean ratings range from 1 (self-focused) to 9 (other-focused).

positive). Moreover, the results of exploratory analyses in Study 2 suggested that employees glorify themselves for both self-enhancement and social desirability reasons.

Implications for the diagnosis of organizational problems

The most important implication is the possibility that descriptive differences between items (either

means or percent positive) will reflect the social desirability and self-enhancement aspects of the items. As a result, the identification of Organizational Strengths or Areas for Improvement may be inaccurate if based on absolute differences between items (i.e., highest and lowest values). Consequently, survey firms may want to assess the potential risk of self/other-focused items in their surveys and attempt to mitigate the impact. Survey firms have several options to address this problem. These can be discussed in the context of *survey items* and *survey reporting*. Organizations interested in minimizing this effect could focus on solutions from both aspects of the survey process.

Survey items. For firms developing new items, one option is to develop items that are neutral with respect to their self/other focus (e.g., avoiding “I” or “my manager” statements). The challenge with this approach is that the survey content may become quite limited in terms of what can be asked. In other words, organizations often want to know how employees feel about their specific manager rather than across all managers in the organization.

Another option is for practitioners to add a new step that includes an assessment for self-serving bias when testing novel survey items. This step could use expert raters to assess the self/other focus of the items with the intent to remove or modify items based on the extent of the self-serving bias. When completing a pilot survey, respondents could be instructed to think aloud when they respond to each item (as recommended by Sudman *et al.*, 1996), and these responses could be reviewed for biases. This process would be helpful for identifying and removing items that are overly influenced by the self-serving bias due to self-enhancement or social desirability.

Survey reporting. Consulting firms may not want to create novel items because of investments in benchmark and client history data. Therefore, it may be possible for them to create item norms that reflect the pattern of responses for self- vs other-focused items. In other words, if all items are compared with a normative database that takes self vs other focus into account, then the differences in responses between the items might be eliminated.

We note that many firms currently use normative benchmarks to help identify the Organizational Strengths and Areas for Improvement in comparison to other companies (Rogelberg *et al.*, 2002). The advantage of using these databases is that because

the content of the items (with respect to self/other focus) is held constant across the organizations in the database, the *relative* position of an organization within the database will *not* be influenced by the self/other focus issue. In contrast, interpreting the value of the item means based on the labels of a Likert scale (i.e., an absolute comparison in the terminology of generalizability theory) may be problematic due to the problems with the self/other focus of the items. Thus, we recommend diagnosing problems using item means *relative* to others in the industry rather than by interpreting the value of the item means *per se*.

Consulting firms with large databases use these resources to determine problems that are common across a range of organizations (or a range of organizations within a particular industry) by examining database item means. We suggest that this process may be problematic. Our findings suggest that items with a self-focus will have higher means in the database than items with an other-focus. Consequently, if consulting firms use their item databases to identify strengths and problems that are common to many organizations, then these findings may simply reflect the self/other focus of the items.

In the social psychology research literature, the issue of social desirability is a long-standing problem (e.g., Paulhus, 2002). As a result, social psychology researchers use social desirability scales to adjust participant responses to survey items (e.g., Paulhus, 1988, 1991). Perhaps including established measures of social desirability along with organizational surveys may help to identify employees that are likely to positively endorse self-focused items. Moreover, including measures of social desirability may also help to adjust employee responses to be more indicative of accurate (i.e., not socially desirable) responding. Finally, a simple solution could be for organizational survey reports to compare mean responses to items with the same self/other focus (e.g., only comparing self-oriented items with each other). Although this would increase reporting complexity somewhat, it would allow for more accurate interpretation.

On the basis of the above discussion, practitioners do have options with respect to improving the reporting accuracy of organizational surveys. Many of these options may, however, require increasing the complexity of survey development or reporting processes that may be resisted by consultants and their clients. Furthermore, the identification of this issue and its impact on survey



accuracy may create credibility problems for consulting firms advocating their use in organizational diagnoses. Finally, practitioners may not have access to the technical resources to implement the aforementioned solutions. As a result of these issues, collaboration between researchers and practitioners on addressing this problem is needed.

Limitations and future research directions

Despite the important practical and theoretical implications associated with the current paper, it is not without its limitations. First, the samples were obtained through consulting projects and may not generalize to other organizations or other situations with a different context for data collection (e.g., a harassment survey). In addition, information concerning age, gender, race, and other possibly important demographic variables were not available for our participants and thus, should be investigated in future research endeavors. Despite these limitations, the data were obtained from actual employees who were completing a relevant organizational survey. In addition, the use of two different types of surveys and organizations adds initial evidence supporting generalizability. Nevertheless, more work needs to be conducted in this area.

The absence of a measure of social desirability in the organizational surveys was a limitation of our research. As a result, it is not possible to confirm if respondents were actually responding in a socially desirable manner, beyond the interpretation of social desirability based on the expert ratings. Although a considerable amount of research has enhanced our understanding of the differential impact of social desirability on the relationships between organizational constructs (Podsakoff and Organ, 1986; Podsakoff *et al.*, 2003; Spector, 2006), few studies have focused on its impact on the level of survey responses. Future organizational survey projects could include a measure of social desirability and adjust employee scores for socially desirable responding.

We are also limited in the extent to which we can conclude that there was a causal impact of impression regulation on organizational survey responses. In other words, our investigation indicates that impression regulation is related to the pattern of responses to survey items; however, it does not state that impression regulation caused those variations in responses. Future research should apply the designs from the faking literature (e.g., Goffin and Woods, 1995; Viswesvaran and Ones, 1999; Donovan *et al.*, 2003) to organizational

surveys to determine the impact of conscious and unconscious faking (positive or negative) on survey responses. In addition, this research may help to explain if employees attempt to respond strategically to surveys to further their own goals (e.g. to secure more resources or to win awards for excellence). This research would help to confirm the causal nature of the relationships.

In general, more research is needed to extend the application of impression regulation research to the interpretation of organizational surveys. For example, would the effects found here, when employee responses were anonymous, be stronger if employee identities were paired with survey responses (and considered confidential)? Impression regulation theory suggests that self-glorification may be lower when surveys are confidential rather than anonymous.

Summary and conclusions

Organizational surveys will continue to be a core tool for organizations looking to assess many employee issues. To our knowledge, the current study is the first empirical research study to raise the issue of the self-serving bias in surveys influencing the diagnosis of organizational problems. The two studies presented in the current paper demonstrated that differences in employee responses across items may be explained, in part, by the self-glorification motive. This motive to self-glorify, in turn, may influence the interpretability of survey reports, particularly when these reports are based on the ranking of descriptive data. Practitioners may therefore want to consider the impact of self vs other item focus in their interpretation of survey results.

As Rogelberg and his colleagues (2002) pointed out in their review of the organizational survey method, practitioners in the past have not drastically changed their approach despite research indicating that important improvements could be made to the quality of information obtained through the survey method. We hope that our findings will motivate practitioners to explore this issue, as well as other related factors, which may then help to result in a more accurate diagnosis of organizational issues based on the results of organizational surveys.

Acknowledgements

We thank Donald Gibson and the three anonymous reviewers for their helpful comments with respect to this manuscript.

Notes

¹The first author served as the consultant on all four projects.

²In Study 2, the Areas for Improvement were identified by rank ordering the items based on the percentage of employees who responded with Strongly Disagree (1) or Disagree (2). In contrast, Organizational

Strengths were identified by rank ordering the items based on the percentage of employees who responded with Agree (4) or Strongly Agree (5). This is a common score conversion in reporting organizational survey results.

³The first author served as the consultant on this project.

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