Journal of Occupational and Organizational Psychology (2010), 83, 915–934
© 2010 The British Psychological Society

The British Psychological Society

www.bpsjournals.co.uk

A meta-analytic examination of the relationship between job satisfaction and subjective well-being

Nathan A. Bowling*, Kevin J. Eschleman and Qiang Wang

Department of Psychology, Wright State University, Dayton, Ohio, USA

The current meta-analysis examined the relationship between job satisfaction and subjective well-being (SWB). Consistent with the spillover hypothesis, we found positive relationships between job satisfaction and life satisfaction, happiness, positive affect, and the absence of negative affect. In addition, an examination of longitudinal studies suggested that the causal relationship from SWB to job satisfaction was stronger than the causal relationship from job satisfaction to SWB.

Subjective well-being (SWB) is an inclusive term used to refer to life satisfaction, happiness, the presence of positive affect, and the absence of negative affect (DeNeve & Cooper, 1998; Diener, Suh, Lucas, & Smith, 1999; Okun, Stock, & Covey, 1982). Although organizational research has consistently found that job satisfaction is related to each of the above subdimensions of SWB (Tait, Padgett, & Baldwin, 1989; Thoresen, Kaplan, Barsky, Warren, & de Chermont, 2003; Van de Vliert & Janssen, 2002), the magnitude of these relationships has been found to vary considerably from study to study. Research on the job satisfaction-life satisfaction relationship, for example, has yielded correlations ranging from .16 (Crohan, Antonucci, Adelmann, & Coleman, 1989; Susskind, Borchgrevink, Kacmar, & Brymer, 2000) to .68 (Van de Vliert & Janssen, 2002). Similarly, the strength of job satisfaction's relationships with happiness (see Judge & Hulin, 1993; Warr, Cook, & Wall, 1979), positive affect (see Curhan, Elfenbein, & Kilduff, 2009; Ilies, Scott, & Judge, 2006), and the absence of negative affect (see Fisher, 2000; Van Katwyk, Fox, Spector, & Kelloway, 2000) are highly inconsistent across studies.

The objective of the current study is to use meta-analysis to provide a quantitative review of the relationship between job satisfaction and SWB. The use of meta-analysis will allow us to examine whether inconsistencies across studies in the strength of the job satisfaction-SWB relationship is due to either substantive moderators or is instead due to statistical artifacts (see Hunter & Schmidt, 2004). We also conducted meta-analysis of longitudinal samples in an effort to explore the causal nature of the job satisfaction-SWB relationship.

*Correspondence should be addressed to Professor Nathan A. Bowling, Department of Psychology, Wright State University, 3640 Colonel Glenn Highway, Dayton, OH 45435-0001, USA (e-mail: nathan.bowling@wright.edu).

DOI:10.1348/096317909X478557

Conceptualizations of SWB

Specific conceptualizations of SWB, which include both cognitive (e.g., life satisfaction) and affective dimensions (e.g., happiness, the presence of positive affect, and the absence of negative affect), are similar to one another in that each involves subjective appraisals of one's own life that are independent of objective life conditions (e.g., health, virtue, or wealth; DeNeve & Cooper, 1998; Diener, 1984; Diener & Eunkook, 1997). Conceptually, dimensions of SWB are expected to be strongly related to each other, a prediction that has been supported by prior research (Barsky, Thoresen, Warren, & Kaplan, 2004; Judge & Locke, 1993; Piccolo, Judge, Takahashi, Watanabe, & Locke, 2005). Cognitive dimensions of SWB, for example, are expected to be positively related to affective dimensions of SWB because both involve evaluations of one's life and because cognition and affect in general are typically strongly associated (Zajonc, 1980). Because prior research supports the practice of examining different SWB facets as related but separate constructs (Diener *et al.*, 1999; Lucas, Diener, & Suh, 1996), we separately examine life satisfaction, happiness, positive affect, and negative affect.

Relationship between job satisfaction and SWB

Several studies have examined the relationships between job satisfaction and the subdimensions of SWB. A meta-analysis by Tait *et al.* (1989), for example, found a corrected correlation of .44 between job satisfaction and life satisfaction ($k = 57$, $N = 19,811$). More recently, a meta-analysis by Thoresen *et al.* (2003) found that job satisfaction was related to both positive affect ($\rho = .34$, $k = 79$, $N = 23,419$) and the absence of negative affect ($\rho = .34$, $k = 176$, $N = 59,733$). Other research has found that job satisfaction is positively associated with happiness (Michalos & Orlando, 2006; Weaver, 1978). The positive relationships found in the above studies may indicate that job satisfaction is a subdimension of SWB, as some researchers have suggested (Judge & Locke, 1993; Judge, Locke, Durham, & Kluger, 1998; Locke, 1976; Near, Rice, & Hunt, 1978; Rice, Near, & Hunt, 1980). Known as the part-whole theory, this explanation suggests a causal relationship from job satisfaction to SWB.

A second possibility is that SWB represents a person's general predisposition to experience particular emotions and these predispositions can influence one's satisfaction towards specific domains, such as work (Diener, 1984; Headey, Veenhoven, & Wearing, 1991; Judge & Hulin, 1993; Judge & Watanabe, 1993). This prediction is consistent with the dispositional approach to job satisfaction (Dormann & Zapf, 2001; Staw & Ross, 1985; Steel & Rentsch, 1997) and suggests a causal relationship from SWB to job satisfaction.

Finally, these findings are also consistent with the spillover hypothesis, which suggests that the experiences from one life domain have corresponding influences on the experiences in other life domains (Judge, Parker, Colbert, Heller, & Ilies, 2001; Judge & Watanabe, 1994; Kabanoff, 1980; Near, Rice, & Hunt, 1987; Near *et al.*, 1978; Rain, Lane, & Steiner, 1991; Rice *et al.*, 1980; Wilensky, 1960). Positive experiences at work, for instance, may contribute to satisfaction in non-work domains, such as the marital or leisure domains.

Based on these explanations and the above research findings, we expected that job satisfaction will be positively related to SWB.

Hypothesis 1: Job satisfaction will be positively related to SWB.

Not all forms of job satisfaction are expected to be equally related to SWB. Specifically, we predict that global job satisfaction will yield stronger relationships with SWB than will job satisfaction facets (i.e., satisfaction with work itself, supervision, co-workers, pay, and promotional opportunities). This prediction is based on the principle of compatibility (Fishbein & Ajzen, 1974), which suggests that the relationship between two variables will be strongest when both are assessed at the same level of specificity. Because global job satisfaction and SWB are relatively broader than the job satisfaction facets, the strongest job satisfaction–SWB relationships will be found when global rather than facet job satisfaction is assessed.

To illustrate this further, one could think of both SWB and job satisfaction as existing within a hierarchy. SWB, which is the broadest or most high-level construct within the hierarchy, is composed of several medium-level subdimensions, one of which is global job satisfaction (examples of other medium-level subdimensions include marital satisfaction, leisure satisfaction, and health satisfaction). The job satisfaction facets, which are subdimensions of global job satisfaction, exist at the lowest level of the hierarchy. Because they are located relatively close to each other on the hierarchy, global job satisfaction is expected to have a relatively strong relationship with SWB. The relationships between the job satisfaction facets and SWB, on the other hand, are expected to be weak because they are located on different ends of the hierarchy.

> *Hypothesis 2:* Global job satisfaction will yield stronger relationships with SWB than will job satisfaction facets.

Causal nature of the relationship between job satisfaction and SWB

The causal nature of the relationship between job satisfaction and SWB has not been clearly established. As suggested above, the part-whole theory posits that job satisfaction has a causal effect on SWB (Hart, 1999; Judge & Locke, 1993; Judge *et al.*, 1998; Locke, 1976), whereas the dispositional approach posits that SWB has a causal effect on job satisfaction (Diener, 1984; Headey *et al.*, 1991; Judge & Hulin, 1993; Judge & Watanabe, 1993).

Longitudinal studies have been used to examine the causal relationship between job satisfaction and SWB. This research has primarily used two waves of data collection to examine: (a) whether initial job satisfaction predicts subsequent SWB after initial SWB is controlled and (b) whether initial SWB predicts subsequent job satisfaction after initial job satisfaction is controlled.

Some of these studies have found significant relationships between initial job satisfaction and subsequent SWB, which has been interpreted as evidence of causal effects from job satisfaction to SWB (e.g., Chacko, 1983; Orpen, 1978). Other studies have found significant relationships between initial SWB and subsequent job satisfaction, which suggests a causal relationship from SWB to job satisfaction (Headey *et al.*, 1991; Schmitt & Mellon, 1980). Still other studies have found that initial job satisfaction was related to subsequent SWB and that initial SWB was related to subsequent job satisfaction (Judge, Boudreau, & Bretz, 1994; Judge & Watanabe, 1993; Keon & McDonald, 1982; Schmitt & Bedeian, 1982). This latter finding has been interpreted as evidence of a reciprocal relationship between job satisfaction and SWB. Given these inconsistencies in the longitudinal research findings, we used meta-analysis to examine the causal nature of the relationship between job satisfaction and SWB. We made no *a priori* predictions about these analyses, thus we consider them to be exploratory.

Comparison between the current meta-analysis and prior SWB meta-analyses

Prior meta-analyses have examined the relationship between job satisfaction and SWB. Although recent meta-analyses of positive affectivity and the absence of negative affectivity indicate a positive association with job satisfaction (Connolly & Viswesvaran, 2000; Thoresen *et al.*, 2003) and facets of job satisfaction (Bowling, Hendricks, & Wagner, 2008), several limitations exist with these meta-analyses. Specifically, the prior meta-analyses included assessments of personality traits (Bowling *et al.*, 2008; Connolly & Viswesvaran, 2000; Thoresen *et al.*, 2003), affect that was contaminated with questions pertaining to the job (Connolly & Viswesvaran, 2000; Thoresen *et al.*, 2003), and did not distinguish between global and facet job satisfaction (Connolly & Viswesvaran, 2000; Thoresen *et al.*, 2003).

The current study also focuses on life satisfaction and happiness, which have not been examined in relationship to job satisfaction by recent meta-analyses. As noted above, a prior meta-analysis (Tait *et al.*, 1989) examined the relationship between job satisfaction and life satisfaction. Thus, it is important to note how the current study improves upon and extends that prior meta-analysis. First, because Tait *et al.* was published nearly two decades ago, our database of primary studies is much larger than that of Tait *et al.* Second, Tait *et al.* did not distinguish between different types of job satisfaction (e.g., global vs. facet). Finally, we have excluded several studies from Tait *et al.*'s original meta-analysis. Specifically, we believe that some life satisfaction measures they included have suspect validity (i.e., Kavanagh & Halpern, 1977; Miller, 1940; Weitz, 1952). Additional studies that we excluded include a sample of retirees (Schmitt, White, Coyle, & Rauschenberger, 1979), a student sample (Bhagat & Chassie, 1978), and a sample that was used in two studies that appears to be double counted (see Schmitt & Bedeian, 1982; Schmitt & Mellon, 1980).

Method

We used meta-analysis to examine the relationship between job satisfaction and SWB. In the following sections, we discuss our literature search strategy, inclusion criteria, and the methods we used to conduct the meta-analyses.

Literature search

We used the PsycINFO computer database to conduct our initial literature search. This search included studies published from 1967 to 2008. In this search, we used the term 'job satisfaction' in combination with either 'life satisfaction', 'happiness', 'affect', 'affectivity', or 'subjective well-being'. We identified additional relevant samples by reviewing the reference sections of the studies we found during the PsycINFO search. We also found relevant samples by reviewing the reference section in Bowling *et al.* (2008), Connolly and Viswesvaran (2000), Rice *et al.* (1980), Tait *et al.* (1989), and Thoresen *et al.* (2003). Combined, these search strategies yielded a total of 223 samples that were included in our analyses.

Inclusion criteria

Each of the studies included in the current meta-analysis measured at least one form of job satisfaction (i.e., global job satisfaction, facet job satisfaction) and at least one of the

targeted forms of SWB (i.e., global life satisfaction, happiness, affect). Only published studies using samples of employed adults were included in the analyses.

Meta-analytic method

We used Hunter and Schmidt's (2004) method to conduct the meta-analyses. Specifically, we computed the sample-weighted mean corrected correlation between job satisfaction and SWB. In all of the analyses, we corrected for unreliability in both the job satisfaction and SWB measures. We used artefact distributions to estimate missing reliability data. In addition, to detect the possibility of moderation, we computed the percentage of variance across studies attributable to artifacts. If the percentage of variance due to artifacts was less than 75%, potential moderating variables were considered. We computed 95% confidence intervals to test the significance of each uncorrected correlation. If the confidence interval excluded zero, the relationship was deemed statistically significant.

Types of job satisfaction measures

We conducted analyses using global job satisfaction, individual job satisfaction facets, and composite measures consisting of a combination of job satisfaction facets. Examples of global job satisfaction scales used in the primary studies included the Job in General Scale (Ironson, Smith, Brannick, Gibson, & Paul, 1989), Faces Scale (Kunin, 1955), and Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1983). The job satisfaction facets that we examined were satisfaction with work itself, satisfaction with supervision, satisfaction with co-workers, satisfaction with pay, and satisfaction with promotion. The Job Descriptive Index (Smith, Kendall, & Hulin, 1969) was the most common measure used in the primary studies to assess job satisfaction facets.

We used the formula from Hunter and Schmidt (2004) to compute composite job satisfaction measures. Following Judge and Bono (2001), we computed composites for primary studies that reported two or more job satisfaction facets. Additionally, the short form of the Minnesota Satisfaction Questionnaire (Weiss, Dawis, England, & Lofquist, 1967) was coded as a composite job satisfaction measure because this measure consists of the sum of 20 individual facet-level items.

Types of SWB measures

The primary studies also included several different types of SWB measures, including life satisfaction, happiness, positive affect, and negative affect. Examples of global life satisfaction measures that were included in our analyses were the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) and an adapted version of the Faces Scale (Kunin, 1955). Examples of happiness measures included the Fordyce Happiness Scale (Fordyce, 1988) and Underwood and Froming's (1980) scale. In some cases, researchers measured SWB with scales that included both happiness and life satisfaction items (e.g., Brief & Hollenbeck, 1985). Because life satisfaction and happiness are distinct components of SWB (Diener, 1984), we elected to exclude these studies from the current meta-analysis. Positive affect and negative affect scales included the positive and negative affect schedule (PANAS; Watson, Clark, & Tellegen, 1988). The PANAS assesses the frequency of affective experiences over a period of time, which can include 'right now', 'past day', 'past few days', 'past few weeks', 'past year', or 'in general'.

All versions of the PANAS were meta-analysed. Because SWB researchers are primarily interested in the assessment of long-term moods (Diener *et al.*, 1999), we excluded personality traits (e.g., trait extraversion, trait neuroticism, trait anxiety) and experiences of discrete of emotions (e.g., state depression, state anxiety).

Cross-lag regression analyses

We examined studies that assessed job satisfaction and SWB at two time points so that we could examine the causal nature of the relationship between job satisfaction and SWB. For these analyses, we widened our literature search to include unpublished manuscripts. Eight published and three unpublished samples were examined in this meta-analysis. It should be noted that two studies were included in these longitudinal analyses that were omitted from the primary meta-analyses (Judge & Watanabe, 1993; Schmitt & Mellon, 1980) because the samples overlap with larger cross-sectional studies (Judge & Watanabe, 1994; Schmitt & Bedian, 1982). SWB was assessed using measures of life satisfaction, happiness, and affect. When a study included more than one assessment of SWB (e.g., both positive and negative affect), a coin toss was conducted to randomly select a SWB scale to avoid double counting the sample.

To perform the meta-analytic regression analyses, we followed the method used by Riketta (2008). Specifically, we conducted meta-analyses of the relationships between: (a) initial job satisfaction and subsequent job satisfaction, (b) initial SWB and subsequent SWB, (c) initial job satisfaction and subsequent SWB, (d) initial SWB and subsequent job satisfaction, (e) initial job satisfaction and initial SWB, and (f) subsequent job satisfaction and subsequent SWB. The corrected correlations obtained in these analyses were used to conduct cross-lag regression analyses.

Results

Relationships of global, facet, and composite job satisfaction with SWB

Life satisfaction

Table 1 presents the relationships of global, facet, and composite job satisfaction with life satisfaction. Consistent with Hypothesis 1, each type of job satisfaction yielded a significant positive relationship with life satisfaction. Specifically, the analyses yielded positive relationships for global job satisfaction ($\rho = .48$, $k = 53$, $N = 29,404$), satisfaction with work itself ($\rho = .21$, $k = 11$, $N = 2,477$), satisfaction with supervision ($\rho = .20$, $k = 11$, $N = 2,085$), satisfaction with co-workers ($\rho = .23$, $k = 11$, $N = 2,085$), satisfaction with pay ($\rho = .21$, $k = 10$, $N = 1,578$), satisfaction with promotion ($\rho = .14$, $k = 10$, $N = 1,578$), and composite job satisfaction ($\rho = .36$, $k = 22$, $N = 6,046$). It is important to note that the percentage of variance explained by artefacts was less than 75% for each form of job satisfaction, which is indicative of moderator effects (Hunter & Schmidt, 2004).

Happiness

Table 1 also presents the relationships of global, facet, and composite job satisfaction with happiness. Consistent with Hypothesis 1, job satisfaction generally yielded a positive relationship with happiness. Specifically, the analyses yielded significant positive relationships for global job satisfaction ($\rho = .43$, $k = 15$, $N = 9,924$),

Table 1. Meta-analyses of the relationships of global, facet, and composite job satisfaction with life satisfaction and happiness

Job satisfaction variable	*k*	*N*	Mean *r*	SD_r	Mean ρ	SD_ρ	95% confidence interval	% Variance artefacts
Life satisfaction								
Global job satisfaction	53	29,404	.40	0.10	.48	0.12	.37, .43	13.93
Satisfaction with work itself	11	2,477	.18	0.16	.21	0.18	.09, .27	14.16
Satisfaction with supervision	11	2,085	.17	0.08	.20	0.09	.12, .22	44.04
Satisfaction with co-workers	11	2,085	.20	0.07	.23	0.08	.16, .24	45.00
Satisfaction with pay	10	1,578	.17	0.11	.21	0.14	.10, .24	30.52
Satisfaction with promotion	10	1,578	.12	0.07	.14	0.08	.08, .16	54.06
Facet satisfaction composite	22	6,046	.31	0.12	.36	0.13	.26, .36	19.28
Happiness								
Global job satisfaction	15	9,924	.36	0.09	.43	0.11	.31, .41	13.12
Satisfaction with work itself	3	747	.31	0.00	.35	0.00	.31, .31	100.00
Satisfaction with supervision	2	484	.17	0.00	.19	0.00	.17, .17	100.00
Satisfaction with co-workers	2	484	.14	0.00	.16	0.00	.14, .14	100.00
Satisfaction with pay	2	484	−.02	0.28	−.02	0.09	−.41, .37	4.93
Satisfaction with promotion	2	484	.11	0.07	.12	0.08	.01, .21	40.47
Facet satisfaction composite	3	866	.31	0.12	.39	0.12	.17, .45	21.02

Note. *k*, number of samples; *N*, total sample size; mean *r*, average weighted correlation coefficient; mean ρ, average weighted correlation coefficient corrected for unreliability in both the predictor and criterion; % variance artefacts, percentage of variance explained by artefacts. Facet satisfaction composite is the composite of two or more job satisfaction facets.

satisfaction with work itself ($\rho = .35$, $k = 3$, $N = 747$), satisfaction with supervision ($\rho = .19$, $k = 2$, $N = 484$), satisfaction with co-workers ($\rho = .16$, $k = 2$, $N = 484$), satisfaction with promotion ($\rho = .12$, $k = 2$, $N = 484$), and composite job satisfaction ($\rho = .39$, $k = 3$, $N = 866$), whereas satisfaction with pay ($\rho = -.02$, $k = 2$, $N = 484$) had a non-significant relationship with happiness. We should further note that artefacts accounted for less than 75% of the variance in effects sizes for the global job satisfaction studies, which suggests the presence of moderators (Hunter & Schmidt, 2004).

Affect

Table 2 presents the relationships of global, facet, and composite job satisfaction with positive affect and the absence of negative affect. Consistent with Hypothesis 1, job satisfaction generally yielded a positive relationship with forms of affect. Specifically, the analyses for positive affect yielded significant positive relationships for global job satisfaction ($\rho = .44$, $k = 47$, $N = 12,343$), satisfaction with work itself ($\rho = .36$, $k = 3$, $N = 626$), satisfaction with promotion ($\rho = .21$, $k = 2$, $N = 338$), and composite job satisfaction ($\rho = .37$, $k = 12$, $N = 3,059$), whereas satisfaction with supervision ($\rho = .17$, $k = 2$, $N = 338$), satisfaction with co-workers ($\rho = .05$, $k = 2$, $N = 338$), and satisfaction with pay ($\rho = .12$, $k = 3$, $N = 495$) had non-significant relationships with positive affect.

The absence of negative affect yielded significant positive relationships for global job satisfaction ($\rho = .32$, $k = 56$, $N = 15,662$), satisfaction with work itself ($\rho = .33$, $k = 3$, $N = 626$), satisfaction with supervision ($\rho = .26$, $k = 2$, $N = 338$), satisfaction with co-workers ($\rho = .23$, $k = 2$, $N = 338$), satisfaction with pay ($\rho = .24$, $k = 2$, $N = 338$),

Table 2. Meta-analyses of the relationships of global, facet, and composite job satisfaction with positive and negative affect

Job satisfaction variable	*k*	*N*	Mean *r*	SD_r	Mean ρ	SD_ρ	95% confidence interval	% Variance artefacts
Positive affect								
Global job satisfaction	47	12,343	.38	0.13	.44	0.13	.34, .42	18.38
Satisfaction with work itself	3	626	.32	0.09	.36	0.05	.21, .43	57.39
Satisfaction with supervision	2	338	.14	0.11	.17	0.08	−.02, .30	49.47
Satisfaction with co-workers	2	338	.04	0.04	.05	0.00	−.02, .10	100.00
Satisfaction with pay	3	495	.10	0.16	.12	0.16	−.09, .29	22.21
Satisfaction with promotion	2	338	.18	0.05	.21	0.00	.11, .25	100.00
Facet satisfaction composite	12	3,059	.30	0.06	.37	0.02	.26, .34	86.56
Absence of negative affect								
Global Job satisfaction	56	15,662	.27	0.09	.32	0.09	.24, .30	33.38
Satisfaction with work itself	3	626	.30	0.07	.33	0.00	.22, .38	100.00
Satisfaction with supervision	2	338	.23	0.11	.26	0.10	.07, .39	40.08
Satisfaction with co-workers	2	338	.20	0.01	.23	0.00	.18, .22	100.00
Satisfaction with pay	2	338	.20	0.14	.24	0.14	.01, .39	26.28
Satisfaction with promotion	2	338	.12	0.14	.15	0.14	−.08, .32	26.98
Facet satisfaction composite	12	3,347	.32	0.09	.39	0.09	.27, .37	36.47

Note. *k*, number of samples; *N*, total sample size; mean *r*, average weighted correlation coefficient; mean ρ, average weighted correlation coefficient corrected for unreliability in both the predictor and criterion; % variance artefacts, percentage of variance explained by artefacts. Facet satisfaction composite is the composite of two or more job satisfaction facets.

and composite job satisfaction ($\rho = .39$, $k = 12$, $N = 3,347$), whereas satisfaction with promotion ($\rho = .15$, $k = 2$, $N = 338$) had a non-significant relationships with the absence of negative affect. Similar to the effects sizes between global job satisfaction and both life satisfaction and happiness, artefacts accounted for less than 75% of the variance, which suggests the presence of moderators (Hunter & Schmidt, 2004). Overall, support was found for Hypothesis 1.

Partial support was also found for Hypothesis 2, which predicted that global job satisfaction would yield stronger relationships with SWB than would the facet measures of job satisfaction. To examine the significance of these differential relationships, we compared the confidence intervals for the respective correlations. If the confidence intervals did not overlap with each other, then the relationships were interpreted as significantly different. As shown in Table 1, the global job satisfaction-life satisfaction relationship was significantly stronger than the relationships for satisfaction with work itself, supervisors, co-workers, promotion, and composite job satisfaction. In addition, the relationship between global job satisfaction and happiness is significantly stronger than the relationships for satisfaction with supervision, co-workers, and promotion, but was not significantly stronger than satisfaction with work itself, pay, or composite satisfaction.

As shown in Table 2, the global job satisfaction-positive affect relationship was significantly stronger than the relationships for satisfaction with supervisors, co-workers, promotion, and composite job satisfaction, but not significantly stronger than satisfaction with work itself. In addition, the relationship between global job satisfaction and the absence of negative affect is significantly stronger than the relationships for

satisfaction with co-workers, but not significantly stronger than satisfaction with work itself, supervision, pay, promotions, or composite satisfaction.

Causal nature of the relationship between job satisfaction and SWB

We used cross-lag regression analyses to examine the causal nature of the relationship between job satisfaction and SWB. To conduct these analyses, we fist meta-analysed the relationships (Table 3; $k = 11$, $N = 2,867$ for all relationships) between Time 1 SWB and Time 1 job satisfaction ($\rho = .42$), Time 1 SWB and Time 2 job satisfaction ($\rho = .40$), Time 2 SWB and Time 1 job satisfaction ($\rho = .34$), Time 2 SWB and Time 2 job satisfaction ($\rho = .47$), Time 1 SWB and Time 2 SWB ($\rho = .70$), and Time 1 job satisfaction and Time 2 job satisfaction ($\rho = .66$). As with the moderator analyses, we examined the life satisfaction, happiness, and affect studies together.

Table 3. Meta-analyses of longitudinal studies

Meta-analysed variables		Mean r	SD_r	Mean ρ	SD_ρ	95% confidence interval	% Variance artefacts
SWB Time 1	Job satisfaction Time 1	.36	0.09	.42	0.08	.30, .42	43.41
SWB Time 1	Job satisfaction Time 2	.34	0.09	.40	0.08	.28, .40	43.12
SWB Time 2	Job satisfaction Time 1	.29	0.10	.34	0.09	.23, .35	35.25
SWB Time 2	Job satisfaction Time 2	.40	0.08	.47	0.07	.35, .45	43.55
SWB Time 1	SWB Time 2	.61	0.12	.70	0.13	.54, .68	13.22
Job satisfaction Time 1	Job satisfaction Time 2	.52	0.16	.66	0.15	.42, .62	11.77

Note. Number of samples = 11; total sample size = 2,867; SWB, subjective well-being; mean r, average weighted correlation coefficient; mean ρ, average weighted correlation coefficient corrected for unreliability in both the predictor and criterion; % variance artefacts, percentage of variance explained by artefacts. SWB includes measures of life satisfaction, happiness, and affect.

The meta-analytic regression analyses used to test the causal nature of the job satisfaction-SWB relationship are reported in Table 4. SWB significantly related to subsequent job satisfaction ($\beta = 0.15$, $p < .01$), while controlling for initial job satisfaction. Likewise, job satisfaction significantly related to subsequent SWB ($\beta = 0.06$, $p < .01$), while controlling for initial SWB. Although these results are consistent with a reciprocal relationship between job satisfaction and SWB, they suggest that the effect of SWB on job satisfaction may be stronger than the effect of job satisfaction on SWB.

Table 4. Regression analyses: subsequent job satisfaction or SWB regressed on preceding job satisfaction and SWB

Time 2 variable	β, job satisfaction Time 1	β, SWB Time 1	R^2
Job satisfaction Time 2	0.60 (39.26)**	0.15 (9.79)**	.45**
SWB Time 2	0.06 (3.81)**	0.68 (46.13)**	.49**

Note. $N = 2,867$; $k = 11$; β, standardized path coefficients, with t scores in parentheses. *$p < .05$; **$p < .01$.

Discussion

Consistent with the spillover hypothesis (Judge *et al.*, 2001; Judge & Watanabe, 1994; Kabanoff, 1980; Near *et al.*, 1978, 1987; Rain *et al.*, 1991; Rice *et al.*, 1980; Wilensky, 1960), we found that job satisfaction was positively related to SWB. This finding is in line with previous meta-analytic findings suggesting that job satisfaction is related to life satisfaction (Tait *et al.*, 1989) and to positive and negative affect (Bowling *et al.*, 2008; Connolly & Viswesvaran, 2000; Thoresen *et al.*, 2003).

Unlike previous meta-analyses, however, we examined differential relationships for global job satisfaction and job satisfaction facets. These analyses found that global job satisfaction yielded a stronger relationship with SWB than did the facets of job satisfaction. This provides support for the compatibility principle, which predicts that the relationship between two variables is enhanced when both are assessed at the same level of specificity (Fishbein & Ajzen, 1974). In this case, we believe that the job satisfaction facets yielded relatively weak relationships with SWB because they were relatively narrow constructs. Global job satisfaction, on the other hand, yielded a relatively strong relationship with SWB because both variables are relatively broad.

As discussed above, life satisfaction, happiness, the presence of positive affect, and the absence of negative affect have been identified as distinct dimensions of SWB (Lucas *et al.*, 1996). If they are in fact distinct, then one may expect them to be differentially related to job satisfaction. Although we found that life satisfaction, happiness, and positive affect each yielded similar relationships with global job satisfaction, the absence of negative affect was significantly weaker in strength that the other three SWB constructs. As a whole, this may suggest that life satisfaction, happiness, and positive affect are similar to each other, but distinct from negative affect (however, see Lucas *et al.*, 1996).

Causal nature of the relationship between job satisfaction and SWB

Finally, we conducted longitudinal analyses in order to examine the causal nature of the relationship between job satisfaction and SWB. Although these analyses found evidence that the job satisfaction-SWB relationship may be reciprocal, the effects of SWB on job satisfaction may be stronger than the effect of job satisfaction on SWB. A causal path from SWB to job satisfaction is consistent with the dispositional explanation (Diener, 1984; Headey *et al.*, 1991; Judge & Hulin, 1993; Judge & Watanabe, 1993), which suggests that SWB represents a general tendency to experience particular emotions and that this predisposition influences satisfaction towards specific domains, such as work.

Future research

Although much attention has been given to the job satisfaction-SWB relationship, many unanswered questions remain. First, research is needed to examine the hierarchical nature of SWB and its subdimensions. As discussed above, SWB is the highest-level construct within this hierarchy. Medium-level constructs within the hierarchy include global job satisfaction, marital satisfaction, family satisfaction, and health satisfaction. The lowest-level constructs in the hierarchy include facets of the medium-level variables. Facets of job satisfaction, for instance, include satisfaction with work itself, supervision, co-workers, pay, and promotional opportunities (Smith *et al.*, 1969). Because the current meta-analysis focused on the job satisfaction-SWB relationship,

we examined only a portion of the hierarchy. Additional research is needed to examine other aspects of the hierarchy, such as medium- and low-level non-work constructs.

More longitudinal research examining the relationship between job satisfaction and SWB is also needed. Although analyses included in the current study examined two-wave longitudinal designs, longitudinal research is needed that employs four or more waves. Such designs would allow research to use more advanced statistical analyses, such as latent growth modelling (Chan, 1998), to examine the relationship between temporal changes in job satisfaction and SWB.

Research is also needed to examine the moderators of the relationship between job satisfaction and SWB. As suggested in the introduction, the strength of the job satisfaction–SWB relationship varies considerably across studies. The results of our meta-analysis suggest that this inconsistency is not simply the product of statistical artefacts. Instead, substantive moderators may influence the relationship between job satisfaction and SWB. Indeed, several different moderators have been proposed, such as gender (Tait *et al.*, 1989), occupation (Bamundo & Kopelman, 1980), and job involvement (Wiener, Muczyk, & Martin, 1992).

Limitations

A few limitations should be noted of the current study. First, the samples included in our meta-analysis primarily used self-report measures [only one sample (Judge & Ilies, 2004) used non-self-report measures]. It is thus possible that our findings were influenced by common-method variance. We should note, however, that there is some evidence that common-method variance may generally not be as serious a problem as many researchers have assumed (Spector, 2006). Indeed, the use of self-report measures may be especially appropriate for assessing job satisfaction and SWB, given the self-reflective nature of these two constructs.

A second potential limitation is that the current meta-analysis primarily used published samples. Publication bias resulting from the exclusion of unpublished studies could result in inflated correlations between job satisfaction and SWB (Rosenthal, 1979). This, however, may not be a serious concern for the current meta-analysis because the job satisfaction–SWB relationship was not the main focus of many of the primary studies included in our analyses. In other words, the publication of many of the studies was not dependent upon a significant relationship between job satisfaction and SWB. Furthermore, an inspection of the funnel plots (Egger, Smith, Schneider, & Minder, 1997; Hunter & Schmidt, 2004) for our data did not suggest the presence of publication bias.[1] A final limitation results for the relatively small k of some of our analyses. In particular, the ks are small for the relationships between job satisfaction facets and happiness and affect. These analyses should thus be interpreted with caution.

Summary

The current meta-analysis found a significant relationship between job satisfaction and SWB. We conducted longitudinal analyses to examine the causal nature of this relationship. Despite the progress made in this area, we encourage future research examining the nature of the job satisfaction–SWB relationship.

---

[1] *A funnel plot is a scatter plot that depicts the effect size of each study on the x-axis and the sample size of each study on the y-axis. In the absence of publication bias, a funnel plot will appear roughly symmetrical.*

References

*Refers to all studies included in the meta-analysis.

*Ackerman, S., Zuroff, D. C., & Moskowitz, D. S. (2000). Generativity in midlife and young adults: Links to agency, communion, and subjective well-being. *International Journal of Aging and Human Development, 50*, 17-41.

*Adler, S., & Golan, J. (1981). Lateness as a withdrawal behavior. *Journal of Applied Psychology, 66*, 544-554.

*Agho, A. O., Mueller, C. W., & Price, J. L. (1993). Determinants of employee job satisfaction: An empirical test of a causal model. *Human Relations, 46*, 1007-1027.

*Alfonso, V. C., Allison, D. B., & Rader, D. E. (1996). The extended satisfaction with life scale: Development and psychometric properties. *Social Indicators Research, 38*(3), 275-301.

*Andrews, F. M., & Withey, S. B. (1974). Developing measures of perceived life quality. *Social Indicators Research, 1*, 1-26.

*Aryee, S., Fields, D., & Luk, V. (1999). A cross-cultural test of a model of the work-family interface. *Journal of Management, 25*(4), 491-511.

*Aryee, S., Luk, V., Leung, A., & Lo, S. (1999). Role stressors, interrole conflict, and well-being: The moderating influence of spousal support and coping behaviors among employed parents in Hong Kong. *Journal of Vocational Behavior, 54*, 259-278.

*Ayres, J., & Malouff, J. M. (2007). Problem-solving training to help workers increase positive affect, job satisfaction, and life satisfaction. *European Journal of Work and Organizational Psychology, 16*, 279-294.

*Aziz, S., & Zickar, M. J. (2006). A cluster analysis investigation of workaholism as a syndrome. *Journal of Occupational Health Psychology, 11*, 52-62.

*Bamundo, P. J., & Kopelman, R. E. (1980). The moderating effects of occupation, age, and urbanization on the relationship between job satisfaction and life satisfaction. *Journal of Vocational Behavior, 17*, 106-123.

*Barsky, A., Thoresen, C. J., Warren, C. R., & Kaplan, S. A. (2004). Modeling negative affectivity and job stress: A contingency-based approach. *Journal of Organizational Behavior, 25*, 915-936.

Bhagat, R. S., & Chassie, M. B. (1978). The role of self-esteem and locus of control in the differential prediction of performance, program satisfaction and life satisfaction in an educational organization. *Journal of Vocational Behavior, 13*, 317-326.

*Bharadwaj, L., & Wilkening, E. A. (1977). The prediction of perceived well-being. *Social Indicators Research, 4*, 421-439.

*Bond, F. W., & Bunce, D. (2003). The role of acceptance and job control in mental health, job satisfaction, and work performance. *Journal of Applied Psychology, 88*, 1057-1067.

Bowling, N. A., Hendricks, E. A., & Wagner, S. H. (2008). Positive and negative affectivity and facet satisfaction: A meta-analysis. *Journal of Business and Psychology, 23*, 105-125.

*Brayfield, A. H., Wells, R. V., & Strate, M. W. (1957). Interrelations among measures of job satisfaction and general satisfaction. *Journal of Applied Psychology, 41*, 201-2005.

*Breaux, D. M., Munyon, T. P., Hochwarter, W. A., & Ferris, G. R. (2009). Politics as a moderator of the accountability-job satisfaction relationship: Evidence across three studies. *Journal of Management, 35*, 307-326.

*Brief, A. P., Burke, M. J., George, J. M., Robinson, B. S., & Webster, J. (1988). Should negative affectivity remain an unmeasured variable in the study of job stress? *Journal of Applied Psychology, 73*, 193-198.

Brief, A. P., & Hollenbeck, J. R. (1985). Work and the quality of life. *International Journal of Psychology, 20*, 199-206.

*Bryant, R. M., & Constantine, M. G. (2006). Multiple role balance, job satisfaction, and life satisfaction in women school counselors. *Professional School Counseling, 9*, 265-271.

Cammann, C., Fichman, M., Jenkins, G. D., & Klesh, J. R. (1983). Assessing the attitudes and perceptions of organizational members. In S. E. Seashore, E. E. Lawler, P. H. Mirvis, & C. Cammann (Eds.), *Assessing organizational change* (pp. 71-138). New York: Wiley.

*Campbell, A., Converse, P. E., & Rogers, W. (1976). *The quality of American life: Perceptions, evaluations, and satisfactions*. New York: Russell Sage Foundation.

*Carlson, D. S., & Kacmar, K. M. (2000). Work-family conflict in the organization: Do life role values make a difference? *Journal of Management, 26*, 1031-1054.

*Cassar, V., & Tattersall, A. (1998). Occupational stress and negative affectivity in Maltese nurses: Testing moderating influences. *Work and Stress, 12*, 85-94.

Chacko, T. I. (1983). Job and life satisfaction: A causal analysis of their relationships. *Academy of Management Journal, 26*, 163-169.

Chan, D. (1998). The conceptualization and analysis of change over time: An integrative approach incorporating longitudinal mean and covariance structures analysis (LMACS) and multiple indicator latent growth modeling (MLGM). *Organizational Research Methods, 1*, 421-483.

*Chan, D. (2001). Method effects of positive affectivity, negative affectivity, and impression management in self-reports of work attitudes. *Human Performance, 14*, 77-96.

*Chen, H., Chu, C., Wang, Y., & Lin, L. (2008). Turnover factors revisited: A longitudinal study of Taiwan-based staff nurses. *International Journal of Nursing Studies, 45*, 277-285.

Connolly, J. J., & Viswesvaran, C. (2000). The role of affectivity in job satisfaction: A meta-analysis. *Personality and Individual Differences, 29*, 265-281.

*Cortina, L. M., Fitzgerald, L. F., & Drasgow, F. (2002). Contextualizing Latina experiences of sexual harassment: Preliminary tests of a structural model. *Basic and Applied Social Psychology, 24*, 295-311.

*Cramer, D. (1995). Life and job satisfaction: A two-wave panel study. *Journal of Psychology: Interdisciplinary and Applied, 129*, 261-267.

*Crede, M., Chernyshenko, O. S., Stark, S., Dalal, R. S., & Bashshur, M. (2007). Job satisfaction as mediator: An assessment of job satisfaction's position within the nomological network. *Journal of Occupational and Organizational Psychology, 80*, 515-538. doi:10.1348/096317906X136180

*Crohan, S. E., Antonucci, T. C., Adelmann, P. K., & Coleman, L. M. (1989). Job characteristics and well-being at midlife: Ethnic and gender comparisons. *Psychology of Women Quarterly, 13*, 223-235.

*Cropanzano, R., James, K., & Konovsky, M. A. (1993). Dispositional affectivity as a predictor of work attitudes and job performance. *Journal of Organizational Behavior, 14*, 595-606.

*Curhan, J. R., Elfenbein, H. A., & Kilduff, G. J. (2009). Getting off on the right foot: Subjective value versus economic value in predicting longitudinal job outcomes from job offer negotiations. *Journal of Applied Psychology, 94*, 524-534.

*De Cuyper, N., & De Witte, H. (2006). The impact of job insecurity and contract type on attitudes, well-being and behavioural reports: A psychological contract perspective. *Journal of Occupational and Organizational Psychology, 79*(3), 395-409. doi:10.1348/096317905X53660

*DeLoach, R. (2003). Job satisfaction among hospice interdisciplinary team members. *American Journal of Hospice and Palliative Care, 20*, 434-440.

DeNeve, K. M., & Cooper, H. (1998). The happy personality: A meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin, 124*, 197-229.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*, 542-575.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71-75.

Diener, E., & Eunkook, S. (1997). Measuring quality of life: Economic, social, and subjective indicators. *Social Indicators Research, 40*, 189-216.

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*, 276-302.

*Dolbier, C. L., Webster, J. A., McCalister, K. T., Mallon, M. W., & Steinhardt, M. A. (2005). Reliability and validity of a single-item measure of job satisfaction. *American Journal of Health Promotion, 19*, 194-198.

*Dormann, C., Fay, D., Zapf, D., & Frese, M. (2006). A state-trait analysis of job satisfaction: On the effect of core self-evaluations. *Applied Psychology: An International Review, 55*, 27-51.

Dormann, C., & Zapf, D. (2001). Job satisfaction: A meta-analysis of stabilities. *Journal of Organizational Behavior, 22*, 483-504.

*Duran, M. A., Extremera, N., Montalban, F. M., & Rey, L. (2005). Engagement y burnout en el ambito docente: Analisis de sus relaciones con la satisfaccion laboral y vital en una muestra de profesores. *Revista De Psicologia Del Trabajo y De Las Organizaciones, 21*, 145-158.

Egger, M., Smith, G. D., Schneider, M., & Minder, C. (1997). Bias in meta-analysis detected by a simple, graphical test. *British Medical Journal, 315*, 629-634.

*Ellis, A. L., & Riggle, E. D. B. (1996). The relation of job satisfaction and degree of openness about one's sexual orientation for lesbians and gay men. *Journal of Homosexuality, 30*, 75-85.

*Enchautegui-de-Jesus, N., Hughes, D., Johnston, K. E., & Oh, H. J. (2006). Well-being in the context of workplace ethnic diversity. *Journal of Community Psychology, 34*, 211-223.

*Feldman, D. C., & Turnley, W. H. (1995). Underemployment among recent business college graduates. *Journal of Organizational Behavior, 16*, 691-706.

Fishbein, M., & Ajzen, I. (1974). Attitudes towards objects as predictors of single and multiple behavioral criteria. *Psychological Review, 81*, 59-74.

*Fisher, C. D. (2000). Mood and emotions while working: Missing pieces of job satisfaction? *Journal of Organizational Behavior, 21*, 185-202.

*Fogarty, G. J., Machin, M. A., Albion, M. J., Sutherland, L. F., Lalor, G. I., & Revitt, S. (1999). Predicting occupational strain and job satisfaction: The role of stress, coping, personality, and affectivity variables. *Journal of Vocational Behavior, 54*, 429-452.

Fordyce, M. W. (1988). A review of research on the happiness measures: A sixty second index of happiness and mental health. *Social Indicators Research, 20*, 355-381.

*Gallagher, V. C., & Laird, M. D. (2008). The combined effect of political skill and political decision making on job satisfaction. *Journal of Applied Social Psychology, 38*, 2336-2360.

*George, J. M. (1991). Time structure and purpose as a mediator of work-life linkages. *Journal of Applied Social Psychology, 21*, 296-314.

*Gheldof, E. L. M., Vinck, J., Van den Bussche, E., Vlaeyen, J. W. S., Hidding, A., & Crombez, G. (2006). Pain and pain-related fear are associated with functional and social disability in an occupational setting: Evidence of mediation by pain-related fear. *European Journal of Pain, 10*, 513-525.

*Glomb, T. M., Munson, L. J., Hulin, C. L., Bergman, M. E., & Drasgow, F. (1999). Structural equation models of sexual harassment: Longitudinal explorations and cross-sectional generalizations. *Journal of Applied Psychology, 84*, 14-28.

*Gritzmacher, J. E. (1993). Satisfaction with home-based employment. *Journal of Family and Economic Issues, 14*, 145-161.

*Harris, S. G., & Mossholder, K. W. (1996). The affective implications of perceived congruence with culture dimensions during organizational transformation. *Journal of Management, 22*, 527-547.

*Hart, P. M. (1999). Predicting employee life satisfaction: A coherent model of personality, work, and nonwork experiences, and domain satisfactions. *Journal of Applied Psychology, 84*, 564-584.

Headey, B., Veenhoven, R., & Wearing, A. (1991). Top-down versus bottom-up theories of subjective well-being. *Social Indicators Research, 24*, 81-100.

*Heller, D., Judge, T. A., & Watson, D. (2002). The confounding role of personality and trait affectivity in the relationship between job and life satisfaction. *Journal of Organizational Behavior, 23*, 815-835.

*Heller, D., & Watson, D. (2005). The dynamic spillover of satisfaction between work and marriage: The role of time and mood. *Journal of Applied Psychology, 90*, 1273-1279.

*Hochwarter, W. A., Laird, M. D., & Brouer, R. L. (2008). Board up the windows: The interactive effects of hurricane-induced job stress and perceived resources on work outcomes. *Journal of Management, 34*, 263-289.

*Hochwarter, W. A., Perrewé, P. L., Ferris, G. R., & Brymer, R. A. (1999). Job satisfaction and performance: The moderating effects of value attainment and affective disposition. *Journal of Vocational Behavior, 54*, 296-313.

*Hochwarter, W. A., Perrewé, P. L., Meurs, J. A., & Kacmar, C. (2007). The interactive effects of work-induced guilt and ability to manage resources on job and life satisfaction. *Journal of Occupational Health Psychology, 12*, 125-135.

*Hochwarter, W. A., & Treadway, D. C. (2003). The interactive effects of negative and positive affect on the politics perceptions-job satisfaction relationship. *Journal of Management, 29*, 551-567.

*Houghton, J. D., & Jinkerson, D. L. (2007). Constructive thought strategies and job satisfaction: A preliminary examination. *Journal of Business and Psychology, 22*, 45-53.

*Huelsman, T. J., Munz, D. C., & Furr, R. M. (2003). The role of affect as a mediator variable: An application to organizational psychology. *Individual Differences Research, 1*, 173-188.

*Hulin, C. L. (1969). Source of variation in job and life satisfaction: The role of community and job-related variables. *Journal of Applied Psychology, 53*, 279-291.

Hunter, J. E., & Schmidt, F. L. (2004). *Methods of meta-analysis: Correcting error and bias in research findings*. Thousand Oaks, CA: Sage.

*Ilies, R., Scott, B. A., & Judge, T. A. (2006). The interactive effects of personal traits and experienced states on intraindividual patterns of citizenship behavior. *Academy of Management Journal, 49*, 561-575.

*Iris, B., & Barrett, G. V. (1972). Some relations between job and life satisfaction and job importance. *Journal of Applied Psychology, 56*, 301-304.

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.

*Iverson, R. D., & Maguire, C. (2000). The relationship between job and life satisfaction: Evidence from a remote mining community. *Human Relations, 53*, 807-839.

*James, M., Treadway, D. C., Conner, D., & Hochwarter, W. A. (2005). The interactive effects of positive affect and a sense of competency on the politics perceptions-job satisfaction relationship. *Journal of Applied Social Psychology, 35*, 798-820.

*Jeurissen, T., & Nyklicek, I. (2001). Testing the vitamin model of job stress in dutch health care workers. *Work and Stress, 15*, 254-264.

*Johnson, G. J., & Johnson, W. R. (2000). Perceived overqualification, positive and negative affectivity, and satisfaction with work. *Journal of Social Behavior and Personality, 15*, 167-184.

*Jones, J. R., & Schaubroeck, J. (2004). Mediators of the relationships between race and organizational citizenship behavior. *Journal of Managerial Issues, 16*, 505-527.

Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits - self-esteem, generalized self-efficacy, locus of control, and emotional stability - with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology, 86*, 80-92.

*Judge, T. A., Boudreau, J. W., & Bretz, R. D. (1994). Job and life attitudes of male executives. *Journal of Applied Psychology, 79*, 767-782.

*Judge, T. A., Heller, D., & Klinger, R. (2008). The dispositional sources of job satisfaction: A comparative test. *Applied Psychology: An International Review, 57*, 361-372.

*Judge, T. A., Higgins, C. A., Thoresen, C. J., & Barrick, M. R. (1999). The big five personality traits, general mental ability, and career success across the life span. *Personnel Psychology, 52*, 621-652.

*Judge, T. A., & Hulin, C. L. (1993). Job satisfaction as a reflection of disposition: A multiple source causal analysis. *Organizational Behavior and Human Decision Processes, 56*, 388-421.

*Judge, T. A., & Ilies, R. (2004). Affect and job satisfaction: A study of their relationship at work and at home. *Journal of Applied Psychology, 89*, 661-673.

*Judge, T. A., & Locke, E. A. (1993). Effect of dysfunctional thought processes on subjective well-being and job satisfaction. *Journal of Applied Psychology, 78*, 475-490.

*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., Parker, S., Colbert, A. E., Heller, D., & Ilies, R. (2001). Job satisfaction: A cross-cultural review. In N. Anderson, D. S. Ones, H. K. Sinangil, & C. Viswesvaran (Eds.), *Handbook of industrial, work and organizational psychology* (pp. 25-52). Thousand Oaks, CA: Sage.

*Judge, T. A., & Watanabe, S. (1993). Another look at the job satisfaction-life satisfaction relationship. *Journal of Applied Psychology, 78*, 939-948.

Judge, T. A., & Watanabe, S. (1994). Individual differences in the nature of the relationship between job and life satisfaction. *Journal of Occupational and Organizational Psychology, 67*, 101-107.

Kabanoff, B. (1980). Work and nonwork: A review of models, methods, and findings. *Psychological Bulletin, 88*, 60-77.

*Kacmar, K. M., Carlson, D. S., & Brymer, R. A. (1999). Antecedents and consequences of organizational commitment: A comparison of two scales. *Educational and Psychological Measurement, 59*, 976-994.

*Kantak, D. M., Futrell, C. M., & Sager, J. K. (1992). Job satisfaction and life satisfaction in a sales force. *Journal of Personal Selling and Sales Management, 12*, 1-7.

Kavanagh, M. J., & Halpern, M. (1977). The impact of job level and sex differences on the relationship between life and job satisfaction. *Academy of Management Journal, 20*, 66-73.

*Kelloway, E. K., Barling, J., & Shah, A. (1993). Industrial relations stress and job satisfaction: Concurrent effects and mediation. *Journal of Organizational Behavior, 14*, 447-457.

Keon, T. L., & McDonald, B. (1982). Job satisfaction and life satisfaction: An empirical evaluation of their interrelationship. *Human Relations, 35*, 167-180.

*Kim, S. W., Price, J. L., Mueller, C. W., & Watson, T. W. (1996). The determinants of career intent among physicians at a U.S. Air Force hospital. *Human Relations, 49*, 947-976.

*Kinman, G., & Griffin, M. (2008). Psychosocial factors and gender as predictors of symptoms associated with sick building syndrome. *Stress and Health: Journal of the International Society for the Investigation of Stress, 24*, 165-171.

*Kohan, A., & O'Connor, B. P. (2002). Police officer job satisfaction in relation to mood, well-being, and alcohol consumption. *Journal of Psychology: Interdisciplinary and Applied, 136*, 307-318.

*Kopelman, R. E., Greenhaus, J. H., & Connolly, T. F. (1983). A model of work, family, and interrole conflict: A construct validation study. *Organizational Behavior and Human Performance, 32*, 198-215.

*Kornhauser, W. (1965). *Mental health of the industrial worker: A Detroit study.* New York: Wiley.

Kunin, T. (1955). The construction of a new type of attitude measure. *Personnel Psychology, 8*, 65-77.

*Laird, M. D., Perryman, A. A., Hochwarter, W. A., Ferris, G. R., & Zinko, R. (2009). The moderating effects of personal reputation on accountability-strain relationships. *Journal of Occupational Health Psychology, 14*, 70-83.

*Landa, J. M. A., Lopez-Zafra, E., de Antoñana, R. M., & Pulido, M. (2006). Perceived emotional intelligence and life satisfaction among university teachers. *Psicothema, 18*, 152-157.

*Lee, C., & Farh, J. (1999). The effects of gender in organizational justice perception. *Journal of Organizational Behavior, 20*, 133-143.

*Linn, L. S., Yager, J., Cope, D. W., & Leake, B. (1986). Factors associated with life satisfaction among practicing internists. *Medical Care, 24*, 830-837.

*Liu, Y., Prati, L. M., Perrewé, P. L., & Ferris, G. R. (2008). The relationship between emotional resources and emotional labor: An exploratory study. *Journal of Applied Social Psychology, 38*, 2410-2439.

Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297-1343). Chicago, IL: Rand McNally.

*Lopes, P. N., Grewal, D., Kadis, J., Gall, M., & Salovey, P. (2006). Evidence that emotional intelligence is related to job performance and affect and attitudes at work. *Psicothema, 18*, 132-138.

*Lounsbury, J. W., Gordon, S. R., Bergermaier, R. L., & Francesco, A. M. (1982). Work and nonwork sources of satisfaction in relation to employee intention to turnover. *Journal of Leisure Research, 14*, 285-294.

Lucas, R. E., Diener, E., & Suh, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology, 71*, 616-628.

*Manning, M. R., Osland, J. S., & Osland, A. (1989). Work-related consequences of smoking cessation. *Academy of Management Journal, 32*, 606-621.

*Manning, M. R., Williams, R. F., & Wolfe, D. M. (1988). Hardiness and the relationship between stressors and outcomes. *Work and Stress, 2*, 205-216.

*Mayes, B. T., Barton, M. E., & Ganster, D. C. (1991). An exploration of the moderating effect of age on job stressors and employee strain relationships. *Journal of Social Behavior and Personality, 6*, 289-308.

*McCalister, K. T., Dolbier, C. L., Webster, J. A., Mallon, M. W., & Steinhardt, M. A. (2006). Hardiness and support at work as predictors of work stress and job satisfaction. *American Journal of Health Promotion, 20*, 183-191.

*Michalos, A. C., & Orlando, J. A. (2006). Quality of life of some under-represented survey respondents: Youth, aboriginals and unemployed. *Social Indicators Research, 79*, 191-213.

*Michel, J. S., & Clark, M. A. (2009). Has it been affect all along? A test of work-to-family and family-to-work models of conflict, enrichment, and satisfaction. *Personality and Individual Differences, 47*, 163-168.

Miller, D. C. (1940). Morale of college-trained adults. *American Sociological Review, 5*, 880-890.

*Moser, K., & Schuler, H. (2004). Is involvement a suppressor of the job satisfaction-life satisfaction relationship? *Journal of Applied Social Psychology, 34*, 2377-2388.

*Munz, D. C., Huelsman, T. J., Konold, T. R., & McKinney, J. J. (1996). Are there methodological and substantive roles for affectivity in job diagnostic survey relationships? *Journal of Applied Psychology, 81*, 795-805.

*Near, J. P., Rice, R. W., & Hunt, R. G. (1978). Work and extra-work correlates of life and job satisfaction. *Academy of Management Journal, 21*, 248-264.

Near, J. P., Rice, R. W., & Hunt, R. G. (1987). Job satisfaction and life satisfaction: A profile analysis. *Social Indicators Research, 19*, 383-401.

*Near, J. P., Smith, C. A., Rice, R. W., & Hunt, R. G. (1984). A comparison of work and nonwork predictors of life satisfaction. *Academy of Management Journal, 27*, 184-190.

*Niklas, C. D., & Dormann, C. (2005). The impact of state affect on job satisfaction. *European Journal of Work and Organizational Psychology, 14*, 367-388.

Okun, M. A., Stock, W. A., & Covey, R. E. (1982). Assessing the effects of older adult education on subjective well-being. *Educational Gerontology, 8*, 523-536.

Orpen, C. (1978). Work and nonwork satisfaction: A causal-correlational analysis. *Journal of Applied Psychology, 63*, 530-532.

*Penney, L. M., & Spector, P. E. (2005). Job stress, incivility, and counterproductive work behavior (CWB): The moderating role of negative affectivity. *Journal of Organizational Behavior, 26*, 777-796.

*Perrewé, P. L., Hochwarter, W. A., & Kiewitz, C. (1999). Value attainment: An explanation for the negative effects of work-family conflict on job and life satisfaction. *Journal of Occupational Health Psychology, 4*, 318-326.

*Perrone, K. M., Webb, L. K., & Jackson, Z. V. (2007). Relationships between parental attachment, work and family roles, and life satisfaction. *Career Development Quarterly, 55*, 237-248.

*Piccolo, R. F., Judge, T. A., Takahashi, K., Watanabe, N., & Locke, E. A. (2005). Core self-evaluations in Japan: Relative effects on job satisfaction, life satisfaction, and happiness. *Journal of Organizational Behavior, 26*, 965-984.

*Pietrzyk, U. (2001). Zusammenhang zwischen arbeit und kompetenzerleben. *Zeitschrift Fur Arbeits- Und Organisationspsychologie, 45*, 2-14.

*Posthuma, R. A., Joplin, J. R. W., & Maertz, C. P. (2005). Comparing the validity of turnover predictors in the United States and Mexico. *International Journal of Cross Cultural Management, 5*, 165-180.

*Prati, L. M., Liu, Y., Perrewé, P. L., & Ferris, G. R. (2009). Emotional intelligence as moderator of the surface acting-strain relationship. *Journal of Leadership and Organizational Studies, 15*, 368-380.

Rain, J. S., Lane, I. M., & Steiner, D. D. (1991). A current look at the job satisfaction/life satisfaction relationship: Review and future considerations. *Human Relations, 44*, 287-307.

Rice, R. W., Near, J. P., & Hunt, R. G. (1980). The job-satisfaction/life-satisfaction relationship: A review of empirical research. *Basic and Applied Social Psychology, 1*, 37-64.

Riketta, M. (2008). The causal relation between job attitudes and performance: A meta-analysis of panel studies. *Journal of Applied Psychology, 93*, 472-481.

*Robinson, J. P. (1977). *How Americans use time: A social-psychological analysis of everyday behavior.* New York: Praeger.

Rosenthal, R. (1979). The 'file drawer problem' and tolerance for null results. *Psychological Bulletin, 86*, 638-641.

*Rousseau, D. M. (1978). Relationship of work to nonwork. *Journal of Applied Psychology, 63*, 513-517.

*Rutherford, M. W., & Holt, D. T. (2007). Corporate entrepreneurship: An empirical look at the innovativeness dimension and its antecedents. *Journal of Organizational Change Management, 20*, 429-446.

*Scarpello, V., & Campbell, J. P. (1983). Job satisfaction: Are all the parts there? *Personnel Psychology, 36*, 577-600.

*Schell, B. H., Paine-Mantha, V. A., Markham, M. E., & Morrison, K. (1992). Stress-coping styles and personality descriptors of ice arena workers: Indicators of 'victims' or 'copers' of on-the-job stressors? *Journal of Vocational Behavior, 41*, 270-281.

Schmitt, N., & Bedeian, A. G. (1982). A comparison of LISREL and two-stage least squares analysis of a hypothesized life-job satisfaction reciprocal relationship. *Journal of Applied Psychology, 67*, 806-817.

*Schmitt, N., & Mellon, P. M. (1980). Life and job satisfaction: Is the job central? *Journal of Vocational Behavior, 16*, 51-58.

Schmitt, N., White, J. K., Coyle, B. W., & Rauschenberger, J. (1979). Retirement and life satisfaction. *Academy of Management Journal, 22*, 282-291.

*Shaw, J. D., Duffy, M. K., Mitra, A., Lockhart, D. E., & Bowler, M. (2003). Reactions to merit pay increases: A longitudinal test of a signal sensitivity perspective. *Journal of Applied Psychology, 88*, 538-544.

*Smith, D., & Tziner, A. (1998). Moderating effects of affective disposition and social support on the relationship between person-environment fit and strain. *Psychological Reports, 82*, 963-983.

Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). *The measurement of satisfaction in work and retirement: A strategy for the study of attitudes.* Chicago, IL: Rand McNally.

Spector, P. E. (2006). Method variance in organizational research. *Organizational Research Methods, 9*, 221-232.

*Spector, P. E., Fox, S., & Van Katwyk, P. T. (1999). The role of negative affectivity in employee reactions to job characteristics: Bias effect or substantive effect? *Journal of Occupational and Organizational Psychology, 72*, 205-218. doi:10.1348/096317999166608

Staw, B. M., & Ross, J. (1985). Stability in the midst of change: A dispositional approach to job attitudes. *Journal of Applied Psychology, 70*, 469-480.

Steel, R. P., & Rentsch, J. R. (1997). The dispositional model of job attitudes revisited: Findings of a 10-year study. *Journal of Applied Psychology, 82*, 873-879.

*Steiner, D. D., & Truxillo, D. M. (1987). Another look at the job satisfaction-life satisfaction relationship: A test of the disaggregation hypothesis. *Journal of Occupational Behaviour, 8*, 71-77.

*Sumer, H. C., & Knight, P. A. (2001). How do people with different attachment styles balance work and family? A personality perspective on work-family linkage. *Journal of Applied Psychology, 86*, 653-663.

*Susskind, A. M., Borchgrevink, C. P., Kacmar, K. M., & Brymer, R. A. (2000). Customer service employees' behavioral intentions and attitudes: An examination of construct validity and a path model. *International Journal of Hospitality Management, 19*, 53-77.

Tait, M., Padgett, M. Y., & Baldwin, T. T. (1989). Job and life satisfaction: A reevaluation of the strength of the relationship and gender effects as a function of the date of the study. *Journal of Applied Psychology, 74*, 502-507.

*Tepper, B. J. (2000). Consequences of abusive supervision. *Academy of Management Journal, 43*, 178-190.

Thoresen, C. J., Kaplan, S. A., Barsky, A., Warren, C. R., & de Chermont, K. (2003). The affective underpinnings of job perceptions and attitudes: A meta-analytic review and integration. *Psychological Bulletin, 129*, 914-945.

*Ton, M. N., & Hansen, J. C. (2001). Using a person-environment fit framework to predict satisfaction and motivation in work and marital roles. *Journal of Career Assessment, 9*, 315-331.

Underwood, B., & Froming, W. (1980). The mood survey: A personality measure of happy and sad moods. *Journal of Personality Assessment, 44*, 404-414.

*Van de Vliert, E., & Janssen, O. (2002). 'Better than' performance motives as roots of satisfaction across more and less developed countries. *Journal of Cross-Cultural Psychology, 33*, 380-397.

*Van Katwyk, P. T., Fox, S., Spector, P. E., & Kelloway, E. K. (2000). Using the Job-Related Affective Well-Being Scale (JAWS) to investigate affective responses to work stressors. *Journal of Occupational Health Psychology, 5*(2), 219-230.

*Veroff, J., Feld, S., & Gurin, G. (1962). Dimensions of subjective adjustment. *Journal of Abnormal and Social Psychology, 64*, 192-205.

*Virick, M., Lilly, J. D., & Casper, W. J. (2007). Doing more with less: An analysis of work life balance among layoff survivors. *Career Development International, 12*, 463-480.

*Warr, P., Cook, J., & Wall, T. (1979). Scales for the measurement of some work attitudes and aspects of psychological well-being. *Journal of Occupational Psychology, 52*, 129-148.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063-1070.

*Weaver, C. N. (1978). Job satisfaction as a component of happiness among males and females. *Personnel Psychology, 31*, 831-840.

Weiss, D. J., Dawis, R. V., England, G. W., & Lofquist, L. H. (1967). *Manuual for the Minnesota Satisfaction Questionnaire*. Minneapolis, MN: University of Minnesota, Industrial Relations Center.

*Weiss, H. M., Nicholas, J. P., & Daus, C. S. (1999). An examination of the joint effects of affective experiences and job beliefs on job satisfaction and variations in affective experiences over time. *Organizational Behavior and Human Decision Processes, 78*, 1-24.

*Wiener, Y., Muczyk, J. P., & Martin, H. J. (1992). Self-esteem and job involvement as moderators of the relationship between work satisfaction and well-being. *Journal of Social Behavior and Personality, 7*, 539-554.

*Wiese, B. S., & Freund, A. M. (2005). Goal progress makes one happy, or does it? Longitudinal findings from the work domain. *Journal of Occupational and Organizational Psychology, 78*, 287-304. doi:10.1348/096317905X26714

Wietz, J. (1952). A neglected concept in the study of job satisfaction. *Personnel Psychology, 52*, 201-205.

Wilensky, H. (1960). Work, careers, and social integration. *International Social Science Journal, 12*, 543-560.

*Williams, L. J., Gavin, M. B., & Williams, M. L. (1996). Measurement and nonmeasurement processes with negative affectivity and employee attitudes. *Journal of Applied Psychology, 81*, 88-101.

*Wright, T. A., & Cropanzano, R. (1998). Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology, 83*, 486-493.

*Xie, J. L. (1996). Karasek's model in the People's Republic of China: Effects of job demands, control, and individual differences. *Academy of Management Journal, 39*, 1594-1618.

Zajonc, R. B. (1980). Feeling and thinking preferences need no inferences. *American Psychologist, 35*, 151-175.

*Zelenski, J. M., Murphy, S. A., & Jenkins, D. A. (2008). The happy-productive worker thesis revisited. *Journal of Happiness Studies, 9*, 521-537.

Received 15 July 2008; revised version received 24 September 2009

Copyright of Journal of Occupational & Organizational Psychology is the property of Wiley-Blackwell and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.