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ORIGINAL PAPER

# Situational Strength as a Moderator of the Relationship Between Job Satisfaction and Job Performance: A Meta-Analytic Examination

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**Abstract**
*Purpose* The purpose of the current meta-analysis was to test the hypothesis that situational strength attenuates the positive relationship between job satisfaction and job performance.
*Design/methodology/approach* Using meta-analytic data ($k = 101$, $N = 19{,}494$) and regression analysis, we examined situational strength's association with the satisfaction–performance relationship.
*Findings* As hypothesized, the constraints dimension of situational strength was negatively associated with the magnitude of the job satisfaction–job performance relationship. Unexpectedly, the consequences dimension of situational strength failed to produce a similar effect.
*Implications* The current study provides insight into when job satisfaction and job performance are most likely and least likely to be related to each other. Thus, it has important theoretical implications for job attitude researchers and it has applied implications for practitioners wishing to increase job performance by improving employee satisfaction.
*Originality/value* The current study is the first large-scale examination of situational strength as a moderator of the relationship between job satisfaction and job performance.

**Keywords** Job satisfaction · Job performance · Situational strength · Meta-analysis

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The relationship between job satisfaction and job performance has garnered scholarly attention since the early history of organizational psychology (Wright et al. 2007). As a reflection of its importance, the satisfaction–performance relationship has even been referred to as the "Holy Grail" of organizational research (Landy 1989) and has inspired scores of primary studies, as well as numerous qualitative (Locke 1970; Vroom 1964) and quantitative reviews (Iaffaldano and Muchinsky 1985; Judge et al. 2001).

In the most comprehensive meta-analysis to date, Judge et al. (2001) found a moderate positive relationship between satisfaction and performance ($\rho = .30$, $k = 312$, $N = 54{,}471$). It is of particular note, however, that Judge et al. concluded that the strength of this relationship varied substantially across samples and that this variability was likely due to substantive sources, as opposed to statistical artifacts.[1] Thus, it is critical for researchers to test potential moderators in order to gain a more accurate understanding of the satisfaction–performance relationship. The process of moderator estimation, however, is difficult because moderators can range from relatively mundane variables (e.g., methodological characteristics) to more substantive factors involving the socio-political context of modern organizational environments. The present study focuses on the latter (while not neglecting the former) by meta-analytically examining the moderating effects of situational strength, which has been argued to be among the most

[1] The 80 % credibility interval reported by Judge et al. (2001) ranged from .03 to .57, which they characterized as "relatively wide" (p. 387). Furthermore, they reported that statistical artifacts could account for only about 25 % of the variance in effect sizes across studies and that the $Q$ statistic was statistically significant. Together, these findings suggest the existence of substantive moderators of the satisfaction–performance relationship.

important and psychologically meaningful ways to conceptualize the behaviorally relevant forces of modern organizational contexts (e.g., Johns 2006; Meyer and Dalal 2009; Weiss and Adler 1984). Building on prior research examining situational strength as a moderator of the conscientiousness–performance relationship (Meyer et al. 2009), the following section provides a theoretical justification for situational strength as a key moderator of the satisfaction–performance relationship.

## Situational Strength as a Moderator of the Satisfaction–Performance Relationship

Situational strength reflects the degree to which a situation contains cues that make it obvious how one is expected to behave, the degree to which the situation limits one's choice of behavior, and the degree to which the situation includes incentives that are relevant to these behaviors (for reviews of the situational strength concept, see Cooper and Withey 2009; Meyer et al. 2010; Mischel 1973, 1977). Thus, within a strong situation, it is clear how one should behave, there are many constraints on one's behavior, and there are often consequences for not engaging in the prescribed behavior. On the other hand, within a weak situation, there is ambiguity regarding how one should behave, there are few constraints on behavior, and there are generally few consequences associated with any particular behavior.

The concept of situational strength manifests itself in several different ways within organizations. For example, working under an incentive system in which employees are rewarded for their output produces a stronger situation than does working in the absence of an incentive system, because effective incentive systems encourage those behaviors that are most likely to result in intended outcomes. Having a directive supervisor who readily dispenses rewards and punishments produces a stronger situation than does having a laissez-faire supervisor who leaves employees to their own devices when determining what to do and how to do it. Working in an occupation with well-established operating procedures (e.g., accountants, assembly line workers) presents a stronger situation than does working in an occupation with more flexible operating procedures (e.g., artists, tour guides) because the latter provides employees with greater leeway when deciding how to behave.

The central theme found within the situational strength literature is that the criterion-related validity of personal characteristics will be attenuated in strong situations because the behavioral impact of relevant individual differences is muted by situational influences (Meyer and Dalal 2009; Mischel 1977). Traditionally, however, discussions in this area have been limited to situational strength's effects on personality–outcome relationships (Meyer et al. 2010; Mischel 1973, 1977; Snyder and Ickes 1985). This is a critical oversight, however, because research has found that attitudes only sometimes predict behavior, which suggests that "…we need to treat the strength of the attitude-behavior relation as we would any other dependent variable and determine what factors affect it" (Fazio and Zanna 1981, p. 165). As such, one of the primary contributions of the present study is that it is among the first to help organizational scientists better define the substantive conditions under which job attitudes do and do not predict important workplace behaviors.

Before outlining specific hypotheses about the potential moderating effects of situational strength on the satisfaction–performance relationship, it is important to point out that, despite its intuitive appeal, most studies have used ad hoc conceptualizations of situational strength (e.g., Barrick and Mount 1993; Beaty et al. 2001). In other words, in the absence of a theoretical framework for guiding the measurement of situational strength, operationalizations have varied greatly from study to study with many researchers opting to use a measurement approach unique to their own research (see Cooper and Withey [2009]). In an effort to maintain consistency with recent studies, we draw from the work of Meyer et al. (2009), who distinguished between two dimensions of situational strength: constraints and consequences.

The constraints facet of situational strength is defined as "the amount of behavioral/decisional restriction placed on an employee or, conversely, as the amount of autonomy or latitude an employee experiences" (Meyer et al. 2009, p. 1080). When a high level of constraints is present, external forces restrict the number of behavioral alternatives that employees are able to demonstrate, thereby reducing individual discretion and making performance relatively uniform across employees. However, when constraints are absent, employees are freer to engage in behaviors that are consistent with their attitudes because more alternatives are available to them, thereby leading to higher levels of performance variability.[2]

[2] We should note that the constraints construct is essentially reverse-scored autonomy. In the current paper, however, we opted to use the term "constraints" because we preferred high scores to represent the presence of a strong situation. In supplementary analyses, using all available job titles from the O*Net database, we found that the Meyer et al. (2009) O*NET measure of constraints used in the current study correlated $-.72$ ($p < .01$; $N = 882$) with an O*NET measure of autonomy consisting of the items "scheduling work and activities," "developing objectives and strategies," and "organizing, planning, and prioritizing work" (Cronbach's Alpha for the autonomy scale = .92).

**Hypothesis 1** The relationship between job satisfaction and job performance will be stronger among employees in low-constraints jobs compared to those in high-constraints jobs.

The consequences facet of situational strength, on the other hand, reflects "the presence of contingencies between one's decisions or behaviors and the outcomes accruing to oneself, other employees, the organization as a whole, and/or external stakeholders" (Meyer et al. 2009, p. 1081). Thus, when consequences are high, performance is predicted to be relatively uniform because employees are more likely to engage in those behaviors that reduce the probability that negative outcomes will occur and/or those behaviors that increase the probability that positive outcomes will occur. When consequences are low, however, employees are more likely to engage in behaviors that are more consistent with their own unique proclivities.

**Hypothesis 2** The relationship between job satisfaction and job performance will be stronger among employees in low-consequences jobs compared to those in high-consequences jobs.

Following Meyer et al. (2009), we also computed a composite situational strength score using the average of the constraints and consequences subdimensions. Although the two dimensions of situational strength are likely to be weakly correlated with each other (see Meyer et al. 2009), constraints and consequences can be conceptualized as *formative* indicators of situational strength, thus justifying the inclusion of the composite score (see MacKenzie et al. 2005). As an extension of the first two hypotheses, we predict that composite situational strength will moderate the satisfaction–performance relationship.

**Hypothesis 3** The relationship between job satisfaction and job performance will be stronger among employees in low-composite strength jobs compared to those in high-composite strength jobs.

## Method

### Literature Review

We located studies included in the current meta-analysis using two search strategies. First, we targeted the studies cited in the references section of the Judge et al. (2001) meta-analysis, which provided comprehensive coverage of relevant research from 1967 through 1999. Because that meta-analysis did not include primary studies published after 1999, we also located articles published between 2000 and 2011 by conducting a PsycINFO search for the terms "job satisfaction" and "job performance." We included only published articles in our analyses; unpublished theses and dissertations were thus excluded.

### Criteria for Inclusion

Each study retained for meta-analysis satisfied three inclusion criteria. First, each included a correlation between global job satisfaction and global job performance. In instances where only facet-level variables were assessed, a composite of facets was computed (see Hunter and Schmidt 2004). Second, each sample included only employed participants who (within a given sample) had the same occupation. Because the primary studies were coded for sample-level situational strength using the job titles reported in each study, it was impractical to include samples that used a mixture of occupations (see Meyer et al. 2009). For this reason, we excluded several studies that were included in the Judge et al. meta-analysis. Finally, studies that *manipulated* situational strength (e.g., London and Klimoski 1975) were also excluded.

### Coding Procedure

#### *Coding Information from the Primary Studies*

Each study that met the above criteria was coded for participant job title, sample size, and the observed correlation between job satisfaction and job performance. The job titles reported in each primary study were used to locate the corresponding job title record in the U.S. Department of Labor's Occupational Information Network (O*NET). If the O*NET occupation equivalent could not be determined from the article and we could not obtain it from the authors, then the study was excluded from our meta-analysis. All together, 58 of the 312 independent samples from Judge et al. (2001) and 43 of the 773 search results from PsycINFO satisfied all of the inclusion criteria. Thus, this method yielded a final total of 101 independent samples ($N = 19{,}494$ participants) that were used in the current analyses. Of the samples from the Judge et al. (2001) meta-analysis, 58 % (183) studies were excluded because they contained a heterogeneous occupational sample, 14 % (44) were excluded because they could not be found (e.g., unpublished dissertation), 4 % (14) were excluded because they contained an experimental manipulation of situational strength, and 4 % (13) were excluded because they reported a job title that could not be matched with any job title listed on O*NET. It is more difficult to get exact numbers for the percentage of the PsycINFO results that did not meet the criteria. Of the 730 studies that did not meet the above criteria, approximately 35 % did not include a correlation between job satisfaction and job performance, about 40 % did not use a homogeneous job sample,

approximately 20 % did not have O*NET occupational match, and about 5 % were excluded for other reasons (e.g., experimentally manipulated situational strength).

The coding process was conducted in three phases. During the first phase, one rater (the second author) recorded the basic quantitative information from each article, including the performance–satisfaction correlation, sample size, and reliabilities. In the second phase, two raters (the second and fourth authors) independently examined each article and recorded the job title or a detailed description as reported in each article. The raters then searched O*NET to determine which occupational unit best matched the description in each article. The raters had 97 % agreement in this phase (agreement on 98 of 101 job titles). The raters resolved any disagreements through discussion.

During the third phase, the two raters independently transcribed the numerical estimates for each of the O*NET items that composed our variables. The raters had an average of 97.94 % convergence across all of the items. All differences were due to typographical errors, which were corrected by comparing the disagreements to the original O*NET item. The raters also examined each article and recorded research design type (e.g., cross-sectional vs. longitudinal), type of satisfaction measure (global vs. facet), and type of performance measure (subjective vs. objective). The raters had an average of 92.18 % convergence across all of the qualitative information. All disagreements were resolved through discussion.

### *Assessing Situational Strength*

We computed the situational strength indices for each occupation using items from the "Occupational Requirements" section of O*NET. Each O*NET item utilized here was designed to reflect the nature of work (rather than the characteristics of workers) and yielded a numeric score (ranging from 0 to 100) representing the extent to which the characteristic in question is generally present for each job. We computed estimates for each of the variables by calculating the average of these numeric scores.

It is important to note that the same 14 O*NET items (seven per facet) used to operationalize situational strength in the Meyer et al. (2009) meta-analysis were also utilized here. Meyer et al. selected these items based on a rational analysis of all of the items contained within the O*NET "Occupational Requirements" section (a broad category of the O*NET content model that represents characteristics of the work itself). Within this category, the first two authors of the Meyer et al. paper jointly rated whether each item was relevant to situational strength. Only those items that were judged "highly relevant" were retained. The content and anchors of the selected items were examined to assess whether high or low scores were indicative of stronger or weaker situations. Additional details (as well as a complete list and description of all 14 items) are available in the Appendix of the Meyer et al. paper.

Example O*NET items used to assess constraints included "structured versus unstructured work," "freedom to make decisions," and "time pressure." Example consequences items included "responsible for others' health and safety," "consequences of error," and "impact of decisions on coworkers." The internal consistency reliability for constraints and consequences was .65 and .80, respectively. We calculated the composite situational strength score by averaging the constraints and consequences scales (internal consistency reliability = .62).

### *Assessing Control Variables*

Several potential moderator variables have been examined in past studies of the satisfaction–performance relationship. Judge et al. (2001), for example, tested whether this relationship varied as a function of type of performance measure (subjective or objective), type of satisfaction measure (global or facet), and research design (cross-sectional or longitudinal). Thus, to remain consistent with previous practices and to examine the unique moderating effects of situational strength, we also included these control variables. Two raters independently coded for objective/subjective performance measures, global/facet satisfaction measures, and research design type (see the above description of this process).

## Analytic Procedure

Following Meyer et al. (2009), we regressed the *uncorrected*[3] satisfaction–performance correlation value from each study separately onto both constraints and consequences using weighted least squares (WLS) regression. WLS has several advantages over other moderator estimation techniques. First, it is superior to meta-analytic approaches that require the moderator(s) in question to be categorical variables. Given that situational strength is a naturally continuous variable, various forms of subgroup analysis would have required that situational strength be artificially polychotomized, thereby resulting in a functional loss of information. Second, WLS has been shown to be largely unaffected by multicollinearity and heteroscedasticity. Third, it weights the relative effects of each primary study by the number of participants utilized therein,

[3] Note that these correlations did not correct for *measurement error*. They did, however, correct for *sampling error* (i.e., because sampling error is controlled by the simple act of averaging correlations across primary datasets; see Hunter and Schmidt 2004).

meaning that studies with more participants have a greater impact on the observed results. All together these characteristics make WLS one of the most accurate statistical procedures for examining the effects of moderators via meta-analysis (Steel et al. 2002). Because SPSS incorrectly calculates meta-analytic WLS regression significance tests (Lipsey and Wilson 2001), we used the SPSS add-on ZumaStat (Jaccard 2000).

## Results

### Initial Analyses of Mean Effect Size

In our initial analyses, we computed sample-weighted mean uncorrected ($r$) and corrected correlations ($\rho$) between job satisfaction and job performance using the meta-analytic methods described by Hunter and Schmidt (2004). Our primary reason for computing $\rho$ was to examine the similarity between the current findings and those of Judge et al. (2001) and to provide a summary of construct-level satisfaction–performance relationship that was unattenuated by measurement error. When computing $\rho$, we corrected for unreliability in both predictor and criterion variables. When possible, we corrected each study correlation individually using the reliability estimates reported in the primary study. In instances where reliabilities were not reported, we used artifact distributions. Following the approach used by Judge et al. (2001), the meta-analytic estimate from Wanous et al. (1997) was imputed for the reliability of single-item satisfaction measures (only five samples used single-item satisfaction measures). The meta-analytic estimate from Viswesvaran et al. (1996) was imputed for the internal consistency reliability of supervisor ratings of performance (reliability estimate = .75).

As shown in Table 1, the sample-weighted mean $r$ was .20 and the sample-weighted mean $\rho$ was .27 ($k = 101$, $N = 19{,}494$). The 95 % confidence intervals within both the current study (.17, .22) and within the Judge et al. meta-analysis (.16, .19) did not overlap with .00, suggesting that the satisfaction–performance relationship is statistically significant. It is of note that our observed results are virtually identical to the results reported by Judge et al. (2001), suggesting that the use of different samples in the current meta-analysis and the Judge et al. meta-analysis did not meaningfully influence our results. It is also of note that the $Q$ statistics for both the current study ($Q = 1{,}582.65$, $p < .01$) and for Judge et al. ($Q = 1{,}240.51$, $p < .01$) were statistically significant, thereby suggesting that moderators likely influence the satisfaction–performance relationship. Additional evidence of moderation is provided by the relatively wide 80 % credibility intervals found within both the current study (.04, .53) and within the Judge et al. meta-analysis (.03, .57).

The descriptive statistics and correlations for the constraints, consequences, composite situational strength, and the control variables are reported in Tables 2 and 3. Each situational strength dimension was computed by averaging the numerical estimates from the seven associated O*NET items (see Meyer et al. 2009). The average constraints rating in the current sample was 38.14 ($SD = 7.10$), while the average consequences rating was 57.90 ($SD = 9.91$). These estimates are very close to those found by Meyer et al. (2009), indicating that the occupations represented in the current meta-analysis were not substantially different from those included in their meta-analysis. Also, similar to the results reported by Meyer and colleagues, we found that the constraints and consequences facets were virtually uncorrelated ($r = -.01$).

### Occupational Examples

Our analyses utilized samples from a wide variety of occupations. Among the strongest with regard to the constraints facet were "Rolling Machine Setters, Operators, and Tenders, Metal and Plastic" (mean constraints = 50.85) and "Meat, Poultry, and Fish Cutters and Trimmers" (mean constraints = 60.57). Both of these jobs fit the conceptualization of high-constraints jobs, as they allow little room for individual discretion and provide low autonomy. For example, according to O*NET, the characteristics most associated with these two jobs are strict deadlines (e.g., time pressure) and the pace of the work is

**Table 1** Meta-analytic correlations between job satisfaction and job performance

| Current study | | | | | | | Judge et al. (2001) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *K* | *N* | Mean *r* | Mean $\rho$ | *Q* | CV | CI | *K* | *N* | Mean *r* | Mean $\rho$ | *Q* | CV | CI |
| 101 | 19,494 | .20 | .27 | 1,582.65* | .04, .53 | .17, .22 | 312 | 54,471 | .18 | .30 | 1,240.51* | .03, .57 | .16, .19 |

*k* number of samples, *N* total sample size, Mean *r* average weighted correlation coefficient, Mean $\rho$ average weighted correlation coefficient corrected for unreliability in both the predictor and criterion, *Q* test for homogeneity in true scores across studies, *CV* 80 % credibility interval, *CI* 95 % confidence interval. We recalculated the CI from Judge et al. (2001) using Mean *r* and *SD r* because those authors made their calculations using Mean $\rho$ and *SD* $\rho$. * $p < .01$

**Table 2** Descriptive data for the variables in the study

| | Current study | | | Meyer et al. (2009) | |
|---|---|---|---|---|---|
| | Mean | Range | *SD* | Mean | Range |
| Constraints | 38.14 | 26.29–60.57 | 7.10 | 40.07 | 20.21–59.04 |
| Consequences | 57.90 | 28.57–88.43 | 9.91 | 58.91 | 43.04–85.21 |
| Composite situational strength | 47.97 | 27.63–61.00 | 6.14 | 49.49 | 38.48–61.70 |
| Subjective vs. objective performance | 0.15 | 0.00–1.00 | 0.36 | NA | NA |
| Global vs. facet satisfaction | 0.30 | 0.00–1.00 | 0.46 | NA | NA |
| Cross-sectional vs. longitudinal design | 0.18 | 0.00–1.00 | 0.38 | NA | NA |

The potential range for each O*NET variable is 0–100. For type of performance measure, subjective = 0 and objective = 1. For type of satisfaction measure, global = 0 and facet = 1. For research design, cross-sectional = 0 and longitudinal = 1. *NA* not applicable

**Table 3** Uncorrected correlations for all variables in the study

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| 1. Constraints | (.65) | | | | | | |
| 2. Consequences | −.01 | (.80) | | | | | |
| 3. Composite | .57** | .82** | (.62) | | | | |
| 4. Objective vs. subjective measure | −.09 | −.18 | −.20* | – | | | |
| 5. Global vs. facet satisfaction | −.12 | .10 | .02 | .09 | – | | |
| 6. Cross-sectional vs. longitudinal | .11 | −.11 | −.02 | .24* | .09 | – | |
| 7. Satisfaction–performance correlation (uncorrected) | −.34** | −.01 | −.21* | .14 | −.07 | .02 | – |

$N = 19{,}494$. * $p < .05$, ** $p < .01$. Cronbach's Alphas are in parentheses. For type of performance measure, subjective = 0 and objective = 1. For type of satisfaction measure, global = 0 and facet = 1. For research design, cross-sectional = 0 and longitudinal = 1

largely determined by the machines that the workers use, while the characteristics least associated with these jobs are analyzing information to solve problems and thinking creatively. In contrast, some of the weakest job titles in terms of constraints were "Chemical Engineers" (mean constraints = 27.29) and "Police Detectives" (mean constraints = 28.00). These occupations have relatively few external factors that limit personal discretion on the job. According to O*NET, the characteristics most associated with these jobs are analyzing information to solve a problem, thinking creatively, and in general a great deal of freedom to accomplish job goals.

**Table 4** Standardized zero-order regression coefficients for each predictor variable

| Variable | β | β, corrected |
|---|---|---|
| Constraints | −0.30** | −0.38** |
| Consequences | 0.06 | 0.05 |
| Composite situational strength | −0.15** | −0.16** |
| Objective vs. subjective performance | 0.03 | 0.12** |
| Global vs. facet satisfaction | 0.02 | 0.12** |
| Cross-sectional vs. longitudinal design | 0.03 | 0.04 |

$k = 101$, $N = 19{,}494$. ** $p < .01$. $\beta$ = Standardized weighted least squares coefficient. All coefficients computed with uncorrected correlations. Only zero-order relationships are reported. For the unique effects of each predictor, see Table 5

**Table 5** Standardized regression coefficients for all variables analyzed simultaneously

| Variable | *β* | *β*, corrected |
|---|---|---|
| Objective vs. subjective performance | 0.11* | 0.03 |
| Global vs. facet satisfaction | 0.14* | 0.04 |
| Cross-sectional vs. longitudinal data | 0.05 | 0.11** |
| Constraints | −0.26** | −0.38** |
| Objective vs. subjective performance | 0.03 | 0.11** |
| Global vs. facet satisfaction | 0.01 | 0.12** |
| Cross-sectional vs. longitudinal data | 0.02 | 0.03 |
| Consequences | 0.01 | 0.06 |
| Objective vs. subjective performance | 0.00 | 0.08* |
| Global vs. facet satisfaction | −0.01 | 0.10** |
| Cross-sectional vs. longitudinal data | 0.03 | 0.04 |
| Composite situational strength | −0.19** | −0.16** |

$k = 101$, $N = 19{,}494$. * $p < .05$, ** $p < .01$. $\beta$ = Standardized weighted least squares coefficient

For the consequences facet, the strongest occupations were "Civil Engineers" (mean consequences = 67.00) and "First-Line Supervisors/Managers of Production and Operating Workers" (mean consequences = 75.71). O*NET characterizes both of these occupations as having a high responsibility for both the safety and successful work outcomes of other workers. Conversely, "Customer Service Representatives" (mean consequences = 28.57) and "Door-to-Door Sales Workers" (mean consequences = 29.00) were occupations with few consequences associated with either success or failure at the job.

## Testing the Moderating Effects of Situational Strength

To test our hypotheses, the *uncorrected* correlations between job satisfaction and job performance were regressed onto each facet of situational strength. As

recommended by Meyer et al. (2009), we used the uncorrected relationship for the dependent variable so that observed effects would best reflect those that are likely to be found in practice. All regression analyses were rerun using corrected satisfaction–performance correlations in which job satisfaction was corrected using internal consistency reliability, and supervisor ratings of performance were corrected using the Viswesvaran et al. (1996) estimate of the internal consistency reliability of supervisor ratings of performance (see Tables 4, 5). These analyses yielded identical conclusions to the moderator analyses using uncorrected correlations.

Consistent with Hypothesis 1, we found that constraints moderated the satisfaction–performance relationship both when the control variables were excluded ($\beta = -.30$, $p < .01$; see Table 4) and when they were included ($\beta = -.26$, $p < .01$; see Table 5). Consistent with extant theory, these findings indicate that the satisfaction–performance relationship was weaker in stronger situations and stronger in weak situations.

Hypothesis 2, however, was not supported. Specifically, consequences did not moderate the satisfaction–performance relationship when the control variables were excluded ($\beta = .06$, *ns*; see Table 4) nor did it moderate the satisfaction–performance relationship when the control variables were included ($\beta = .01$, *ns*; see Table 5).

Finally, we found full support for Hypothesis 3. Specifically, composite situational strength moderated the satisfaction–performance relationship both when the control variables were excluded ($\beta = -.15$, $p < .01$; see Table 4) and when they were included ($\beta = -.19$, $p < .01$; see Table 5). Again, consistent with existing theory, the satisfaction–performance relationship became weaker as composite situational strength increased.

### Practical Implications of the Moderating Effects of Situational Strength

The practical effects of these results are that "strong" occupations tend to have lower predicted satisfaction–performance correlations than "weak" occupations. For example, a "strong" occupation such as "First-Line Supervisors/Managers of Production and Operating Workers" (constraints = 43.13, consequences = 78.00) has relatively low *predicted* satisfaction–performance correlations ($r'_{\text{constraints}} = .16$, $r'_{\text{consequences}} = .16$) as well as a relatively lower *actual* satisfaction–performance correlation ($r = .19$). On the other hand, a weak occupation such as "Door-To-Door Sales Workers, News and Street Vendors, and Related Workers" (constraints = 26.28, consequences = 29.00) has relatively high predicted satisfaction–performance correlations ($r'_{\text{constraints}} = .27$, $r'_{\text{consequences}} = .26$) as well as relatively higher actual correlations ($r = .31$).

## Discussion

The relationship between job satisfaction and job performance has attracted considerable research attention (Judge et al. 2001). Although satisfaction has generally been found to be positively related to performance, the magnitude of this relationship has been found to vary considerably across studies. In the current study, we argue that situational strength is a likely moderator of the satisfaction–performance relationship.

Using meta-analytic data, we found that the constraints dimension of situational strength from the Meyer et al. (2010) framework and a composite representing both constraints and consequences yielded significant negative zero-order relationships with the job satisfaction–job performance relationship, meaning that satisfaction and performance were more strongly related to each other in weak situations than in strong situations. These findings are consistent with the main hypothesis of the situational strength literature (Cooper and Withey 2009; Meyer and Dalal 2009; Meyer et al. 2010; Mischel 1973, 1977), though the null findings for consequences were unexpected. Perhaps the presence of severe consequences reduces the affective state of those employees who would ordinarily be satisfied with their work, thereby encouraging them to behave in ways that are similar to those who are chronically dissatisfied. Thus, the relationship between situational strength and behavior may not be not as simple as the original thinking on this topic has suggested (see Meyer et al., in press).

### Practical and Theoretical Implications

From a practical perspective, these results suggest that those who are interested in maximizing performance (e.g., managers) should recognize that satisfied employees are more likely to be productive employees within situations in which employees have a fair amount of discretion in deciding how to perform their work. Within situations where employees lack such discretion, satisfaction is less likely to be related to performance. This is not to say that job satisfaction is an unimportant end in and of itself (the present authors believe that it is), but rather suggests that there may be conditions under which high job performance may be achieved in the absence of high levels of job satisfaction. Given recent trends toward relatively unconstrained work environments (e.g., autonomous work groups, telecommuting), these findings also highlight the

need for organizations to be especially cognizant of their employees' levels of job satisfaction under these conditions because it is within such instances that satisfaction will be most strongly correlated with performance.

Of course, the causal direction of the link between satisfaction and performance remains uncertain (Judge et al. 2001). Although the current authors have implied a causal path from satisfaction to performance, it is conceptually possible that performance has a causal effect on satisfaction (Lawler and Porter 1967). A causal path from performance to satisfaction may occur because performance theoretically results in tangible rewards (e.g., promotions) and non-tangible rewards (e.g., acknowledgment from coworkers), which in turn result in increased satisfaction. Thus, it would be useful to utilize longitudinal designs in future research to test the causal direction of the present effect. However, because situational strength influences between-person variability in performance, the presence of a strong situation would attenuate both causal paths from satisfaction to performance and from performance to satisfaction.

## Future Research

Future research should examine the mechanisms that produced the moderating effects of situational strength observed in the current study. As discussed previously, strong situations are expected to attenuate the satisfaction–performance relationship by minimizing between-person variability in job performance by encouraging behaviors that certain employees are unlikely to engage in when left to their own devices. Future research should directly test this prediction by examining the effects of situational strength on between-person variability in employee behavior.

Future research may also benefit from examining situational strength dimensions other than constraints and consequences. Indeed, Meyer et al. (2010) identified two additional dimensions that we did not code for in the current meta-analysis: clarity and consistency. Clarity is defined as "… the extent to which cues regarding work-related responsibilities or requirements are available and easy to understand" (p. 125). As an illustration of a high level of clarity, imagine an organization with an attendance policy that unambiguously warns employees that they should "arrive at work no later than 8:00." This is in contrast to an organization with a low clarity attendance policy, such as one that warns employees that they should not "arrive significantly later than the 8:00 start time." Consistency, on the other hand, is defined as "…the extent to which cues regarding work-related responsibilities or requirements are compatible with each other" (p. 126). As an example of high-consistency situation, a worker may be told by each of his or her superiors that the company values product quality over quantity. At the other extreme, an employee in a low-consistency situation may receive inconsistent messages across different managers about the relative importance of product quality and quantity.

We did not code for clarity and consistency because they are less likely to reside at the occupational level of analysis and, as a result, relevant variables are not available within O*NET. As Meyer et al. (2010) suggest, differences in organizational culture, organizational policies, or leader behavior may cause levels of clarity and consistency to vary from one organization or work team to the next. As a result, operationalizations of situational strength at more proximal levels (e.g., organization, team) are likely to be more valid for clarity and consistency than those that occur at the occupation level.

Finally, future research should examine the effects of situational strength on the satisfaction–performance relationship at more macro levels of analysis. We predict, for instance, that strong situations—relative to weak situations—would produce a greater degree of consistency in job attitudes across individuals within a given work setting. The degree of between-worker attitude consistency, in turn, would likely moderate the relationship between unit-level job attitudes and unit-level performance, such that the attitude–performance relationship *strengthens* as between-worker consistency increases (note that a very similar idea appears in the climate strength literature; see Schneider et al. 2002). Interestingly, high levels of between-worker attitude consistency would be expected to *attenuate* the relationships between individual-level attitudes and performance *within* a given work unit (i.e., due to the effects of range restriction at the individual level).

## Limitations

We should note a few limitations of the current research. First, the processes we used to code for the constraints and consequences dimensions of situational strength are imprecise and could thus benefit from additional validation. We should note, however, that both the Meyer et al. (2009) and the current study found that the situational strength scores derived from the current coding approach generally moderated conscientiousness–performance and satisfaction–performance relationships, thus providing evidence of construct validity.

Second, we used the job titles listed in our sample of primary studies to code for situational strength. Although past research has successfully used this technique (Meyer et al. 2009), we acknowledge that employees who hold the same job title will not necessarily be exposed to precisely the same level of situational strength. Because situational strength was thus assessed with some degree of

measurement error, the current study may actually *underestimate* the extent to which situational strength moderates the satisfaction–performance relationship. As a result, the current analyses likely represent a conservative test of our hypotheses.

A related limitation was our inability to assess potential operationalizations of situational strength that cannot be inferred from one's job title (e.g., because they are idiosyncratic to a particular work setting). The climate of one's work group, for example, could represent a very strong or weak situation (Schneider et al. 2002). Similarly, the actions of one's leader could contribute to either a strong situation (e.g., when a leader take great pains to clarify subordinate role expectations) or a weak situation (e.g., when a leader uses a laissez-faire approach) for subordinates. The current study could not account for these manifestations of situational strength because they vary considerably within a given job title.

## Summary

The current research found that satisfaction was more weakly related to performance when the constraints subdimension of situational strength was high rather than low. This finding suggests that situational strength is a key variable in helping researchers better understand when job attitudes and job performance are most likely to be related to each other.

## Appendix

See Appendix Table 6

**Table 6** Summary of studies in job satisfaction–job performance meta-analysis

| Study | $N$ | $r$ | $r_{jp}$ | $r_{js}$ | $\rho$ | O*NET occupation number | Const. | Consq. | Comp. | Obj v. subj performance | Globe v. facet satisfaction | Design |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Abdel-Halim (1980) | 123 | 0.22 | 0.52[a] | 0.75 | 0.35 | 41-4011.00 | 28.14 | 49.71 | 38.93 | 0 | 1 | 0 |
| Adkins (1995) | 89 | 0.10 | 0.52[a] | 0.56 | 0.19 | 31-1013.00 | 36.00 | 64.00 | 50.00 | 0 | 0 | 0 |
| Agarwal et al. (2009) | 328 | 0.65 | 0.52[a] | 0.65 | 1.11 | 41-4011.00 | 29.50 | 49.71 | 39.61 | 0 | 0 | 0 |
| Agarwal et al. (2009) | 93 | 0.47 | 0.52[a] | 0.65 | 0.81 | 11-2022.00 | 28.14 | 56.14 | 42.14 | 0 | 0 | 0 |
| Alexander et al. (1989) | 130 | 0.23 | 0.47 | 0.75 | 0.39 | 21-1015.00 | 46.43 | 63.29 | 54.86 | 1 | 0 | 0 |
| Babakus et al. (2003) | 180 | 0.26 | 0.82 | 0.84 | 0.31 | 43-3071.00 | 48.14 | 62.71 | 55.43 | 0 | 0 | 0 |
| Bagozzi (1978) | 38 | 0.45 | 0.70[b] | 0.78 | 0.71 | 41-4012.00 | 37.00 | 49.57 | 43.29 | 1 | 0 | 1 |
| Bagozzi (1978) | 123 | 0.30 | 0.70[b] | 0.77 | 0.47 | 41-4012.00 | 37.00 | 49.57 | 43.29 | 1 | 0 | 1 |
| Berger-Gross and Kraut (1984) | 887 | 0.22 | 0.52[a] | 0.75 | 0.35 | 51-1011.00 | 44.00 | 78.00 | 61.00 | 0 | 0 | 0 |
| Bernardin (1979) | 53 | 0.29 | 0.62 | 0.58 | 0.48 | 33-3051.01 | 35.57 | 73.00 | 54.29 | 0 | 1 | 0 |
| Bhagat (1982) | 104 | 0.35 | 0.52[a] | 0.94 | 0.50 | 41-1011.00 | 37.00 | 66.57 | 51.79 | 0 | 0 | 0 |
| Bhuian et al. (2005) | 203 | 0.23 | 0.52[a] | 0.77[c] | 0.36 | 41-4011.00 | 28.14 | 49.71 | 38.93 | 0 | 0 | 0 |
| Birnbaum and Somers (1993) | 142 | −0.03 | 0.52[a] | 0.85 | −0.05 | 29-1141.00 | 39.71 | 73.14 | 56.43 | 0 | 0 | 0 |
| Bluen et al. (1990) | 114 | 0.2 | 0.70[b] | 0.88 | 0.30 | 41-3021.00 | 32.86 | 57.43 | 45.14 | 1 | 0 | 0 |
| Bond and Bunce (2001) | 97 | 0.08 | 0.70[b] | 0.77[c] | 0.11 | 43-3031.00 | 44.57 | 55.29 | 49.93 | 0 | 0 | 1 |
| Brashear et al. (2003) | 353 | 0.2 | 0.85 | 0.89 | 0.23 | 41-2031.00 | 33.86 | 49.57 | 41.71 | 0 | 0 | 0 |
| Breaugh (1981) | 112 | 0.16 | 0.52[a] | 0.72 | 0.26 | 19-1021.00 | 37.14 | 51.43 | 44.29 | 0 | 1 | 0 |
| Carmeli (2003) | 98 | 0.45 | 0.87 | 0.68 | 0.59 | 11-1011.00 | 28.86 | 88.43 | 58.64 | 0 | 0 | 0 |
| Claessens et al. (2004) | 70 | 0.12 | 0.76 | 0.77[c] | 0.16 | 17-2061.00 | 34.00 | 62.00 | 48.00 | 0 | 0 | 1 |

**Table 6** continued

| Study | $N$ | $r$ | $r_{jp}$ | $r_{js}$ | $\rho$ | O*NET occupation number | Const. | Consq. | Comp. | Obj v. subj performance | Globe v. facet satisfaction | Design |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Colarelli et al. (1987) | 280 | 0.18 | 0.52[a] | 0.75 | 0.29 | 13-2011.01 | 39.43 | 56.57 | 48.00 | 0 | 0 | 0 |
| Dubinski and Hartley (1986) | 162 | 0.17 | 0.70[b] | 0.73 | 0.28 | 41-2031.00 | 34.00 | 49.57 | 41.79 | 1 | 0 | 0 |
| Erdogan and Enders (2007) | 210 | 0.05 | 0.52[a] | 0.89 | 0.07 | 41-2011.00 | 54.57 | 49.29 | 51.93 | 0 | 0 | 0 |
| Farmer et al. (2003) | 271 | 0.48 | 0.52[a] | 0.78 | 0.75 | 33-3021.01 | 28.00 | 74.86 | 51.43 | 0 | 1 | 0 |
| Fine and Nevo (2008) | 156 | −0.04 | 0.52[a] | 0.73 | −0.06 | 43-4051.00 | 46.71 | 51.29 | 49.00 | 0 | 0 | 0 |
| Fox et al. (1993) | 136 | 0.06 | 0.52[a] | 0.66 | 0.10 | 29-1141.00 | 39.71 | 73.14 | 56.43 | 0 | 0 | 0 |
| Futrell and Parasuraman (1984) | 263 | 0.13 | 0.52[a] | 0.77 | 0.21 | 41-4011.00 | 28.14 | 49.71 | 38.93 | 0 | 1 | 0 |
| Gardner et al. (1987) | 476 | 0.15 | 0.52[a] | 0.91 | 0.22 | 43-9061.00 | 45.14 | 46.86 | 46.00 | 0 | 0 | 0 |
| Gellatly et al. (1991) | 59 | 0.06 | 0.52[a] | 0.89 | 0.09 | 11-9051.00 | 40.43 | 69.29 | 54.86 | 0 | 1 | 0 |
| Goldsmith et al. (1989) | 34 | 0.43 | 0.52[a] | 0.70 | 0.71 | 41-4012.00 | 37.00 | 49.57 | 43.29 | 0 | 0 | 0 |
| Grant (2008) | 140 | 0.1 | 0.70[b] | 0.81 | 0.11 | 41-9041.00 | 48.29 | 43.29 | 45.79 | 1 | 0 | 0 |
| Green et al. (2006) | 269 | 0.41 | 0.79 | 0.87 | 0.49 | 11-3121.00 | 29.00 | 64.71 | 46.86 | 0 | 0 | 0 |
| Greene (1972) | 142 | 0.58 | 0.52[a] | 0.74 | 0.93 | 43-1011.00 | 37.14 | 68.00 | 52.57 | 0 | 0 | 0 |
| Greene (1973) | 62 | 0.27 | 0.81 | 0.74 | 0.35 | 43-1011.00 | 37.14 | 68.00 | 52.57 | 0 | 0 | 1 |
| Hochwarter et al. (2001) | 299 | 0.07 | 0.52[a] | 0.77[c] | 0.12 | 43-4051.00 | 46.71 | 51.29 | 49.00 | 0 | 0 | 0 |
| Ivancevich (1974) | 106 | 0.08 | 0.52[a] | 0.74 | 0.13 | 51-4023.00 | 50.86 | 64.14 | 57.50 | 0 | 1 | 0 |
| Ivancevich (1979) | 42 | 0.32 | 0.39 | 0.77 | 0.58 | 17-2161.00 | 38.00 | 63.71 | 50.86 | 0 | 1 | 1 |
| Ivancevich (1979) | 48 | 0.32 | 0.39 | 0.77 | 0.58 | 17-2051.00 | 30.86 | 67.00 | 48.93 | 0 | 1 | 1 |
| Ivancevich (1980) | 249 | 0.24 | 0.23 | 0.39 | 0.80 | 17-2051.00 | 30.86 | 67.00 | 48.93 | 1 | 1 | 0 |
| Ivancevich and Donnelly (1975) | 77 | 0.21 | 0.70[b] | 0.74 | 0.34 | 41-2031.00 | 33.86 | 49.57 | 41.71 | 1 | 1 | 1 |
| Ivancevich and Donnelly (1975) | 100 | 0.16 | 0.70[b] | 0.74 | 0.26 | 41-2031.00 | 33.86 | 49.57 | 41.71 | 1 | 1 | 1 |
| Ivancevich and Donnelly (1975) | 118 | 0.1 | 0.70[b] | 0.74 | 0.16 | 41-2031.00 | 33.86 | 49.57 | 41.71 | 1 | 1 | 1 |
| Ivancevich and McMahon (1982) | 209 | 0.38 | 0.52[a] | 0.83 | 0.58 | 17-2141.00 | 33.57 | 53.86 | 43.71 | 0 | 1 | 0 |
| Ivancevich and Smith (1981) | 150 | 0.15 | 0.70[b] | 0.29 | 0.68 | 41-4012.00 | 37.00 | 49.57 | 43.29 | 1 | 1 | 1 |
| Jabri (1992) | 98 | 0.28 | 0.52[a] | 0.67 | 0.47 | 19-1021.00 | 37.14 | 51.43 | 44.29 | 0 | 1 | 0 |
| Jaramillo et al. (2006) | 138 | 0.26 | 0.9 | 0.92 | 0.29 | 41-2031.00 | 33.86 | 49.57 | 41.71 | 0 | 0 | 0 |
| Johlke et al. (2000) | 318 | 0.15 | 0.91 | 0.88 | 0.17 | 41-4012.00 | 37.00 | 49.57 | 43.29 | 0 | 0 | 0 |
| Johnston et al. (1988) | 102 | 0.18 | 0.52[a] | 0.7 | 0.30 | 41-4012.00 | 37.00 | 49.57 | 43.29 | 0 | 1 | 0 |

**Table 6** continued

| Study | $N$ | $r$ | $r_{jp}$ | $r_{js}$ | $\rho$ | O*NET occupation number | Const. | Consq. | Comp. | Obj v. subj performance | Globe v. facet satisfaction | Design |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Joyce et al. (1982) | 193 | 0.08 | 0.52[a] | 0.87 | 0.12 | 51-1011.00 | 43.14 | 78.00 | 60.57 | 0 | 0 | 0 |
| Keller (1997) | 532 | 0.07 | 0.39 | 0.88 | 0.12 | 19-1021.00 | 37.14 | 51.43 | 44.29 | 0 | 0 | 1 |
| Kinicki et al. (1990) | 312 | 0.12 | 0.52[a] | 0.94 | 0.17 | 29-1141.00 | 39.71 | 73.14 | 56.43 | 0 | 0 | 0 |
| Kirchner (1965) | 72 | 0.67 | 0.92 | 0.83 | 0.77 | 41-3011.00 | 35.14 | 58.00 | 46.57 | 1 | 1 | 0 |
| Kuhn et al. (1971) | 184 | 0.11 | 0.52[a] | 0.74 | 0.18 | 51-4023.00 | 50.86 | 64.14 | 57.50 | 0 | 1 | 1 |
| Lam and Schaubroeck (2000) | 360 | 0.18 | 0.52[a] | 0.9 | 0.26 | 43-3071.00 | 48.14 | 62.71 | 55.43 | 0 | 0 | 1 |
| Lopes et al. (2006) | 44 | 0.57 | 0.8 | 0.91 | 0.67 | 43-9041.02 | 43.14 | 52.14 | 47.64 | 1 | 0 | 0 |
| Low et al. (2001) | 148 | 0.24 | 0.88 | 0.89 | 0.27 | 41-4012.00 | 37.00 | 49.57 | 43.29 | 0 | 0 | 0 |
| Lucas (1985) | 213 | 0.13 | 0.52[a] | 0.37 | 0.30 | 41-1011.00 | 39.14 | 66.57 | 52.86 | 0 | 1 | 0 |
| Lusch and Serpkenci (1990) | 182 | 0.06 | 0.52[a] | 0.81 | 0.09 | 41-1011.00 | 39.14 | 66.57 | 52.86 | 0 | 1 | 0 |
| MacKenzie et al. (1998) | 672 | 0.19 | 0.52[a] | 0.87 | 0.28 | 41-3021.00 | 32.86 | 57.43 | 45.14 | 1 | 0 | 0 |
| Marshall and Stohl (1993) | 143 | 0.1 | 0.52[a] | 0.72 | 0.16 | 51-2092.00 | 54.71 | 56.43 | 55.57 | 0 | 1 | 0 |
| Mathieu and Farr (1991) | 311 | 0.08 | 0.52[a] | 0.91 | 0.12 | 17-2041.00 | 27.29 | 66.71 | 47.00 | 0 | 0 | 0 |
| Matteson et al. (1984) | 355 | 0.18 | 0.9 | 0.85 | 0.21 | 41-3021.00 | 32.86 | 57.43 | 45.14 | 1 | 0 | 0 |
| McNeilly and Goldsmith (1991) | 138 | 0.13 | 0.52[a] | 0.75 | 0.21 | 41-3021.00 | 32.86 | 57.43 | 45.14 | 0 | 0 | 0 |
| Menguc et al. (2007) | 154 | 0.31 | 0.88 | 0.57 | 0.44 | 41-4011.00 | 28.14 | 49.71 | 38.93 | 0 | 0 | 0 |
| Meyer et al. (1989) | 61 | −0.07 | 0.52[a] | 0.89 | −0.10 | 35-1012.00 | 38.57 | 69.57 | 54.07 | 0 | 1 | 0 |
| Michael et al. (2005) | 641 | −0.01 | 0.52[a] | 0.79 | −0.02 | 51-7041.00 | 53.00 | 58.14 | 55.57 | 0 | 0 | 0 |
| Mossholder et al. (1988) | 220 | 0.05 | 0.52[a] | 0.83 | 0.08 | 51-2022.00 | 50.29 | 53.00 | 51.64 | 0 | 0 | 0 |
| Mulki et al. (2008) | 346 | 0.2 | 0.74 | 0.46 | 0.34 | 41-4011.00 | 28.14 | 49.71 | 38.93 | 0 | 1 | 0 |
| Oldham et al. (1976) | 201 | −0.09 | 0.52[a] | 0.74 | −0.15 | 43-9061.00 | 45.14 | 46.86 | 46.00 | 0 | 1 | 0 |
| Orpen and Bernath (1987) | 80 | 0.03 | 0.52[a] | 0.74 | 0.05 | 11-9021.00 | 32.86 | 67.86 | 50.36 | 0 | 0 | 0 |
| Packard and Motowidlo (1987) | 206 | 0.24 | 0.52[a] | 0.86 | 0.36 | 29-1141.00 | 39.71 | 73.14 | 56.43 | 0 | 0 | 0 |
| Park and Holloway (2003) | 199 | 0.1 | 0.76 | 0.92 | 0.12 | 41-2031.00 | 33.86 | 49.57 | 41.71 | 0 | 0 | 0 |
| Parker (2007) | 58 | 0.03 | 0.52[a] | 0.9 | 0.04 | 51-2022.00 | 50.29 | 53.00 | 51.64 | 0 | 0 | 1 |
| Pettijohn et al. (2007) | 210 | 0.4 | 0.89 | 0.87 | 0.45 | 41-2031.00 | 33.86 | 49.57 | 41.71 | 0 | 0 | 0 |
| Ramaswami and Singh (2003) | 154 | 0.04 | 0.52[a] | 0.94 | 0.06 | 41-4012.00 | 37.00 | 49.57 | 43.29 | 0 | 0 | 0 |

**Table 6** continued

| Study | *N* | *r* | $r_{jp}$ | $r_{js}$ | $\rho$ | O*NET occupation number | Const. | Consq. | Comp. | Obj v. subj performance | Globe v. facet satisfaction | Design |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Randall and Scott (1988) | 163 | 0.25 | 0.52[a] | 0.72 | 0.41 | 29-1141.00 | 39.71 | 73.14 | 56.43 | 0 | 0 | 0 |
| Rich (1997) | 183 | 0.1 | 0.52[a] | 0.82 | 0.15 | 41-4011.00 | 28.14 | 49.71 | 38.93 | 0 | 0 | 0 |
| Rich et al. (2010) | 245 | 0.29 | 0.52[a] | 0.83 | 0.44 | 33-2011.01 | 36.50 | 65.00 | 50.75 | 0 | 0 | 0 |
| Brown and Peterson (1994) | 380 | 0.31 | 0.52[a] | 0.68 | 0.52 | 41-9091.00 | 26.29 | 29.00 | 27.64 | 0 | 0 | 0 |
| Brown et al. (1993) | 466 | 0.13 | 0.52[a] | 0.91 | 0.19 | 41-4012.00 | 37.00 | 49.57 | 43.29 | 0 | 0 | 0 |
| Saks and Ashforth (1996) | 153 | 0.28 | 0.52[a] | 0.72 | 0.46 | 13-2011.01 | 39.43 | 56.57 | 48.00 | 0 | 0 | 1 |
| Sargent and Terry (2000) | 62 | 0.13 | 0.93 | 0.89 | 0.14 | 43-9061.00 | 45.14 | 46.86 | 46.00 | 0 | 0 | 1 |
| Schleicher et al. (2004) | 84 | 0.23 | 0.52[a] | 0.94 | 0.33 | 33-2011.01 | 34.86 | 65.00 | 49.93 | 0 | 0 | 0 |
| Schriesheim et al. (1995) | 48 | −0.08 | 0.52[a] | 0.74 | −0.13 | 43-1011.00 | 37.14 | 68.00 | 52.57 | 0 | 0 | 0 |
| Seibert et al. (2004) | 311 | −0.05 | 0.42 | 0.73 | −0.09 | 51-3022.00 | 60.57 | 51.43 | 56.00 | 0 | 0 | 0 |
| Schwoerer and May (1996) | 301 | 0.11 | 0.52[a] | 0.83 | 0.17 | 17-2141.00 | 33.57 | 53.86 | 43.71 | 0 | 0 | 0 |
| Skibba and Tan (2004) | 31 | 0.31 | 0.52[a] | 0.77[c] | 0.49 | 33-2011.01 | 34.86 | 65.00 | 49.93 | 0 | 0 | 0 |
| Slocum (1971) | 87 | 0.19 | 0.52[a] | 0.74 | 0.31 | 51-1011.00 | 44.00 | 75.71 | 59.86 | 0 | 1 | 0 |
| Spector et al. (1988) | 148 | 0.42 | 0.52[a] | 0.9 | 0.61 | 43-6014.00 | 42.71 | 47.71 | 45.21 | 0 | 0 | 0 |
| Steers (1975) | 133 | 0.26 | 0.52[a] | 0.74 | 0.42 | 43-1011.00 | 37.14 | 68.00 | 52.57 | 0 | 0 | 0 |
| Suazo (2009) | 239 | 0.09 | 0.89 | 0.83 | 0.10 | 43-4051.00 | 46.71 | 51.29 | 49.00 | 0 | 0 | 0 |
| Sy et al. (2006) | 187 | 0.2 | 0.52[a] | 0.91 | 0.29 | 35-3021.00 | 43.86 | 55.00 | 49.43 | 0 | 0 | 0 |
| Tuten and Neidermeyer (2004) | 122 | 0.32 | 0.85 | 0.93 | 0.36 | 43-4051.00 | 46.71 | 40.00 | 43.36 | 0 | 0 | 0 |
| Van Scotter (2000) | 95 | 0.27 | 0.52[a] | 0.64 | 0.47 | 49-3011.00 | 41.14 | 65.57 | 53.36 | 0 | 0 | 0 |
| Vecchio et al. (2008) | 179 | 0.26 | 0.52[a] | 0.78 | 0.41 | 25-2031.00 | 30.43 | 50.14 | 40.29 | 0 | 0 | 0 |
| Vilela et al. (2008) | 122 | 0.28 | 0.52[a] | 0.9 | 0.41 | 41-4012.00 | 37.00 | 49.57 | 43.29 | 0 | 0 | 0 |
| Wright and Cropanzano (2000) | 47 | −0.08 | 0.56 | 0.63 | −0.13 | 21-1093.00 | 33.00 | 54.00 | 43.50 | 0 | 1 | 0 |
| Wright and Cropanzano (2000) | 37 | 0.08 | 0.87 | 0.72 | 0.10 | 21-1092.00 | 37.86 | 69.86 | 53.86 | 0 | 1 | 0 |
| Wright et al. (2007) | 112 | 0.36 | 0.52[a] | 0.75 | 0.58 | 39-1021.00 | 32.43 | 70.29 | 51.36 | 0 | 1 | 0 |
| Yi et al. (2011) | 332 | 0.55 | 0.52[a] | 0.85 | 0.83 | 43-4051.00 | 48.83 | 51.29 | 50.06 | 0 | 0 | 1 |
| Yilmaz (2002) | 576 | 0.27 | 0.87 | 0.76 | 0.33 | 41-2031.00 | 33.86 | 49.57 | 41.71 | 0 | 1 | 0 |

**Table 6** continued

| Study | $N$ | $r$ | $r_{jp}$ | $r_{js}$ | $\rho$ | O*NET occupation number | Const. | Consq. | Comp. | Obj v. subj performance | Globe v. facet satisfaction | Design |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yurchisin and Park (2010) | 211 | 0.4 | 0.83 | 0.86 | 0.47 | 41-2031.00 | 34.00 | 49.57 | 41.79 | 0 | 0 | 0 |

$N$ = sample size, $r$ = uncorrected correlation (including composites of multiple measures), $r_{jp}$ = reliability of job performance (including composites of multiple measures), $r_{js}$ = reliability of job satisfaction (including composites of multiple measures), $\rho$ = corrected correlation

[a] Meta-analytic estimate of the reliability of the ratings from a single supervisor from Viswesvaran et al. (1996); *const.* constraints, *consq.* consequences, *comp*. composite situational strength. Obj v. Subj Performance = objective vs. subjective performance measure (0 = subjective, 1 = objective). Globe v. Facet Satisfaction = global vs. facet job satisfaction measure (0 = global, 1 = facet). Design = longitudinal vs. cross-sectional study design (0 = cross-sectional, 1 = longitudinal)

[b] A substitute reliability estimate based on all other job performance studies in the meta-analysis

[c] A substitute reliability estimate based on all other satisfaction–performance studies in the meta-analysis. All situational strength dimensions computed from O*NET job characteristics as described in Meyer et al. (2009)

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