#### **ORIGINAL PAPER**



# Measuring General Job Satisfaction: Which Is More Construct Valid—Global Scales or Facet-Composite Scales?

Nathan Bowling<sup>1</sup> · Lucian Zelazny<sup>2</sup>

Accepted: 22 February 2021

© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2021

#### Abstract

In order to assess general job satisfaction, researchers often use composites formed by summing scores from multiple satisfaction facets. The appropriateness of composites, however, is a matter of contention: some researchers have argued that composites provide an effective means of assessing general job satisfaction (e.g., Spector, *American Journal of Community Psychology, 13*, 693-713. 1985), whereas others have argued that composites are inappropriate and should be replaced with global job satisfaction scales (e.g., Ironson et al., *Journal of Applied Psychology, 74*, 193-200. 1989). To address this debate, we compared the construct validities of composite job satisfaction scales with those of global job satisfaction scales. We first created a nomological network that specifies a hypothetical pattern of relationships that exists between general job satisfaction and several external variables. Using this network as a guide, we conducted two studies (total N = 676) that examined the construct validities of four global scales and five composite scales. Within both studies, we found that composite satisfaction scales and global satisfaction scales included in the nomological network. This suggests that the two types of scales are equally effective at assessing general job satisfaction. Researchers, therefore, should not summarily disregard previous studies that have used composite measures. These findings also suggest that it is appropriate to use composite measures in instances where global satisfaction data are unavailable, a situation that can occur when working with archival or organizational datasets.

Keywords Job attitudes · Job satisfaction · Facet satisfaction · Construct validity · Nomological network · Measurement

One of the most useful things that an employer can know about its workers is whether or not they are satisfied with their jobs (Roznowski & Hulin, 1992). This knowledge, for instance, can aid in the diagnosis of organizational problems and it can be used as a criterion for assessing the effectiveness of organizational policies and practices (Spector, 1997). Perhaps most impressive is the variety of important outcomes that have been linked to job satisfaction, including in-role job performance (Judge et al., 2001); organizational citizenship

Lucian Zelazny lzelazny@unca.edu

> Nathan Bowling nathan.bowling@wright.edu

behavior (OCB; LePine et al., 2002); counterproductive work behavior (CWB; Dalal, 2005); and various withdrawal behaviors, including absenteeism (Farrell & Stamm, 1988) and turnover (Griffeth et al., 2000).

Despite the scientific progress that has been made, questions remain about how to most effectively assess job satisfaction. We address one such question in the current paper. Specifically, we examine which type of scale provides a more construct valid means of assessing general job satisfactionglobal scales or composite scales formed from multiple satisfaction facets? There is, in fact, disagreement among job satisfaction researchers regarding the appropriateness of facetcomposite scales: some researchers have argued that composites provide an effective means of assessing general job satisfaction (e.g., Spector, 1985; Weiss et al., 1967); others have argued that composites are inappropriate (e.g., Dalal, 2013; Ironson et al., 1989). The latter group contends that rather than using composite scales to assess general job satisfaction, researchers should instead use global job satisfaction scales. Although each side of this disagreement offers a conceptual

<sup>&</sup>lt;sup>1</sup> Department of Psychology, Wright State University, Dayton, OH, USA

<sup>&</sup>lt;sup>2</sup> Department of Management and Accountancy, University of North Carolina-Asheville, Carmichael Hall, CPO 1850, Asheville, NC 28804, USA

basis for their position, there is currently a lack of empirical tests of the appropriateness of composite measures. We address this need by comparing the construct validities of composite job satisfaction scales with those of global job satisfaction scales.

Our research has important implications. First, it addresses whether or not researchers should disregard previous results using composite scores. Many studies have relied on composite scores to measure general job satisfaction; as such, our findings have implications for how researchers should interpret large swaths of the job satisfaction literature. Our findings also provide guidance regarding the appropriateness of using composite scales to assess general job satisfaction in instances where global satisfaction data are unavailable—a situation that often occurs when working with archival or organizational datasets.

As we review below, prior studies have examined the relationship between these two types of job satisfaction measures (e.g., Highhouse & Becker, 1993; Ironson et al., 1989; Scarpello & Campbell, 1983). Although those studies have shown that global scales and composite scales assess distinct constructs, it remains unclear which type of scale—if either is most effective at assessing general job satisfaction. We conducted two studies to address this question. In the following section, we review previous research using global and composite scales. We then describe the approach we used to compare the construct validity of these two types of measures.

# Measuring General Job Satisfaction with Global and Composite Scales

Researchers have used several scales to measure general job satisfaction. These scales can be categorized into two types: (a) global satisfaction scales and (b) composite satisfaction scales formed by summing individual satisfaction facets (see Dalal, 2013; Ironson et al., 1989; Spector, 1997). We discuss these two types of scales in the following subsections.

**Global Satisfaction Scales** *Global scales* ask workers to directly report their general level of job satisfaction. Examples of this type of scale include the Overall Job Satisfaction Scale (OJS; Brayfield & Rothe, 1951), the Michigan Organizational Assessment Questionnaire-Job Satisfaction Subscale (MOAQ-JSS; Cammann et al., 1979), and the Job in General Scale (JIG; Ironson et al., 1989). These scales share a critical feature: rather than assessing workers' satisfaction toward specific aspects of their job, they assess workers' satisfaction toward their job as a whole. The OJS, for instance, asks respondents to report the extent to which they agree with such items as "I feel fairly satisfied with my present job," "I find real enjoyment in my work," and "I consider my job rather unpleasant" (reverse-scored).

**Composite Satisfaction Scales** *Composite scales* are created by summing workers' scores across multiple job satisfaction facets. Facet scales, which ask workers to report their level of satisfaction with specific aspects of their jobs, include the Minnesota Satisfaction Questionnaire (MSQ; Weiss et al., 1967), the Job Descriptive Index (JDI; Smith et al., 1969), and the Job Satisfaction Scale (JSS; Spector, 1985). The JDI, for instance, which is generally representative of the item content included in other facet satisfaction scales, assesses satisfaction toward five distinct facets: (a) work itself, (b) supervision, (c) coworkers, (d) pay, and (e) promotion opportunities.

A consensus exists among job satisfaction researchers in favor of reporting separate scores for each facet. Authors of the MSQ, JDI, and JSS, for instance, each describe how their respective instruments can be used to compute subscales corresponding to individual job satisfaction facets. Researchers disagree, however, about the legitimacy of summing various facet scores to create a composite job satisfaction score. The authors of the MSQ and JSS, for example, recommend that users compute such composite scales (see Spector, 1985; Weiss et al., 1967); however, other researchers—including the authors of the JDI-have explicitly warned users against summing individual facet scores (see Dalal, 2013; Ironson et al., 1989). Researchers in the latter camp, for instance, reject the use of composite scales because they are based on the presumably untenable assumptions that a given instrument (a) includes every important facet, (b) that it omits irrelevant facets, and (c) that all facets are equally important. Despite such admonishments, several articles published in top-tier journals have used composite scales to assess general job satisfaction (e.g., Klein et al., 2014; Liu et al., 2012; Piening et al., 2013; Schleicher et al., 2015; Swider et al., 2011).

We thus sought to extend prior research examining the relationship between global scales and composite scales (e.g., Highhouse & Becker, 1993; Ironson et al., 1989; Scarpello & Campbell, 1983). Although those studies found only moderate positive correlations between global and composite scales—suggesting that they assess somewhat different constructs—research has not compared the construct validity of global scales with that of composite scales. Our goal is to address this omission in the literature.

# Comparing the Construct Validity of Global and Composite Scales

Construct validity is the extent to which a given measure effectively assesses the construct it was designed to assess (see Cronbach & Meehl, 1955; Hinkin, 1998). In the current research, we examined the construct validity of various global satisfaction scales and various composite satisfaction scales. To do this, we first drew from several sources (e.g., Bowling,

2018; Kinicki et al., 2002; Spector, 1997) to create a nomological network for the general job satisfaction construct (see Table 1). This network specifies a hypothetical pattern of relationships that should exist between general job satisfaction and several external variables. We inferred evidence of a given job satisfaction scale's construct validity based upon the extent to which it yielded the hypothesized pattern of relationships depicted in the nomological network.

In the following subsections, we discuss three categories of external variables we included in the nomological network: general job satisfaction's hypothesized (a) predictors, (b) correlates, and (c) consequences. Table 1 specifies the direction of each external variable's hypothesized relationship with general job satisfaction.

**Hypothesized Predictors of General Job Satisfaction** The nomological network includes three categories of hypothesized predictors of general job satisfaction—job complexity, work stressors, and interpersonal treatment at work (see Table 1). *Job complexity* reflects the extent to which a person's work tasks have intrinsically motivating qualities, such as autonomy, feedback, and variety (Hackman & Oldham, 1975, 1980). These qualities are expected to be positively related to general job satisfaction because they fulfill the fundamental human need for growth. And indeed, studies have consistently found that a job complexity score formed by summing various job characteristics yields a positive relationship with general job satisfaction (see Fried & Ferris, 1987).

*Work stressors* are qualities of one's work environment that place adaptive demands on workers and thus have

the potential to produce psychological and physical illness (Jex et al., 1992). Our nomological network included four work stressors—role ambiguity, role conflict, role overload (for a description of these role stressors, see Rizzo et al., 1970), and organizational constraints (see Spector & Jex, 1998). We expect each of these work stressors to yield negative relationships with general job satisfaction. Such relationships may occur because the presence of stressors undermines a person's ability to acquire and maintain psychological resources (see Hobfoll, 2001). Consistent with this reasoning, each of the work stressors included in our nomological network consistently yields negative relationships with general job satisfaction (see Bowling et al., 2015; Bowling et al., 2017; Pindek & Spector, 2016).

Several distinct variables reflecting *interpersonal treatment at work* have appeared in the literature. Our nomological network includes two such variables social support (Cohen & Wills, 1985) and interpersonal conflict (Spector & Jex, 1998). We expect both of these variables to be related to general job satisfaction by virtue of their effects on workers' ability to meet their needs for healthy social relationships (see Baumeister & Leary, 1995). Specifically, we expect social support to be positively related to general job satisfaction because it aids in the fulfillment of relationship needs; we expect interpersonal conflict to be negatively related to general job satisfaction because it thwarts the fulfillment of relationship needs. Indeed, research consistently finds that social support (Viswesvaran et al., 1999) and

Table 1The nomological<br/>network for general job<br/>satisfaction used in studies 1 and<br/>2

External variable	Hypothesized relationship	Included in study 1	Included in study 2
Hypothesized predictors			
Job complexity	+	х	
Role ambiguity	-	х	
Role conflict	-	х	
Role overload	-	х	
Organizational constraints	-		х
Social support	+		х
Interpersonal conflict	-	Х	
Hypothesized correlates			
Organizational commitment	+	Х	х
Life satisfaction	+	х	х
Hypothesized consequences			
Organizational citizenship behavior	+	Х	х
Counterproductive work behavior	-	Х	
Organizational withdrawal behaviors	-		х

*Note.* The *hypothesized relationship* column indicates whether job satisfaction's hypothesized relationship with the given external variable is positive or negative. An x in the two right-handed columns indicates that the corresponding external variable was included in the given study

interpersonal conflict (Bowling & Beehr, 2006) are related to general job satisfaction.

Hypothesized Correlates of General Job Satisfaction As shown in Table 1, the nomological network includes two hypothesized correlates of general job satisfaction—*organiza-tional commitment* (Klein et al., 2012) and *life satisfaction* (Diener et al., 1985). First, we expect organizational commitment and general job satisfaction to be positively related because the two variables share a key conceptual similarity: Both reflect a person's attitude toward a work-related object—either one's employer (in the case of general job satisfaction; see Harrison et al., 2006; Hulin, 1991). Consistent with this reasoning, research has found a strong positive relationship between organizational commitment (particularly affective commitment) and general job satisfaction (see Meyer et al., 2002).

We also expect life satisfaction to also be positively related to general job satisfaction. This relationship may simply be the result of general job satisfaction's status as a subdimension of life satisfaction (see Judge et al., 1998). Indeed, research has consistently found a strong positive relationship between life satisfaction and general job satisfaction (see Bowling et al., 2010).

Hypothesized Consequences of General Job Satisfaction The nomological network (see Table 1) includes three hypothesized consequences of general job satisfaction: (a) organizational citizenship behavior (OCB; Organ & Ryan, 1995), (b) counterproductive work behavior (CWB; Spector et al., 2006), and (c) organizational withdrawal behaviors (Hanisch & Hulin, 1990). Each of these hypothesized consequences of general job satisfaction can be thought of as a specific form of extrarole performance (see Sackett, 2002).

The principle of reciprocity (see Gouldner, 1960) and social exchange processes (see Cropanzano & Mitchell, 2005) predict that general job satisfaction will be positively related to indicators of effective performance (e.g., OCBs) and negatively related to indicators of ineffective performance (e.g., CWBs and withdrawal behaviors). Satisfied employees, in other words, may "pay back" their employer for providing a desirable work environment by engaging in productive behaviors; dissatisfied employees, on the other hand, may "pay back" their employer for providing an undesirable work environment by engaging in unproductive behaviors. In support of this prediction, research has consistently found that general job satisfaction yields a positive relationship with OCB (LePine et al., 2002) and negative relationships with both CWB (Dalal, 2005) and organizational withdrawal behaviors (e.g., absenteeism and turnover; Farrell & Stamm, 1988; Griffeth et al., 2000).

#### The Current Research

We conducted two studies to examine the degree to which various global satisfaction scales and various composite satisfaction scales yield patterns of relationships with external variables that match the pattern depicted in the nomological network. This research provides insights into the relative construct validity of global and composite scales, thus extending prior research showing that the two types of scales assess somewhat distinct constructs (e.g., Highhouse & Becker, 1993; Ironson et al., 1989; Scarpello & Campbell, 1983). It is of note that we included multiple global scales and multiple composite scales in both studies; this feature allowed us to test whether our findings could be generalized across various job satisfaction scales. It is also noteworthy that we replicated our findings across two independent samples. This latter feature of our research is important because several researchers have voiced concerns about the general replicability of social science research findings (see Open Science Collaboration, 2015; Pashler & Wagenmakers, 2012).

### Study 1 Method

#### Participants

We recruited the study 1 participants (N = 487) from Amazon's Mechanical Turk (MTurk; for a review of this data source, see Landers & Behrend, 2015). MTurk, which allows researchers to recruit participants who have volunteered to complete on-line questionnaires in exchange for money, generally yields data that are of similar quality to that obtained using more traditional sources (e.g., student samples or employees recruited from a single organization; see Behrend et al., 2011; Casler et al., 2013; Walter et al., 2019). We used MTurk in the current study because it provides participants with a high level of anonymity, a feature that helps increase the validity of participants' responses to socially sensitive questionnaire content (e.g., CWB items; see Berry et al., 2012).

To help increase data quality, participants only qualified for study 1 if they (a) had previously completed 50 or more human intelligence tasks (HITs, i.e., MTurk assignments) and (b) had a HIT approval rate of 95% or greater. These precautions ensured that our participants had an established track record of providing careful responses to HITs. We used MTurk worker IDs to identify respondents who participated in both study 1 and study 2. Sixteen participants who responded to both study questionnaires were excluded from the study 1 analyses (we excluded these participants from study 1 rather than study 2 because study 1 had a larger sample size). The study 1 participants had a mean age of 34.5 years, 56.1% were male, and all were currently employed. On average, the participants had worked in their current jobs for 4.6 years and they worked an average of 39.8 h per week. Example job titles of the study 1 participants included "accounting assistant," "bartender," "cashier," "head teller," and "secretary."

# Measures

We used self-report measures to assess each variable. Unless otherwise noted, the study 1 measures used a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

# **Global Job Satisfaction Scales**

**OJS** We included an abridged version of the OJS (Brayfield & Rothe, 1951) to assess global job satisfaction. This same fiveitem version of the OJS has been used in prior studies (e.g., Judge et al., 1998). A sample item is "I feel fairly satisfied with my present job." The OJS yielded a Cronbach's  $\alpha$  of .85 in study 1.

**MOAQ-JSS** We also used the three-item MOAQ-JSS (Cammann et al., 1979) to assess global job satisfaction. Meta-analytic evidence supports the validity of this measure (Bowling & Hammond, 2008). A sample item is "All in all, I am satisfied with my job." The MOAQ-JSS had a Cronbach's  $\alpha$  of .82.

AJIG We included an eight-item abridged version of the JIG (Ironson et al., 1989) in the study 1 questionnaire. The validity of this abridged measure, or AJIG, has been supported in previous studies (see Russell et al., 2004). Each item had three response options: (a) *Yes*, (b) *No*, and (c) *Can't decide*. A sample item is "Good." The AJIG yielded a Cronbach's  $\alpha$  of .90.

**Single-Item Faces Scale** Finally, we also used a single-item faces scale to assess general job satisfaction (see Kunin, 1955). Similar single-item faces scales have been used to measure general job satisfaction in several previous studies (see Wanous et al., 1997). This item presented participants with a series of seven faces that reflected various degree of dissatisfaction (a frowning face) or satisfaction (a smiling face). We asked participants to select the face that best represents their level of satisfaction with their job overall.

# **Composite Job Satisfaction Scales**

**AJDI** We assessed composite satisfaction with the abridged version of the JDI (Smith et al., 1969). Previous research provides validity evidence for the abridged JDI (AJDI; see Stanton et al., 2002). Each item had three response options: (a) *Yes*, (b) *No*, and (c) *Cannot decide*. A sample (work itself) item is "Satisfying." The AJDI assesses five satisfaction facets

(work itself, supervision, coworkers, pay, and promotional opportunities) using five items per facet. Rather than compute separate scores for each of these facets, we instead averaged the 25 AJDI items to create a composite satisfaction score. The AJDI composite yielded a Cronbach's  $\alpha$  of .91.

JSS We also used the JSS (Spector, 1985) as a measure of composite satisfaction. Several previous studies have used this composite JSS score (see Spector, 1997). Each JSS item was on a 6-point scale from 1 (disagree very much) to 6 (agree very much). The JSS includes four items for each of nine job satisfaction facets: (a) pay, (b) promotion, (c) supervision, (d) fringe benefits, (e) contingent rewards, (f) operating conditions, (g) coworkers, (h) nature of work, and (i) communication. A sample (pay) item is "I feel I am being paid a fair amount for the work I do." One of the original 36 JSS items<sup>1</sup> from the operating conditions facet was removed because it was weakly correlated with the other three operating conditions items. In order to equally weight the contribution of all nine facets, the JSS composite satisfaction score was calculated by first calculating facet scores by averaging the items for each facet. Then, the average for each of the nine facets was used to calculate the composite facet score. The JSS composite vielded a Cronbach's  $\alpha$  of .94.

**FSS** We used the Facet Satisfaction Scale (FSS; Beehr et al., 2006) to assess composite satisfaction. Previous research supports the validity of the FSS (see Bowling et al., 2018). A sample (work itself) item is "Overall, I am very pleased with the types of activities that I do on my job." Although the FSS uses five items to assess each of the five JDI facets, we averaged the 25 FSS items to create a composite satisfaction score. The FSS composite had a Cronbach's  $\alpha$  of .92.

**Faces Facet Scale** We used a single-item faces scale (see Kunin, 1955) to assess each of the five JDI facets (i.e., work, supervision, coworkers, pay, and promotional opportunities). Other researchers have used similar single-item scales to assess job satisfaction facets (see Nagy, 2002). We presented participants with the same series of seven faces we used in the global job satisfaction faces item (see above). A sample (work) item is "Please select the face that best represents your level of satisfaction with the tasks you do at work." We averaged these five items to create a faces composite score, which had a Cronbach's  $\alpha$  of .84.

# Hypothesized Predictors of General Job Satisfaction

**Job Complexity** We assessed job complexity using 10 items from the Job Diagnostic Survey (JDS; Hackman & Oldham,

<sup>&</sup>lt;sup>1</sup> The item removed was "My efforts to do a good job are seldom blocked by red tape."

1975, 1980). Other studies have used this same set of JDS items to assess job complexity (e.g., Bowling et al., 2018). This measure included two items for each of the five job characteristics (skill variety, task identity, task significance, autonomy, and feedback) included in Hackman and Oldham's model. A sample (skill variety) item is "The job requires me to use a number of complex or high level skills." The job complexity scale had a Cronbach's  $\alpha$  of .74.

**Role Ambiguity** We used Bowling et al. (2017) six-item scale to assess role ambiguity. A sample item is "The requirements of the job aren't always clear." The role ambiguity scale had a Cronbach's  $\alpha$  of .83.

**Role Conflict** We used another Bowling et al. (2017) six-item scale to assess role conflict. A sample item is "I have to deal with competing demands at work." The role conflict scale had a Cronbach's  $\alpha$  of .74.

**Role Overload** We assessed role overload with a six-item unpublished scale. A sample item is "I often have too much work to do at my job." The role overload scale had a Cronbach's  $\alpha$  of .83.

**Interpersonal Conflict** We assessed interpersonal conflict using the four-item Interpersonal Conflict at Work Scale (ICAWS; Spector & Jex, 1998). Each ICAWS item was on a 5-point frequency scale from 1 (*never*) to 5 (*very often*). A sample item is "How often are people rude to you at work?" The ICAWS had a Cronbach's  $\alpha$  of .91.

## Hypothesized Correlates of General Job Satisfaction

**Organizational Commitment** We assessed organizational commitment using the six-item Organizational Commitment Questionnaire (OCQ; Porter et al., 1974). A sample item is "I am proud to tell others that I am part of the organization where I work." The OCQ had a Cronbach's  $\alpha$  of .93.

**Life Satisfaction** We assess life satisfaction with the five-item Satisfaction with Life Scale (SWLS; Diener et al., 1985). A sample item is "I am satisfied with my life." The SWLS had a Cronbach's  $\alpha$  of .91.

# Hypothesized Consequences of General Job Satisfaction

**OCB** We assessed OCB using 16 items from Lee and Allen (2002). Participants were asked to report the OCBs they had performed during the previous 12 months. The OCB items was on a 5-point frequency scale from 1 (*never*) to 5 (*every day*). Eight of these items assessed OCBs direct at individual people (OCB-Is; a sample item is "help others who have been

absent"); the other eight items assessed OCBs direct at the organization (OCB-Os; a sample item is "offer ideas to improve the functioning of the organization"). The OCB-I scale had a Cronbach's  $\alpha$  of .86 and the OCB-O scale had a Cronbach's  $\alpha$  of .89.

**CWB** We assessed CWB using 19 items from Bennett and Robinson (2000). Participants were asked to report the CWBs they had committed during the previous 12 months. Each CWB items was on a 5-point frequency scale from 1 (*never*) to 5 (*every day*). Seven of these items assessed CWBs direct at individual people (CWB-Is; a sample item is "acted rudely toward someone at work"); the other 12 items assessed CWBs direct at the organization (CWB-Os; a sample item is "taken property from work without permission"). The CWB-I scale had a Cronbach's  $\alpha$  of .95 and the CWB-O scale had a Cronbach's  $\alpha$  of .95.

# **Study 1 Results and Discussion**

# **Preliminary Analyses**

We conducted a confirmatory factor analysis (CFA) on the 19 study 1 variables. Due to the complexity of the CFA model, we created item parcels to serve as the indicators for the latent variables found in the CFA model (Matsunaga, 2008). The four global job satisfaction scales and the four facet job satisfaction scales served as the indicators for the latent variables Global Job Satisfaction and Job Satisfaction Facets, respectively. Three parcels were created from scale items using the domain representative technique to serve as indicators for each of the remaining latent variables (Kishton & Widaman, 1994; Matsunaga, 2008). The domain representative technique was chosen as it creates parcels that are representative of the whole domain of a multidimensional construct (Little et al., 2013). Goodness-of-fit was assessed using typical guidelines (Hu & Bentler, 1999; Marsh et al., 2005). Values greater than 0.90 and 0.95, respectively, are considered to be indicative of adequate and excellent fit to the data for CFI and TLI. RMSEA values smaller than 0.08 and 0.06, respectively, indicate acceptable and excellent model fit. The study 1 CFA yielded adequate fit ( $\chi^2(df = 701, N = 487) = 2438.010$ ; CFI = .929; TLI = .917; RMSEA = .071 (90% CI: .068-.074); SRMR = .061), supporting the construct validity of the study 1 measures.

Furthermore, we found that each of the global job satisfaction scales and each of the composite job satisfaction scales were consistently related to general job satisfaction's hypothesized predictors, correlates, and consequences in the directions that we had predicted (see Table 2). Each job satisfaction scale, for example, was positively associated with job complexity and organizational commitment, but negatively

Table 2	Correlations bet	tween job	satisfac	tion scal	es (study	v 1)																
		Mean	SD	1	2	3	4	5	6	7	8	6	10	11	12	13	14	15 1	9	17	8	19
Global	scales																					
-	OJS	4.80	1.45	(.85)	1.00	.90	98.	67.	.88	80.	.78	- 75	70	61	66	36	83	59	36 .	- 22	21	30
2	MOAQ- JSS	4.98	1.52	80.	(.82)	89.	1.00	.81	.85	.88	.80	- 71	70	57	61	34	83	59	38	- 22	15	24
ŝ	AJIG	2.20	0.97	.79	77.	(06.)	.94	.85	.71	.76	.80	- 55	53	47	49	22	75 .	56	30	48	07	15
4	Single-item Faces	5.35	1.51	.75	.75	.74	NA	.88	LL.	.89	1.00	- 47	54	- 49	51	03		. 69	49 .	. 89	17	.06
Compc	site scales																					
5	Idla	2.07	0.77	.70	.70	77.	.70	(.91)	.78	.83	.90	- 53	49	42	46	20	73 .	58	30	46 -	05	13
9	JSS	3.96	0.92	67.	.75	.66	.62	.73	(.94)	.92	.74	- 74	75	70	72	47	. 69	49	26 .	40	30	39
Г	FSS	4.42	1.06	.79	77.	.70	.71	.76	.86	(.92)	.87	- 02.	65	61	61	28	80	59	37 .	51 -	10	19
8	Faces-facet	5.13	1.28	.66	.67	.70	.84	.79	.66	LL.	(.84)	- 45	-45	43	- 43	02	81 .	65	47 .	62 .	15	.06
Other v	/ariables																					
6	JDS	4.66	0.96	.60	.56	.45	.34	.44	.62	.58	.36	- (.74)	75	56	58	53	53 .	36	32 .	33 -	46	47
10	Role Ambiguity	2.99	1.27	59	58	46	41	43	67	57	38	59 (	(.83)	. 82	.85	- 26	46	- 39 -	20	19	42	.49
11	Role Conflict	3.55	1.21	49	45	39	35	35	59	51	34	42	65	.74) .	91	- 46	37	38	- 02	06	26	.29
12	Role Overload	3.29	1.29	56	51	43	39	40	64	54	36	46	71	.72	(.83)	- 20	42	36 -	04	10	36	.40
13	ICAWS	1.93	1.06	32	30	20	03	19	44	26	02	44	49	.38	44	- (10.)	02	03	12	16	81	.78
14	000	4.82	1.47	.74	.73	69.	.72	.68	.65	.74	.72	.44	-41	31	37	02	.93) .	. 09	50 .	. 07	10	.01
15	SWLS	4.97	1.45	.52	.51	.51	.55	.53	.46	.54	.57	.30	34	32	32	03	56 (	. (19.)	33 .	45 .	60	00.
16	OCB-I	3.37	0.83	.31	.32	.27	.38	.27	.24	.33	.40	.26	17	- 02	04		45 .	30 (	. (98.)	84	15	60.
17	OCB-O	3.15	0.96	.46	.45	.43	.53	.42	.37	.47	.54		- 17	05	-00	.15	64	41	74 (	. (68.	23	.15
18	CWB-I	1.72	1.03	19	14	07	.14	05	29	10	.14	39	38	. 22	32	.76	10	. 60	14	22 (	(56)	.95
19	CWB-O	1.84	0.99	27	22	14	.05	13	37	18	.06	40	44	. 25	36	.73 .	01 .	00	. 60	14	91	(56.)
Note. N	/= 487. Cronbach's	$\alpha$ of each that simple	ı variabl.	e appear	on the d	liagonal.	Uncorred f 68 /50	oted corre	elations a	ppear be	show the t	diagonal;	correcte	d correla	tions apr	bear abov	re the dia	igonal. W	/hen cor	nputing	the corre	cted
Correls	tions stronger than	+ 08 are	sionific,	$\frac{1}{2}$		orrelation	s strono	er than +	17 are (	sionifican	nt at n <	01				ic point	00.1 60					
OSIO	rerall Joh Satisfactic	vo arc m Scale. A		SS Mich	vv ~	vanizatio	guone ei Asse lan	ssment O	niestionn	aire-Ioh	Satisfact	ion Scale	, A.IIG A	hridged	Ioh in G	eneral Sc	ale. A.ID	/ Abridø	ed Joh D	escrintiv	re Index	SST
Job Sai	isfaction Scale, FS	S Facet Sa	tisfactio	n Scale,	JDS Job	Diagno	stic Surv	ey, ICAV	VS Interp	ersonal (	Conflict	at Work	Scale, O	CQ Orga	mization	al Comm	uitment (	Question	naire, SV	VLS Sati	sfaction	with .
Lite Solution	cale, <i>OCB-I</i> Organi d at Individuals, <i>CV</i>	zational ( <i>VB-O</i> Cou	utizenst interproc	up Beha luctive <sup>1</sup>	work Be	ected at havior d	irected a	als, <i>UCb</i> t the Org	anization	inization.	al Uttizei	nship Be	havior d	irected a	t the Or	ganizatio	n, CWB	-1 Count	erproduc	stive Wo	ork Behä	avior

associated with the three role stressors. This pattern of correlations is consistent with past research findings (e.g., Bowling et al., 2017; Fried & Ferris, 1987; Meyer et al., 2002) and thus provides additional evidence for the quality of the study 1 dataset.

### **Convergence Among Global and Composite Scales**

As shown in Table 2, the four global job satisfaction scales were strongly related to each other (mean r = .78), the four composite job satisfaction scales were strongly related to each other (mean r = .76), and each global job satisfaction scale was strongly related to each composite job satisfaction scale (mean r = .72). This pattern of findings is of note because it indicates that the global scales converged with the composite scales nearly as well as either the global scales converged with each other or the composite scales converged with each other. It is also of note that the global scales generally correlated > .70with the composite scales, suggesting that these two classes of job satisfaction scales are largely redundant with each other (for a discussion of r > .70 as evidence for convergent validity, see Nunnally, 1967). These results conflict with past research showing that global scales and composite scales assess distinct constructs (see Highhouse & Becker, 1993; Ironson et al., 1989; Scarpello & Campbell, 1983). In the General Discussion section, we provide explanations for why the current findings conflict with those of previous studies.

# Comparing Global and Composite Scales' Correlations with External Variables

To help us directly compare the construct validity of the global satisfaction scales with that of the composite satisfaction scales, we computed the mean of the absolute values of each of the eight job satisfaction scales' correlations with the 11 external variables. These analyses yielded several noteworthy findings. First, they suggest that the OJS (mean |r| = .46), MOAQ-JSS (mean |r| = .43), the JSS composite (mean |r| =.49), and the FSS composite (mean |r| = .44) yielded the strongest mean correlations with the external variables of any of the eight job satisfaction scales that we examined in study 1. Those four scales, therefore, may have particularly high levels of construct validity. The AJIG (mean |r| = .37), single-item faces scale (mean |r| = .35), AJDI (mean |r| = .35), and faces composite (mean |r| = .35), on the other hand, yielded relatively weaker mean correlations, suggesting lower levels of validity for those scales. To allow readers to further compare the validity of the study 1 job satisfaction scales, the online supplemental file includes an interactive figure that allows one to plot the results for any two job satisfaction scales (see Figure 1 of the supplemental file).

Again, our primary goal in conducting these analyses was to compare the validity of the global satisfaction scales with that of the composite satisfaction scales. We found that the four global job satisfaction scales yielded a mean correlation with the 11 external variables (mean |r| = .40) that was virtually identical to the four composite job satisfaction scales' mean correlation with the 11 external variables (mean |r| = .41). The results of study 1, therefore, suggest that global scales and composite scales are equally effective at assessing general job satisfaction.

#### Modeling the Effects of Common-Method Variance

Because each study 1 variable was assessed using self-reports, our results could have been affected by common-method variance (CMV). To mitigate the effects of CMV, we took proactive design steps to protect the respondents' anonymity and we randomized the order of the items to limit the participants' ability to recognize the constructs of interest or guess the hypotheses (see Conway & Lance, 2010; Podsakoff et al., 2003; Straub et al., 2004). Additionally, we tested for the influence of CMV using the correlational marker technique (see Arnold & Spell, 2006; Kim et al., 2015; Lindell & Whitney, 2001; Seggewiss et al., 2019). In order to conduct these analyses, we included two marker variable scales-measures that are theoretically unrelated to the study 1 measures (i.e., the job satisfaction and the external variable measures). The marker variables assessed need for cognition (Cacioppo & Petty, 1982,  $\alpha$ = 0.83) and self-monitoring (Snyder, 1974,  $\alpha$  = 0.77). Each of these scales consisted of 10 items. We observed correlations between need for cognition and the focal variables ranged from |.15| to |.48| (mean |r| = .03) and we observed correlations between self-monitoring and the focal variables ranging from |.04| to |.53| (mean |r| = 0.23). Six of the 171 zero-order correlations between the study's variables changed from significant to non-significant when adjusting for CMV, with only one of these six correlations being relevant to our focal analyses (the FSS's relationship with CWB-I). These analyses thus indicate that CMV did not seriously bias the study 1 results (see the on-line supplemental files for more details regarding the study 1 correlational marker analyses).

# Study 2 Method

#### Participants

As in study 1, we recruited the study 2 participants (N = 189) from MTurk (for a review of this data source, see Landers & Behrend, 2015). To qualify for our study, we required participants to have previously completed 100 or more HITs with a HIT approval rate of 95% or greater. Additionally, we used several settings from CloudResearch (formally known as "TurkPrime"; Litman et al., 2017) to help maximize data quality: We blocked duplicate IP addresses and suspicious geo locations, we verify worker country location, and we used the micro batch feature to spread the data collection over 16 days limiting participation to five participants every two hours. The study 2 participants had a mean age of 37 years, 54% were male, and all were currently employed. On average, the participants had worked in their current jobs for 5.3 years and they worked an average of 39.1 h per week. Example job titles of the study 2 participants included "delivery coordinator," "sales rep," "software tester," and "teacher."

### **Screening for Careless Responding**

We screened for careless responding in study 2 using a series of three instructed-response items (for a description of the instructed-response index, see Meade & Craig, 2012). These three items were distributed evenly throughout the study 2 questionnaire. An example instructed-response item was "Please mark Strongly Disagree." Participants were prevented from completing the study 2 questionnaire if they incorrectly responded to any one of the instructed-response items. Previous research supports the construct validity of the instructed-response index (e.g., it converges with other careless responding indices; see Kam & Chan, 2018).

### Measures

**Global Job Satisfaction Scales** Study 2 included three global job satisfaction scales that we had also included in study 1: (a) the abridged OJS (Brayfield & Rothe, 1951; Cronbach's  $\alpha$  = .87), (b) the MOAQ-JSS (Cammann et al., 1979; Cronbach's  $\alpha$  = .86), (c) and a single-item faces scale (see Kunin, 1955). More information about these scales is provided in the Study 1 Method section.

**Composite Job Satisfaction Scales** We included three composite job satisfaction scales in study 2 that we also included in study 1: (a) the AJDI (Stanton et al., 2002; Cronbach's  $\alpha$  = .91), (b) the JSS<sup>2</sup> (Spector, 1985; Cronbach's  $\alpha$  = .95), and (c) the FSS (Beehr et al., 2006; Cronbach's  $\alpha$  = .92). Study 2 also used the short form of the Minnesota Satisfaction Questionnaire (MSQ; Weiss et al., 1967) to assess composite job satisfaction. Previous research supports the validity of the MSQ (see Kinicki et al., 2002). The short form of the MSQ comprises 20 items, each representing a different job satisfaction facet (e.g., satisfaction with coworkers, social status, and working conditions). Each MSQ item was on a 5-point scale from 1 (*very dissatisfied*) to 5 (*very satisfied*). A sample item is "The working conditions." We computed a composite satisfaction score by averaging the 20 MSQ items (Cronbach's  $\alpha = .92$ ).

#### Hypothesized Predictors of General Job Satisfaction

**OCS** We assessed organizational constraints using the 11-item Organizational Constraints Scale (OCS; Spector & Jex, 1998). This measure asks participants to indicate the frequency with which various work-related events or conditions prevent them from effectively performing their jobs. A sample OCS item is "Poor equipment or supplies." Each OCS item was on a 5-point scale from 1 (*less than once per month or never*) to 5 (*several times per day*). The OCS yielded a Cronbach's  $\alpha$  of .93.

**Social Support** We assessed the receipt of social support using eight items from the Person-Centered Support Scale (Eschleman et al., 2020). A sample social support item is "Others at my organization are genuine when communicating with me." Each item was on a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The social support scale yielded a Cronbach's  $\alpha$  of .92.

#### Hypothesized Correlates of General Job Satisfaction

Affective Organizational Commitment We assessed affective organizational commitment using six items from Meyer et al. (1993). A sample item is "This organization has a great deal of personal meaning for me." Each affective commitment item was on a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The affective commitment scale yielded a Cronbach's  $\alpha$  of .91.

Life Satisfaction We assessed life satisfaction using a singleitem faces scale (see Kunin, 1955). This item, which was adapted from the global job satisfaction faces item we used in study 1, provided participants with seven response options.

# Hypothesized Consequences of General Job Satisfaction

**OCB-C** We assessed OCB using the abridged 10-item version of the Organizational Citizenship Behavior Checklist (OCB-C; Spector et al., 2010). Participants were asked "How often have you done each of the following things on your present job?" A sample item is "Volunteered for extra work assignments." Each OCB-C item was on a 5-point scale from 1 (*never*) to 5 (*every day*). The OCB-C yielded a Cronbach's  $\alpha$  of .88.

**Organizational Withdrawal** We assessed organizational withdrawal using five items from Gruys and Sackett (2003). Participants were asked "During the last 12 months, how often have you ...." A sample item is "Missed work without calling in." Each withdrawal item was on a 5-point scale from 1

 $<sup>^2</sup>$  As in study 1, we omitted one operating conditions item because it was weakly correlated with the other three operating conditions items. We computed the composite JSS score using the same method we used in Study 1.

(*never*) to 5 (*every day*). The withdrawal scale yielded a Cronbach's  $\alpha$  of .90.

# **Study 2 Results and Discussion**

### **Preliminary Analyses**

We conducted a CFA on the 13 study 2 measures using the same procedure we used in study 1. The study 2 CFA yielded adequate fit ( $\chi^2(df = 188, N = 189) = 414.767$ ; CFI = .945; TLI = .933; RMSEA = .080 (90% CI: .070–.090); SRMR = .047), thus supporting the construct validity of our measures.

As in study 1, we found that each of the global job satisfaction scales and each of the composite job satisfaction scales were consistently related to general job satisfaction's hypothesized predictors, correlates, and consequences in the directions we had predicted (see Table 3). Each job satisfaction scale, for example, was positively associated with life satisfaction, but negatively associated with withdrawal behaviors. This pattern of correlations is consistent with past research findings (e.g., Bowling et al., 2010; Farrell & Stamm, 1988; Griffeth et al., 2000) and thus provides further evidence for the quality of the study 2 dataset.

#### Table 3 Correlations between Job Satisfaction Scales (study 2)

#### **Convergence Among Global and Composite Scales**

As shown in Table 3, the global job satisfaction scales were positively related to each other (mean r = .79), the composite job satisfaction scales were positively related to each other (mean r = .79), and each global job satisfaction scale was positively related to each composite job satisfaction scale (mean r = .70). This is nearly identical to the pattern of findings we observed in study 1 and suggests that the global scales converged with the composite scales nearly as well as either the global scales converged with each other or the composite scales converged with each other. The strong correlations between the global scales and the composite scales suggest that these two classes of job satisfaction scales are largely redundant with each other (for a discussion of  $r \ge .70$  as indication of convergent validity, see Nunnally, 1967).

# Comparing Global and Composite Scales' Correlations with External Variables

To compare the construct validity of the global satisfaction scales with that of the composite satisfaction scales, we computed the mean of the absolute values of each of the seven job satisfaction scales' correlations with the six external variables.

		Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
Glo	bal scales															
1	OJS	4.99	1.43	(.87)	1.00	.93	.77	.83	.80	.87	58	.68	.84	.66	.16	37
2	MOAQ-JSS	5.24	1.49	.90	(.86)	.96	.75	.80	.79	.85	54	.61	.83	.62	.18	35
3	Single-item Faces	5.14	1.67	.72	.74	NA	.86	.79	.79	.80	57	.49	.76	.86	.18	24
Con	nposite scales															
4	AJDI	2.13	0.74	.69	.67	.68	(.91)	.83	.84	.84	56	.65	.72	.72	.15	22
5	JSS	4.13	0.93	.76	.73	.64	.78	(.95)	.94	.82	70	.69	.77	.64	.08	35
6	FSS	4.55	1.05	.72	.71	.63	.77	.88	(.92)	.84	59	.72	.80	.59	.20	25
7	MSQ	3.68	0.69	.78	.76	.64	.77	.77	.78	(.92)	50	.76	.80	.67	.33	19
Othe	er variables															
8	OCS	1.94	0.92	53	49	46	52	66	55	47	(.93)	48	41	50	.22	.61
9	Social Support	5.03	1.26	.61	.55	.39	.60	.65	.67	.70	45	(.92)	.73	.49	.31	25
10	Affective Organizational Commitment	4.53	1.60	.75	.74	.60	.66	.72	.74	.74	38	.67	(.91)	.58	.32	16
11	Life Satisfaction	5.19	1.63	.51	.48	.59	.57	.52	.47	.53	40	.39	.46	NA	.20	35
12	OCB-C	2.91	0.83	.14*	.16	.14*	.14	.08	.18	.30	.20	.28	.29	.16	(.88)	.10
13	Organizational Withdrawal	1.65	0.85	33	31	19	20	33	23	18	.56	23	15	28	.09	(.90)

*Note.* N = 189. Cronbach's  $\alpha$  of each variable appear on the diagonal. Uncorrected correlations appear below the diagonal; corrected correlations appear above the diagonal. When computing the corrected correlations, we assumed that single-item measures had a reliability of .68 (see Wanous et al., 1997). Corrected correlations that exceed unity are reported as "1.00."

Correlations equal to and stronger than  $\pm$  .14 are significant at p < .05. Correlations equal to and stronger than  $\pm$  .19 are significant at p < .01

\*These correlations are  $\geq 0.143$  and are significant at p < 0.05

OJS Overall Job Satisfaction Scale, MOAQ-JSS Michigan Organizational Assessment Questionnaire-Job Satisfaction Scale, AJDI Abridged Job Descriptive Index, JSS Job Satisfaction Scale, FSS Facet Satisfaction Scale, MSQ Minnesota Satisfaction Questionnaire, OCS Organizational Constraints Scale, OCB-C Organizational Citizenship Behavior Checklist

These analyses produced several interesting findings. First, they show that the OJS (mean |r| = .48), MOAQ-JSS (mean |r| = .46), AJDI composite (mean |r| = .45), JSS composite (mean |r| = .49), FSS composite (mean |r| = .47), and MSQ composite (mean |r| = .49) yielded virtually identical mean correlations with the external variables, but that the single-item faces scale yielded a somewhat weaker mean correlation (mean |r| = .40). This suggests that the latter scale has somewhat lower construct validity than do the other six job satisfaction scales we included in study 2. To allow readers to further compare the validity of the study 2 job satisfaction scales, Figure 2 of the online supplemental file has interactive features allowing one to plot the results for any two job satisfaction scales.

Our primary goal in conducting these analyses was to compare the validity of the global scales with that of the composite scales. We found that the three global job satisfaction scales yielded a mean correlation with the six external variables (mean |r| = .44) that was virtually identical to the four composite job satisfaction scales' mean correlation with the six external variables (mean |r| = .47). These findings are similar to those of study 1 and they suggest that global scales and composite scales are equally effective at assessing general job satisfaction.

#### Modeling the Effects of Common-Method Variance

In an attempt to mitigate the effects of CMV, we used the same proactive design steps in study 2 that we used in study 1. And as in study 1, we tested for the influence of CMV using the correlational marker technique (Lindell & Whitney, 2001). Need for cognition (Cacioppo & Petty, 1982,  $\alpha = .89$ ) and self-monitoring (Snyder, 1974,  $\alpha = .89$ ) again served as our marker variables. We observed correlations between need for cognition and the focal variables ranged from |.10| to |.32|(mean |r| = .20) and we observed correlations between selfmonitoring and the focal variables ranging from |.00| to |.41| (mean |r| = .10). Only one of the 78 zero-order correlations between the study's variables changed from significant to non-significant when adjusting for CMV (the single-item faces scale's relationship with OCB). These analyses thus indicate that CMV did not seriously bias the study 2 results (see the on-line supplemental files for more details regarding the study 2 correlational marker analyses).

### **General Discussion**

Both of our studies found that composite job satisfaction scales converged well with global job satisfaction scales (mean *r* in study 1 = .72; mean *r* in study 2 = .70). We interpret this as evidence that the two types of scales assess essentially the same underlying construct. This interpretation conflicts

with that of other authors, who have suggested that composite and global scales are only moderately related (e.g., Highhouse & Becker, 1993; Ironson et al., 1989; Scarpello & Campbell, 1983). Can our interpretation of the current findings be reconciled with that of other authors? We believe that it can. Previous studies examining the strength of the relationship between composite and global scales have often used measures that have questionable construct validity. Highhouse and Becker, for example, examined the relationship between a single-item, ad hoc measure of global job satisfaction and an ad hoc measure of composite job satisfaction. Although they found that the two measures converged reasonably well (r =.64), they likely would have observed a stronger correlation had they used well-validated measures.

We also found that composite and global scales generally yielded similar relationships with the external variables included in our nomological network, thus suggesting that the two types of scales are equally effective at assessing general job satisfaction. The current studies, therefore, contribute to the job satisfaction literature in several ways. First, they extend previous findings regarding the composite job satisfaction-global job satisfaction relationship (e.g., Highhouse & Becker, 1993; Ironson et al., 1989; Scarpello & Campbell, 1983) by comparing how these two types of scales relate to several hypothesized predictors, correlates, and consequences of general job satisfaction. Second, the current studies used several exemplars of both types of job satisfaction scales, thus ensuring that our findings were not specific to a small set of measures. This contrasts with previous studies, which have often included only one composite scale and one global scale (e.g., Highhouse & Becker, 1993).

#### Implications

Our findings have important implications for how both academic researchers and practitioners measure job satisfaction. Although some researchers have argued against the use of composite scales (e.g., Dalal, 2013; Ironson et al., 1989), we found that they appear to assess general job satisfaction as effectively as global scales do. As a result, researchers should not summarily discount past findings from studies that used composite scales. The current research also provides guidance for researchers who work with previously collected data: Our findings suggest that it is appropriate to use composite scales to assess general job satisfaction when global satisfaction data are unavailable, a situation that can occur when working with archival or organizational datasets.

Despite the apparent equivalence of global and composite scales, however, brevity is a clear strength of most global scales. The MOAQ-JSS (Cammann et al., 1979) and the abridged OJS (Brayfield & Rothe, 1951), for instance, comprised three items and five items, respectively. These two scales were among the better performing measures within

our studies and they are much shorter than are most composite scales, such as the MSQ (Weiss et al., 1967; 20 items), the AJDI (Stanton et al., 2002; 25 items), and the JSS (Spector, 1985; 36 items). The brevity of global scales is particularly appealing, in light of research linking excessive questionnaire length to poor data quality (see Gibson & Bowling, 2020).

In addition to providing insights into the validity of composite and global scales more generally, our findings also provide insights into the validity of particular job satisfaction scales. Within both of our studies, we found that the singleitem faces scale (Kunin, 1955) performed somewhat more poorly than did the other job satisfaction scales. This finding may be largely attributable to the fact that single-item measures generally have poorer reliability—and hence poorer validity—than do multi-item measures. Thus, despite arguments in favor of single-item job satisfaction measures (see Nagy, 2002; Wanous et al., 1997), we discourage their use.

#### Limitations

Both of our studies used self-report, cross-sectional data. Although such data have limitations (e.g., self-reports may be vulnerable to CMV and cross-sectional data are ineffective at testing causal relationships), they provide an appropriate means for comparing the construct validity of composite job satisfaction and global job satisfaction scales. First, the objective of our research was to examine correlations involving job satisfaction scales. This goal was not undermined by our inability to test causal effects. Second, CMV is likely to affect both composite scales and global scales equally; it is therefore unlikely that our reliance on self-report measures influenced the findings more for one type of job satisfaction measure than for the other type. Furthermore, our correlational marker analyses suggest that CMV had minimal effects on the results of both studies 1 and 2. That said, future efforts to examine the relative validity of different job satisfaction scales could benefit from the inclusion of criterion data not based on self-reports, such as supervisor ratings or objective measures of inrole performance, OCB, CWB, and withdrawal behaviors. The inclusion of such criterion measures would address CMV and would circumvent various limitations associated with self-reports, such as participants misremembering their own behavior or socially desirable responding (see Paulhus, 1984).

Finally, both of our studies used data collected from MTurk participants—a data source that has grown in popularity within recent years (see Landers & Behrend, 2015). This raises the question of whether our findings can be generalized to other types of samples. We do not believe this is a serious problem. First, our samples were composed of heterogeneous sets of employees and as a result are likely more representative of "workers in general" than is the case when more traditional organizational samples are used. Furthermore, the correlations we observed (see Tables 2 and 3) generally mirror previous research findings—suggesting that our two MTurk studies both produced results that are similar to those of studies using other types of samples. This is consistent with previous research suggesting that MTurk samples generally produce results that are similar to those obtained using other data sources (Behrend et al., 2011; Casler et al., 2013; Walter et al., 2019). We thus conclude that our reliance on MTurk samples is not a serious limitation.

## Summary

In order to assess general job satisfaction, researchers often compute composite scales by summing participants' scores across multiple facets (for examples of this practice, see Klein et al., 2014; Liu et al., 2012; Piening et al., 2013; Schleicher et al., 2015; Swider et al., 2011). Although some researchers have argued in support of composite satisfaction scales (e.g., Spector, 1985; Weiss et al., 1967), others have argued that such measures should be abandoned in favor of global job satisfaction scales (e.g., Dalal, 2013; Ironson et al., 1989). This raises an important question: How does the construct validity of composite satisfaction scales compare with that of global satisfaction scales? To address this question, we developed a nomological network that identified several hypothesized predictors, correlates, and consequences of general job satisfaction. We then used this network as the basis for our two studies, both of which examined the relative construct validity of global satisfaction and composite satisfaction scales. In these studies, we found that the two types of job satisfaction measures were equally effective at measuring general job satisfaction. These findings thus support the use of composite satisfaction scales.

**Supplementary Information** The online version contains supplementary material available at https://doi.org/10.1007/s10869-021-09739-2.

**Declarations** This manuscript is not under review elsewhere nor have we used the data reported in this manuscript in prior publications. We followed ethical guides when conducting this research. IRB approval was sought and granted for this study.

**Conflict of Interest** The authors declare that they have no conflict of interest.

# References

Arnold, T., & Spell, C. S. (2006). The relationship between justice and benefits satisfaction. *Journal of Business and Psychology*, 20(4), 599–620.

- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497–529.
- Beehr, T. A., Glaser, K. M., Beehr, M. J., Beehr, D. E., Wallwey, D. A., & Erofeev, D. (2006). The nature of satisfaction with subordinates: Its predictors and importance to supervisors. *Journal of Applied Social Psychology*, *36*, 1523–1547.
- Behrend, T. S., Sharek, D. J., Meade, A. W., & Wiebe, E. N. (2011). The viability of crowdsourcing for survey research. *Behavior Research Methods*, 43, 800–813.
- Bennett, R. J., & Robinson, S. L. (2000). Development of a measure of workplace deviance. *Journal of Applied Psychology*, 85, 349–360.
- Berry, C. M., Carpenter, N. C., & Barratt, C. L. (2012). Do other-reports of counterproductive work behavior provide an incremental contribution over self-reports? A meta-analytic comparison. *Journal of Applied Psychology*, 97, 613–636.
- Bowling, N. A. (2018). The social psychology of employee well-being: A needs-based perspective. In J. E. Maddux (Ed.), *Subjective wellbeing and life satisfaction* (pp. 272–289). Routledge.
- Bowling, N. A., Alarcon, G. M., Bragg, C. B., & Hartman, M. J. (2015). A meta-analytic examination of the potential correlates and consequences of workload. *Work & Stress, 29*, 95–113.
- Bowling, N. A., & Beehr, T. A. (2006). Workplace harassment from the victim's perspective: A theoretical model and meta-analysis. *Journal* of Applied Psychology, 91, 998–1012.
- Bowling, N. A., Eschleman, K. J., & Wang, Q. (2010). A meta-analytic examination of the relationship between job satisfaction and subjective well-being. *Journal of Occupational and Organizational Psychology*, 83, 915–934.
- Bowling, N. A., & Hammond, G. D. (2008). A meta-analytic examination of the construct validity of the Michigan Organizational Assessment Questionnaire Job Satisfaction Subscale. *Journal of Vocational Behavior*, 73, 63–77.
- Bowling, N. A., Khazon, S., Alarcon, G. M., Blackmore, C. E., Bragg, C. B., Hoepf, M. R., Barelka, A., Kennedy, K., Wang, Q., & Li, H. (2017). Building better measures of role ambiguity and role conflict: The validation of new role stressor scales. *Work & Stress*, 31, 1–23.
- Bowling, N. A., Wagner, S. W., & Beehr, T. A. (2018). *The Facet Satisfaction Scale*: An effective affective measure of job satisfaction facets. *Journal of Business and Psychology*, 33, 383–403.
- Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. Journal of Applied Psychology, 35, 307–311.
- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. Journal of Personality and Social Psychology, 42, 116–131.
- Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). The Michigan Organizational Assessment Questionnaire (Unpublished manuscript). University of Michigan, Ann Arbor, MI.
- Casler, K., Bickel, L., & Hackett, E. (2013). Separate but equal? A comparison of participants and data gathered via Amazon's MTurk, social media, and face-to-face behavioral testing. *Computers in Human Behavior*, 29, 2156–2160.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98, 310–357.
- Conway, J. M., & Lance, C. E. (2010). What reviewers should expect from authors regarding common method bias in organizational research. *Journal of Business and Psychology*, 25, 325–334.
- Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52, 281–302.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31, 874–900.
- Dalal, R. S. (2005). A meta-analysis of the relationship between organizational citizenship behavior and counterproductive work behavior. *Journal of Applied Psychology*, 90, 1241–1255.
- Dalal, R. S. (2013). Job attitudes: Cognition and affect. In I. B. Weiner, N. Schmitt, & S. Highhouse (Eds.), (Vol. Eds.) Handbook of

*Psychology: Vol. 12. Industrial and Organizational Psychology* (pp. 341–366). John Wiley & Sons.

- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49, 71–75.
- Eschleman, K. J., Charlton, R., Michel, J., Ching, S., & Hale, W. (2020). The development of the Person-Centered Support Scale for the workplace. Poster presented at: SIOP Virtual 2020 Conference. June 16-30. Virtual Conference.
- Farrell, D., & Stamm, C. L. (1988). Meta-analysis of the correlates of employee absence. *Human Relations*, 41, 211–227.
- Fried, Y., & Ferris, G. R. (1987). The validity of the job characteristics model: A review and meta-analysis. *Personnel Psychology*, 40, 287–322.
- Gibson, A. M., & Bowling, N. A. (2020). The effects of questionnaire length and behavioral consequences on careless responding. *European Journal of Psychological Assessment, 36*, 410–420.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. American Sociological Review, 25, 161–178.
- Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, 26, 463–488.
- Gruys, M. L., & Sackett, P. R. (2003). Investigating the dimensionality of counterproductive work behavior. *International Journal of Selection and Assessment*, 11, 30–42.
- Hackman, J. R., & Oldham, G. R. (1975). Development of the Job Diagnostic Survey. *The Journal of Applied Psychology*, 60, 159– 170.
- Hackman, J. R., & Oldham, G. R. (1980). Work Redesign. Reading, MA: Addison-Wesley.
- Hanisch, K. A., & Hulin, C. L. (1990). Job attitudes and organizational withdrawal: An examination of retirement and other voluntary withdrawal behaviors. *Journal of Vocational Behavior*, 37, 60–78.
- Harrison, D. A., Newman, D. A., & Roth, P. L. (2006). How important are job attitudes? Meta-analytic comparisons of integrative behavioral outcomes and time sequences. *Academy of Management Journal*, 49, 305–325.
- Highhouse, S., & Becker, A. S. (1993). Facet measures and global job satisfaction. *Journal of Business and Psychology*, 8, 117–127.
- Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. Organizational Research Methods, 1, 104–121.
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology*, 50, 337–421.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1–55.
- Hulin, C. L. (1991). Adaptation, persistence, and commitment in organizations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (Vol. 2, pp. 445–505). Palo Alto, CA: Consulting Psychologists Press.
- Ironson, G. H., Smith, P. C., Brannick, M. T., Gibson, W. M., & Paul, K. B. (1989). Construction of a job in general scale: A comparison of global, composite, and specific measures. *Journal of Applied Psychology*, 74, 193–200.
- Jex, S. M., Beehr, T. A., & Roberts, C. K. (1992). The meaning of occupational stress items to survey respondents. *Journal of Applied Psychology*, 77, 623–628.
- Judge, T. A., Locke, E. A., Durham, C. C., & Kluger, A. N. (1998). Dispositional effects on job and life satisfaction: The role of core evaluations. *Journal of Applied Psychology*, 83, 17–34.

- Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction-job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, 127, 376–407.
- Kam, C. C. S., & Chan, G. H. H. (2018). Examination of the validity of instructed response items in identifying careless respondents. *Personality and Individual Differences*, 129, 83–87.
- Kim, T. Y., Lin, X. W., & Leung, K. (2015). A dynamic approach to fairness: Effects of temporal changes of fairness perceptions on job attitudes. *Journal of Business and Psychology*, 30, 163–175.
- Kinicki, A. J., McKee-Ryan, F. M., Schriesheim, C. A., & Carson, K. P. (2002). Assessing the construct validity of the Job Descriptive Index: A review and meta-analysis. *Journal of Applied Psychology*, 87, 14–32.
- Kishton, J. M., & Widaman, K. F. (1994). Unidimensional versus domain representative parceling of questionnaire items: An empirical example. *Educational and Psychological Measurement*, 54, 757–765.
- Klein, H. J., Becker, T. E., & Meyer, J. P. (2012). Commitment in organizations: Accumulated wisdom and new directions. Routledge.
- Klein, H. J., Cooper, J. T., Molloy, J. C., & Swanson, J. A. (2014). The assessment of commitment: Advantages of a unidimensional, targetfree approach. *Journal of Applied Psychology*, 99, 222–238.
- Kunin, T. (1955). The Construction of a New Type of Attitude Measure 1. Personnel Psychology, 8, 65–77.
- Landers, R. N., & Behrend, T. S. (2015). An inconvenient truth: Arbitrary distinctions between organizational, Mechanical Turk, and other convenience samples. *Industrial and Organizational Psychology*, 8, 142–164.
- Lee, K., & Allen, N. J. (2002). Organizational citizenship behavior and workplace deviance: The role of affect and cognitions. *Journal of Applied Psychology*, 87, 131–142.
- LePine, J. A., Erez, A., & Johnson, D. E. (2002). The nature and dimensionality of organizational citizenship behavior: A critical review and meta-analysis. *Journal of Applied Psychology*, 87, 52–65.
- Lindell, M. K., & Whitney, D. J. (2001). Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology*, 86, 114–121.
- Litman, L., Robinson, J., & Abberbock, T. (2017). TurkPrime. com: A versatile crowdsourcing data acquisition platform for the behavioral sciences. *Behavior Research Methods*, 49(2), 433–442.
- Little, T. D., Rhemtulla, M., Gibson, K., & Schoemann, A. M. (2013). Why the items versus parcels controversy needn't be one. *Psychological Methods*, 18, 285–300.
- Liu, D., Mitchell, T. R., Lee, T. W., Holtom, B. C., & Hinkin, T. R. (2012). When employees are out of step with coworkers: How job satisfaction trajectory and dispersion influence individual-and unitlevel voluntary turnover. *Academy of Management Journal*, 55, 1360–1380.
- Marsh, H. W., Hau, K., & Grayson, D. (2005). Goodness of Fit in Structural Equation Models. In A. Maydeu-Olivares & J. J. McArdle (Eds.), Contemporary psychometrics (pp. 275–340). Lawrence Erlbaum Associates Publishers.
- Matsunaga, M. (2008). Item parceling in structural equation modeling: A primer. Communication Methods and Measures, 2, 260–293.
- Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological Methods*, 17, 437–455.
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, 78, 538–551.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61, 20–52.
- Nagy, M. S. (2002). Using a single-item approach to measure facet job satisfaction. *Journal of Occupational and Organizational Psychology*, 75, 77–86.

Nunnally, J. C. (1967). Psychometric theory. McGraw-Hill.

- Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. *Science*, 349, 1–8.
- Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, 48, 775–802.
- Pashler, H., & Wagenmakers, E. J. (2012). Editors' introduction to the special section on replicability in psychological science a crisis of confidence? *Perspectives on Psychological Science*, 7, 528–530.
- Paulhus, D. L. (1984). Two-component models of socially desirable responding. *Journal of Personality and Social Psychology*, 46, 598–609.
- Piening, E. P., Baluch, A. M., & Salge, T. O. (2013). The relationship between employees' perceptions of human resource systems and organizational performance: Examining mediating mechanisms and temporal dynamics. *Journal of Applied Psychology*, 98, 926– 947.
- Pindek, S., & Spector, P. E. (2016). Organizational constraints: a metaanalysis of a major stressor. Work & Stress, 30, 7–25.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879–903.
- Porter, L. W., Steers, R. M., Mowday, F. T., & Boulian, P. V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59, 603– 609.
- Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*, 15, 150–163.
- Roznowski, M., & Hulin, C. (1992). The scientific merit of valid measures of general constructs with special reference to job satisfaction and job withdrawal. In C. J. Cranny, P. C. Smith, & E. F. Stone (Eds.), *Job satisfaction* (pp. 123–163). Lexington.
- Russell, S. S., Spitzmuller, C., Lin, L. R., Stanton, J. M., Smith, P. C., & Ironson, G. H. (2004). Shorter can also be better: The Abridged Job in General Scale. *Educational and Psychological Measurement*, 64, 878–893.
- Sackett, P. R. (2002). The structure of counterproductive work behaviors: Dimensionality and relationships with facets of job performance. *International Journal of Selection and Assessment*, 10, 5–11.
- Scarpello, V., & Campbell, J. P. (1983). Job satisfaction: Are all the parts there? *Personnel Psychology*, 36, 577–600.
- Schleicher, D. J., Smith, T. A., Casper, W. J., Watt, J. D., & Greguras, G. J. (2015). It's all in the attitude: The role of job attitude strength in job attitude–outcome relationships. *Journal of Applied Psychology*, 100, 1259–1274.
- Seggewiss, B. J., Boeggemann, L. M., Straatmann, T., Mueller, K., & Hattrup, K. (2019). Do values and value congruence both predict commitment? A refined multi-target, multi-value investigation into a challenged belief. *Journal of Business and Psychology*, 34, 169– 187.
- Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). Measurement of satisfaction in work and retirement. Rand-McNally.
- Snyder, M. (1974). Self-monitoring of expressive behavior. Journal of Personality and Social Psychology, 30, 526–537.
- Spector, P. E. (1985). Measurement of human service staff satisfaction: Development of the job satisfaction survey. *American Journal of Community Psychology*, 13, 693–713.
- Spector, P. E. (1997). Job Satisfaction: Applications, Assessment, Causes and Consequences. Sage.
- Spector, P. E., Bauer, J. A., & Fox, S. (2010). Measurement artifacts in the assessment of counterproductive work behavior and organizational citizenship behavior: Do we know what we think we know? *Journal of Applied Psychology*, 95, 781–790.
- Spector, P. E., Fox, S., Penney, L. M., Bruursema, K., Goh, A., & Kessler, S. (2006). The dimensionality of counterproductivity: Are

all counterproductive behaviors created equal? Journal of Vocational Behavior, 68, 446-460.

- Spector, P. E., & Jex, S. M. (1998). Development of four self-report measures of job stressors and strain: interpersonal conflict at work scale, organizational constraints scale, quantitative workload inventory, and physical symptoms inventory. *Journal of Occupational Health Psychology*, 3, 356–367.
- Stanton, J. M., Sinar, E. F., Balzer, W. K., Julian, A. L., Thoresen, P., Aziz, S., Fisher, G. G., & Smith, P. C. (2002). Development of a compact measure of job satisfaction: The abridged Job Descriptive Index. *Educational and Psychological Measurement*, 62, 173–191.
- Straub, D., Boudreau, M. C., & Gefen, D. (2004). Validation guidelines for IS positivist research. *Communications of the Association for Information Systems*, 13, 380–427.
- Swider, B. W., Boswell, W. R., & Zimmerman, R. D. (2011). Examining the job search–turnover relationship: The role of embeddedness, job satisfaction, and available alternatives. *Journal of Applied Psychology*, 96, 432–441.

- Viswesvaran, C., Sanchez, J. I., & Fisher, J. (1999). The role of social support in the process of work stress: A meta-analysis. *Journal of Vocational Behavior*, 54, 314–334.
- Walter, S. L., Seibert, S. E., Goering, D., & O'Boyle, E. H. (2019). A tale of two sample sources: Do results from online panel data and conventional data converge? *Journal of Business and Psychology*, 34, 425–452.
- Wanous, J. P., Reichers, A. E., & Hudy, M. J. (1997). Overall job satisfaction: how good are single-item measures? *Journal of Applied Psychology*, 82, 247–252.
- Weiss, D. J., Dawis, R. V., England, G. W., & Lofquist, L. H. (1967). Manual for the Minnesota Satisfaction Questionnaire. Minnesota Studies on Vocational Rehabilitation, 22. University of Minnesota.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.