

A Construct Validation of the Neutral Objects Satisfaction Questionnaire (NOSQ)

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Published online: 31 December 2010
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Abstract

Purpose We address concerns regarding the affective-orientation of affective disposition; a personality characteristic assessed using the Neutral Objects Satisfaction Questionnaire (NOSQ). In addition, we examine the utility of affective disposition while controlling for other affective-oriented personality characteristics.

Design/Methodology/Approach Study 1 included a meta-analytic examination of the affective disposition correlates in 18 samples. Study 2 data was collected from undergraduate volunteers ($n = 396$).

Findings The NOSQ, which is used to assess affective disposition, was examined using meta-analytic and cross-sectional data. Affective disposition converged with other affective-oriented personality characteristics and diverged from cognitive-oriented personality characteristics. Contrary to expectations, affective disposition did not have a stronger relationship with an affective-oriented job attitude than with a cognitive-oriented job attitude. Finally, we examined the utility of the NOSQ and found that affective disposition was positively associated with well-being and predicted job satisfaction while controlling for other affective-oriented personality characteristics.

Implications The NOSQ is assessing an affective-oriented personality characteristic that is likely to predict job attitudes after controlling for other affective-oriented personality characteristics.

Originality/Value This is the first study to address the concerns of previous researchers that the NOSQ is not assessing an affective-oriented personality characteristic. In addition, we provide meta-analytic estimates of several correlates of affective disposition and demonstrate the utility of affective disposition in job attitude research.

Keywords Affective disposition · Neutral Objects Satisfaction Questionnaire · Gripe index · Job attitudes · Personality

Introduction

The dispositional basis of job satisfaction has become an important area of interest to organizational researchers (e.g., Staw and Ross 1985; Thoresen et al. 2003). The interest in the disposition–job satisfaction relationship can be partially attributed to Weitz (1952) who is among the earliest to adopt a dispositional approach to job satisfaction and did so at a time when most researchers considered job satisfaction to be primarily determined by situational factors. Interest in the disposition–job satisfaction relationship became increasingly popular after Staw et al. (1986) found affective-oriented personality characteristics measured during adolescence correlated with job satisfaction of middle aged adults. Consequently, research on the effect of dispositions on job satisfaction has extended to include the genetic makeup of an employee (Arvey et al. 1989; Arvey et al. 1993), the stability of job satisfaction measures over time and across situations (Staw and Ross 1985; Dormann and Zapf 2001), and the correlations between dispositional measures and job satisfaction (e.g., Thoresen et al. 2003).

Weitz's (1952) influential proposal included the design of the Neutral Objects Satisfaction Questionnaire (NOSQ).

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The NOSQ is essentially a projective test used to evaluate a person's predisposition to be either dissatisfied or satisfied. Weitz presented employees with a list of 44 generally neutral items (e.g., 8½" × 11" paper; see Table 1)¹ and instructed respondents to indicate their affective reaction (i.e., dissatisfied, neutral, or satisfied). Weitz believed that people who have affective reactions to even neutral stimuli might have a pervasive and stable predisposition to see their life either positively or negatively. Many researchers soon recognized the NOSQ as an assessment of a person's affective disposition (Carter 2004; Connolly and Viswesvaran 2000; Erez et al. 1995; Judge 1993; Judge and Bretz 1993; Judge et al. 1998) and it was argued by some researchers to be one of the best measures of affective-oriented personality available to organizational researchers (Judge and Bretz 1993). Indeed, the NOSQ has been found to predict job satisfaction (e.g., Erez et al. 1995; Weitz 1952), voluntary turnover (Judge 1993), job avoidance (Judge and Locke 1993), and job strain (Zickar et al. 2003). However, researchers have questioned the validity of NOSQ because it does not have a strong empirical overlap with other affective-oriented personality measures (e.g., measures of affect intensity and negative affectivity; Fortunato and Goldblatt 2002).

The confusion over the NOSQ has even led some researchers to incorrectly use the NOSQ to assess negative affectivity (e.g., Probst 2003) and combine the NOSQ with a measure of dispositional optimism using meta-analysis (Connolly and Viswesvaran 2000). Undoubtedly, the confusion has likely deterred others from employing the NOSQ in organizational research, as indicated by the lack of studies using the NOSQ in recent years. We hope to encourage future researchers to use the NOSQ as of measure of affective disposition by addressing the concerns regarding the validity of the NOSQ. Specifically, we give the NOSQ meaning through (a) the pattern of NOSQ correlations with measures of affective- and cognitive-oriented personality characteristics and job attitudes and (b) the mean levels of satisfaction with the NOSQ items/objects. In addition, we provide additional evidence for the utility of the NOSQ by examining the predictive validity of the NOSQ over other affective-oriented personality characteristic measures.

¹ An adapted 25-item version of the NOSQ (see Table 2) was later developed by Judge and Bretz (1993). Judge and Bretz excluded items pertaining to socioeconomic status, previous employment, and other items that did not apply to all individuals. In addition, the response format was changed from a columnar checklist to a trichotomous response format.

Dispositional Basis of Affective Disposition

To test whether the NOSQ is assessing an affective-oriented personality characteristic, it is important to describe the differences between affective- and cognitive-oriented personality characteristics. Affective-oriented personality characteristics are a person's average level of a given emotion or tendency to have the same affective experience across situations (Judge and Larson 2001). A common categorization of affect is in the form of a hierarchical structure. When ascending the hierarchy, constructs become more stable and lack a defining event or object. For example, affective-oriented personality characteristics are relatively stable and more pervasive compared to mood. Mood, in turn, is relatively stable and lacks a defining event compared to emotions. Affective-oriented personality characteristics are stable over time, whereas the affective states are more sensitive to fluctuations (e.g., Watson et al. 1988). Organizational researchers often assess affective-oriented personality with measures of positive affectivity, negative affectivity, extraversion, or neuroticism (Connolly and Viswesvaran 2000). Positive and negative affectivity are conscious and subjective experiences. Positive affectivity refers to an individual's tendency to respond to the environment with positive emotion and feel effectively engaged, whereas negative affectivity is an individual's tendency to respond to the environment with negative emotion (Watson et al. 1988).

Similar to positive and negative affectivity are extraversion and neuroticism. Positive affectivity correlates strongly with extraversion, whereas negative affectivity correlates strongly with neuroticism (e.g., Emmons and Diener 1985; Watson and Clark 1992). People high on extraversion have a tendency to engage in behaviors that demonstrate sociability, friendliness, assertiveness, and spontaneity. In addition, a sub-trait of extraversion includes the consistent positive emotional experience of cheerfulness. Neuroticism is the tendency to engage in behaviors that represent differences in adjustment and emotional stability. Sub-traits of neuroticism include the consistent negative emotional experiences of anxiety, depression, and anger. Whereas affective-oriented personality characteristics emphasize consistent experiences of positive or negative affect, cognitive-oriented personality characteristics are consistencies in information processing and beliefs (Organ and Near 1985).

Cognitive-oriented personality characteristics include needs, expectancies, encodings, and evaluations of the environment (Mischel and Shoda 1995). Examples of cognitive-oriented personality characteristics are need for cognition, general self-efficacy, and locus of control. Need for cognition is a person's tendency to engage in an effortful cognitive process to gather, evaluate, and reflect

Table 1 The original version of the NOSQ from Weitz (1952)

Instructions: Indicate by checking the appropriate column whether you are satisfied, dissatisfied, or neutral concerning the items listed below. If an item does not apply, draw a line through all three columns

	Satisfied	Dissatisfied	Neutral	Satisfied	Dissatisfied	Neutral
The city in which you live.....				Television programs.....		
The house or apartment in which you live.....				Local speed limits.....		
The area of the city in which you live.....				The way people drive.....		
The high school you attended.....				The way local traffic is handled.....		
The climate where you live.....				Your present job.....		
The movies being produced.....				Advertising methods.....		
Local political situation.....				The way you were raised.....		
National political situation.....				Telephone service.....		
Our foreign policy.....				Income tax.....		
Your last job.....				Public transportation.....		
Food prices.....				General public attitude toward voting....		
Today's automobiles.....				The school your child is attending.....		
Opportunities to get ahead.....				Restaurant food.....		
Local newspapers.....				Sales tax.....		
Automobile prices.....				Women's clothing styles.....		
The last suit you bought.....				Yourself.....		
The amount of time you have for recreation....				Contemporary art.....		
Your last boss.....				Popular music.....		
The college you attended.....				Movie censorship.....		
Your first name.....				Book censorship.....		
The people you know.....				8½" × 11" paper.....		
Radio programs.....				Your telephone number.....		

upon information (Cacioppo and Petty 1982). General self-efficacy is a person's judgment of his or her ability to perform behaviors across situations (Bandura 1986; Mitchell et al. 1994). The judgment is a person's belief of self-confidence and ability level. Whereas general self-efficacy refers to belief of self-confidence, locus of control represents a person's perceived ability to control outcomes and the beliefs a person holds about the causes of events (Judge et al. 1998).

Conceptually, the NOSQ is used to assess a person's tendency to see the world in either a positive, neutral, or negative light (Weitz 1952). This conceptualization is based upon presenting people with objects endemic to everyday life. If an object is truly neutral, then any between person variability in affective responses can be attributed to within person factors instead environmental differences. In other words, the NOSQ controls for environmental differences between people and assesses an individual difference in affective reaction. A proper description of the construct the NOSQ is assessing may be best described as "affective disposition." Many researchers have described the NOSQ as assessing a person's affective disposition because the NOSQ was believed to be a very broad assessment of the affective content domain (e.g., Judge 1993; Judge and Bretz 1993). This belief is partially based upon the stability of the NOSQ over time. A crucial indicator that a measure is assessing a personality characteristic is that the measure is relatively stable over time (Davis-Blake and Pfeffer 1989; Staw and Ross 1985). Consistent with this prerequisite, the NOSQ has a corrected test–retest reliability of 0.88 (Judge and Bretz 1993) and 0.79 (Carter 2004) over 6-month and 5-week periods, respectively. The NOSQ is even more stable than common measures of other affective-oriented personality characteristics, such as the Positive and Negative Affect Schedule (PANAS; Watson et al. 1988), which measures positive and negative affectivity. More specifically, during longitudinal studies, the corrected test–retest reliability for the NOSQ is an average of 0.17 stronger than measures of positive affectivity and 0.19 stronger than measures of negative affectivity (Carter 2004; Judge and Bretz 1993). In sum, the stability of the NOSQ indicates the measure is likely a broad assessment of the affective content domain.

Additional insight into the construct the NOSQ is assessing can be gained by comparing the format of the measure to other measures of affective-oriented personality characteristics. More specifically, the presentation of a neutral object is likely to enable accurate information recall by a respondent and deter socially desirable responding. The NOSQ assesses affective tendencies toward objects, which provide respondents with a reference point to pull information from. The presentation of an object allows the respondent to recall their overt behavior to the object, the

appraisal of the object, the affective feeling, and the underlying neurophysiological activities (Barrett and Russell 1998). In contrast, the PANAS provides no reference point, but rather just a time frame to report frequency of an emotion.

In addition, if an item is personally relevant, cognitive processes, involving motivational strategies, are likely to occur during information recall (Forgas 1995). The PANAS provides the respondent with a stem item that is personally relevant and affective-oriented, whereas the stem item of the NOSQ is generally external of the individual and neutral. As a result, a participant is likely to detach themselves from the questions on the NOSQ and find the items less relevant to social acceptance. Although no previous study has examined the desirability of the NOSQ items, Erez et al. (1995) report that affective disposition has a weaker relationship with self-deception ($r = 0.26$) than either positive ($r = 0.49$) or negative affectivity ($r = 0.40$). In sum, the presentation of a neutral stem item provides a more accurate and direct information recall. Thus, the NOSQ is a broad and accurate assessment of a person's tendency to see the world affectively, which is referred to as affective disposition.

The Affective-Orientation of Affective Disposition

If the NOSQ is measuring affective disposition, then the NOSQ should be associated with measures of other affective-oriented personality characteristics. Affective disposition is expected to be associated with other affective-oriented personality characteristics because those who are satisfied with objects endemic to everyday life are likely to have a tendency to experience positive emotions in general. Conversely, those who are dissatisfied with objects endemic with everyday life are likely to have a tendency to experience negative emotions in general. Surprisingly, affective disposition has weak to moderate correlations with positive affectivity, negative affectivity, extraversion, and neuroticism (Carter 2004; Erez and Judge 1994; Judge and Locke 1993; Piccolo et al. 2005). In some cases, affective disposition did not significantly correlate with other affective-oriented personality characteristics, such as negative affectivity and affect intensity (Fortunato and Goldblatt 2002).

In addition, Fortunato and Goldblatt (2002) found that the relationships between affective disposition and other affective-oriented personality characteristics were substantially weaker than the inter-correlations between the other affective-oriented personality characteristics. In other words, affective disposition has less convergence with other affective-oriented personality characteristics than previously expected. It is important to note, however, that these findings are not adequate to determine if affective

disposition is affective-oriented. That is, the NOSQ can assess the affective content domain while having little convergence with other measures of affective-oriented personality characteristics.

Researchers argue that common measures of affective-oriented personality characteristics do not capture the entire affective content domain (Barrett and Russell 1998; Russell and Barrett 1999). The format of the NOSQ is an indication that the measure is likely capturing a unique portion of the affective content domain. Common measures of affective-oriented personality characteristics assess the frequency of an emotional experience and do not control for the environment (Watson et al. 1988). In other words, frequent emotional experiences may be because a person is predisposed to respond affectively or because he or she is in a positive or negative environment that has remained stable. The NOSQ, on the other hand, is a projective test that attempts to control for the environment by asking about generally neutral items. Thus, the weak to moderate relationship between the affective disposition and other affective-oriented personality characteristics is likely because the NOSQ is more accurately assessing a person's personality. In sum, we expect affective disposition to be associated with other affective-oriented personality characteristics; however, affective disposition will be empirically distinct from other affective-oriented characteristics, as indicated by a relationship that is modest in strength (i.e., -0.20 to -0.40 and 0.20 to 0.40).²

Hypothesis 1 Affective disposition will be associated with other affective-oriented personality characteristics. However, the relationship between affective disposition and other affective-oriented personality characteristics will be modest in strength (i.e., -0.20 to -0.40 and 0.20 to 0.40).

Despite the weak to moderate relationship with measures of other affective-oriented personality characteristics, we believe the NOSQ is assessing an affective-oriented personality characteristic. To test this notion, it is necessary to examine which constructs converge and diverge with affective disposition. If the NOSQ is assessing an affective-

oriented content domain, then affective disposition should have a stronger relationship with other affective-oriented personality characteristics than with cognitive-oriented personality characteristics.

Hypothesis 2 Affective disposition will correlate more strongly with other affective-oriented personality characteristics than with cognitive-oriented personality characteristics.

Similar to testing whether affective disposition converges with affective- or cognitive-oriented personality characteristics, we examine if affective disposition converges with affective- or cognitive-oriented job attitudes. Job satisfaction is comprised of both a cognitive component and an affective component (Brief and Roberson 1989). Similar to dispositions, the cognitive component of job satisfaction is a decision-making process that requires the person to make judgments by comparing job beliefs and the perception of the job environment (e.g., my job is better than my friend's job), whereas the affective component is a person's automatic affective response (e.g., I hate my job; Organ and Near 1985). Affective-oriented personality characteristics should be more strongly associated with job satisfaction than job cognitions because affective-oriented personality characteristics are likely better predictors of affective criterion (Wegge et al. 2006; Weiss 2002; Weiss and Cropanzano 1996). If affective disposition is affective-oriented, then affective disposition should be a better predictor of an affective-oriented job attitude than a cognitive-oriented job attitude.

Hypothesis 3 Affective disposition will correlate more strongly with an affective-oriented job attitude than a cognitive-oriented job attitude.

Affective Disposition and Well-Being

Given the dispositional basis of affective disposition, it is likely to be a valuable tool in predicting well-being. However, it is unclear whether affective disposition will predict criteria after controlling for other affective-oriented personality characteristics. Two pieces of evidence lead us to believe that affective disposition will be positively associated with job satisfaction after controlling for other affective-oriented personality characteristics, such as positive and negative affectivity. First, as previously indicated, the relationships between affective disposition and other affective-oriented personality characteristics are likely weak to moderate in strength. Second, affective disposition is likely to predict well-being as well as other affective-oriented personality characteristics. Weitz (1952) believed that a person has a predisposition to be either dissatisfied or satisfied, which can be used to predict

² Part of the confusion over the content domain of the NOSQ can also be contributed to Connolly and Viswesvaran's (2000) suggestion that the affective disposition has more conceptual overlap with negative affectivity than positive affectivity. This notion was based on meta-analytic findings in which affective disposition–job satisfaction relationship was more similar in strength to the negative affectivity–job satisfaction relationship than positive affectivity–job satisfaction relationship. However, a more comprehensive meta-analysis between negative affectivity, positive affectivity, and job satisfaction does not support this claim (Thoresen et al. 2003). Nonetheless, Connolly and Viswesvaran's (2000) suggestion may have been the reason the NOSQ has been mistakenly used as a measure of negative affectivity (Probst 2003).

satisfaction in specific areas of life. That is, positive or negative responses to neutral stimuli are likely to predict whether a person views various life domains as positive or negative. In addition, people are likely to select environments that coincide with their personality characteristics (Brief 1998).

In support of Weitz's notion, affective disposition is consistently associated with subjective well-being (e.g., Erez et al. 1995; Kavanagh and Halpern 1977) and has been found to explain unique variance in life satisfaction after controlling for positive affectivity, negative affectivity, self-esteem, locus of control, and neuroticism (Piccolo et al. 2005). Additionally, affective disposition is consistently associated with job satisfaction (e.g., Erez et al. 1995; Piccolo et al. 2005; Weitz 1952) at a strength similar to the relationship between positive affectivity and job satisfaction ($\rho = 0.33$, $k = 71$, $N = 22,148$; Thoresen et al. 2003) and negative affectivity and job satisfaction ($\rho = -0.37$, $k = 145$, $N = 52,120$; Thoresen et al. 2003). As a result, we expect affective disposition to be positively associated with all forms of well-being. In addition, because affective disposition likely predicts job satisfaction as well as other affective-oriented personality characteristics and has little empirical overlap with those other personality characteristics, affective disposition is likely to predict incremental variance in job satisfaction after controlling for other affective-oriented personality characteristics.

Hypothesis 4 Affective disposition will be positively associated with well-being (i.e., subjective well-being and job satisfaction).

Hypothesis 5 Affective disposition will be positively associated with job satisfaction after controlling for other affective-oriented personality characteristics.

To provide a more complete understanding of the utility of the NOSQ, it is important to note that the affective disposition–well-being relationship is likely to vary depending upon the type of well-being being measured. Subjective well-being is a relatively broad form of well-being that covers several life domains (e.g., job, family, social). In contrast, job satisfaction and satisfaction with specific facets of one's job (e.g., pay, supervision) are relatively narrow forms of well-being. Because personality characteristics are broad constructs, more narrow forms of well-being are likely to be weakly related to the affective disposition. This notion is based upon the principle of compatibility (Fishbein and Ajzen 1974), which states that constructs become more strongly related as they become more similar in specificity. Thus, we predict affective disposition to be more strongly associated with broad forms of well-being than narrow forms of well-being.

Hypothesis 6 Affective disposition will be more strongly related to broad forms of well-being (i.e., subjective well-being) than narrow forms of well-being (i.e., job satisfaction).

Method

Two studies were conducted to test the above hypotheses. In Study 1, we used meta-analysis to examine the relationship between affective disposition and other affective-oriented personality characteristics (Hypothesis 1). Meta-analytic data was also used to examine the affective disposition–well-being relationships (Hypotheses 4, 5, and 6). Study 2 was conducted to test the convergent and divergent validity of the NOSQ (Hypotheses 2 and 3). The method for each study is outlined below.

Study 1

Literature Search and Inclusion Criteria for the Meta-Analysis

We used the PsycINFO and Google Scholar computer databases and the reference sections of previously published articles to conduct our literature search. The keywords used in our search were: “NOSQ,” “Neutral Objects Satisfaction Questionnaire,” and “Gripe Index.” Weitz (1952) has also referred to the NOSQ as the Gripe Index because the measure reflects the extent to which one “gripes” about seemingly neutral objects. We also searched all studies citing Weitz (1952) or Judge and Bretz (1993). A total of 108 studies include a reference for Weitz's seminal paper. Unpublished data sets were also requested from authors who have previously published using the NOSQ, but no usable studies were obtained. Several relationships (e.g., NOSQ–mood; Carter 2004) were not meta-analyzed because the relationship was examined in only one study. In addition, we excluded studies that did not use the original or adapted versions of the NOSQ (e.g., Bowling et al. 2006). These search strategies and exclusion criteria yielded a total of 17 published studies and 1 conference presentation that were included in the meta-analysis.

Meta-Analytic method

We used Hunter and Schmidt's (2004) method to conduct the meta-analyses. Specifically, in all of the analyses we computed the sample-weighted mean corrected correlations, corrected for unreliability in the measures, estimated missing reliability data with artifact distributions, and used the percent of variance attributed to artifacts to determine the role of moderators. We used Hunter and Schmidt's

(2004) formula for standard error of the mean correlation to compute 95% confidence intervals. The confidence interval formula was based on correlations corrected using artifact distributions. The confidence intervals were used to test the significance of a relationship and test whether two relationships were significantly different in strength. If the absolute values of confidence intervals for two meta-analyzed relationships do not overlap, the relationships are considered to be significantly different in strength.

We treated measures of positive affectivity and extraversion as the same variable because of the limited number of primary samples. Measures of negative affectivity and neuroticism were also combined. Because of the conceptual and empirical overlap between negative affectivity and emotional stability and between positive affectivity and extraversion, researchers have often combined these measures (e.g., Thoresen et al. 2003; Watson and Clark 1992). Limitations of making these combinations are addressed in the “Discussion”. In addition, global job satisfaction includes both global and composite facet measures. We computed a composite of facet job satisfaction (Hunter and Schmidt 2004) if two or more job satisfaction facets were available (Judge and Bono 2001).

After computing the meta-analytic relationships, we conducted multiple regression analyses using meta-analytic data to test Hypothesis 5. The meta-analytically derived correlation matrix used to conduct regression analyses was completed using three corrected correlations from the current meta-analysis: (1) Affective disposition–job satisfaction, (2) Affective disposition–positive affectivity, (3) Affective disposition–negative affectivity. We relied on previous meta-analyses for relationships needed to complete the correlation matrix: (1) positive affectivity–negative affectivity (Connolly and Viswesvaran 1999), (2) positive affectivity–job satisfaction (Thoresen et al. 2003), (3) negative affectivity–job satisfaction (Thoresen et al. 2003). The harmonic mean was used for the sample size (Viswesvaran and Ones 1995).

Study 2

Participants and Procedure

A total of 396 undergraduates completed the survey. Participants were an average of 19 years old, 70% female, 64% Caucasian, and 27% African-American. We included all participants to test Hypothesis 2 whereas we only included participants that had 12 months job tenure and that worked a minimum of 20 h per week ($n = 317$) to test Hypothesis 3. Participants held a variety of positions that did not require college degree (e.g., sales clerk, server, health care assistant). The average employed participant worked 26 h per week and had 21 months job tenure.

Affective Disposition

We used the 25-item adapted version of the NOSQ (Judge and Bretz 1993; see Table 2) to assess affective disposition. The alpha reliability in Study 2 was 0.83.

Affective-Oriented Personality Characteristics

Eight measures of affective-oriented personality characteristics were included. We used two 10-item measures from Watson et al. (1988) to assess *positive affectivity* and *negative affectivity*. Respondents rated how often they feel an emotion “in general, that is, on average.” Each item is scored on a five-point scale ranging from never (1) to always (5). Example positive affectivity items include “enthusiastic” and “interested,” whereas example negative affectivity items include “jittery” and “afraid.” The alpha reliabilities in Study 2 were 0.81 for both positive and negative affectivity. We used 10-item measures from the International Personality Item Pool (2001) to assess extraversion, neuroticism, anxiety, depression, anger, and cheerfulness. The measures instructed the respondent to rate each item on how accurately the item described their behaviors in general. Each instrument was on a five-point scale ranging from strongly disagree (1) to strongly agree (5). *Extraversion* was assessed with five positively keyed items (e.g., “feel comfortable around people”) and five negatively keyed items (e.g., “have little to say”). The alpha reliability in Study 2 was 0.81. *Neuroticism* was assessed with five positively keyed items (e.g., “am often down in the dumps”) and five negatively keyed items (e.g., “rarely get irritated”). The alpha reliability in Study 2 was 0.80. *Anxiety* was assessed with five positively keyed items (e.g., “worry about things”) and five negatively keyed items (e.g., “am not easily bothered by things”). The alpha reliability in Study 2 was 0.79. *Anger* was assessed with five positively keyed items (e.g., “get angry easily”) and five negatively keyed items (e.g., “rarely get mad”). The alpha reliability in Study 2 was 0.87. *Depression* was assessed with seven positively keyed items (e.g., “often feel blue”) and three negatively keyed items (e.g., “feel comfortable with myself”). The alpha reliability in Study 2 was 0.85. *Cheerfulness* was assessed with eight positively keyed items (e.g., “radiate joy”) and two negatively keyed items (e.g., “am not easily amused”). The alpha reliability in Study 2 was 0.74.

Cognitive-Oriented Personality Characteristics

Three measures of cognitive-oriented personality characteristics were included in the study. Each cognitive-oriented personality characteristic measure was scored on a five-point scale from strongly disagree (1) to strongly agree

Table 2 The Adapted Version of the NOSQ from Judge and Bretz (1993) and item statistics from Study 2

Instructions: Circle the numbered response that best represents your feeling about the item

	Response options			Item statistics from Study 2			
	Dissatisfied	Neutral	Satisfied	Mean	Median	Mode	SD
1. The city in which you live	1	2	3	2.44	3	3	0.72
2. The residence where you live	1	2	3	2.55	3	3	0.66
3. The neighbors you have	1	2	3	2.42	3	3	0.70
4. The high school you attended	1	2	3	2.55	3	3	0.70
5. The climate where you live	1	2	3	2.29	2	3	0.76
6. The movies being produced today	1	2	3	2.46	3	3	0.67
7. The quality of food you buy	1	2	3	2.47	3	3	0.66
8. Today's cars	1	2	3	2.62	3	3	0.62
9. Local newspapers	1	2	3	2.23	2	2	0.65
10. Your relaxation time	1	2	3	2.33	3	3	0.81
11. Your first name	1	2	3	2.78	3	3	0.50
12. The people you know	1	2	3	2.82	3	3	0.45
13. Television programs	1	2	3	2.42	3	3	0.70
14. Local speed limits	1	2	3	1.97	2	2	0.75
15. The way people drive	1	2	3	1.46	1	1	0.64
16. Advertising	1	2	3	1.96	2	2	0.69
17. The way you were raised	1	2	3	2.76	3	3	0.53
18. Telephone service	1	2	3	2.17	2	2	0.74
19. Public transportation	1	2	3	2.11	2	2	0.66
20. Restaurant food	1	2	3	2.55	3	3	0.60
21. Yourself	1	2	3	2.77	3	3	0.51
22. Modern art	1	2	3	2.31	2	2	0.65
23. Popular music	1	2	3	2.56	3	3	0.69
24. 8½" × 11" paper	1	2	3	2.48	3	3	0.54
25. Your telephone number	1	2	3	2.74	3	3	0.49

(5). The New General Self-efficacy Scale (NGSE) from Chen et al. (2001) was used to assess *generalized self-efficacy*. The NGSE is an eight-item measure (e.g., “I will be able to achieve most of the goals that I have set for myself”) and the alpha reliability in Study 2 was 0.83. Need for cognition and locus of control were assessed with measures from the International Personality Item Pool (2001). Respondents rated each item on how accurately the items described their behaviors in general. *Need for cognition* was assessed with a 10-item measure that includes six positively keyed items (e.g., “love to think up new ways of doing things”) and four negatively keyed items (e.g., “avoid philosophical discussions”). The alpha reliability in Study 2 was 0.78. *Locus of control* was assessed with a 20-item measure that includes 10 positively keyed item (i.e., “believe that my success depends on ability rather than luck”) and 10 negatively keyed items (e.g., “believe in the power of fate”). High scores indicate high internal locus of control. The alpha reliability in Study 2 was 0.82.

Job Attitudes

A measure of job satisfaction was used to assess an affective-oriented job attitude and a measure of job cognitions was used to assess a cognitive-oriented job attitude. *Job satisfaction* was assessed with the Michigan Organizational Assessment Questionnaire (MOAQ; Cammann et al. 1983). The MOAQ assesses a predominately affective attitude because it strongly correlates ($r = 0.73$) with the Job-related Affective Well-Being Scale, a measure of affect in the work place (Van Katwyk et al. 2000), and consistently correlates with measures of affective-oriented variables (e.g., affective commitment, frustration, depression, anxiety) in a meta-analysis examining the validity of the MOAQ (Bowling and Hammond 2008). The MOAQ contains a three-item scale in which an employee provides affective responses to his or her job (i.e., “all in all I am satisfied with my job,” “in general I don’t like my job,” “in general I like working here”). Respondents rated their level of agreement with these items using a five-point scale

ranging from strongly disagree (1) to strongly agree (5). The alpha reliability in Study 2 was 0.91. Employee’s beliefs about their job, or *job cognitions*, were assessed with a 6-item measure adopted from Scholl et al. (1987) and Organ and Konovsky (1989). The measure instructs respondents to assess their job using a five-point scale ranging from very bad (1) to very good (5). Items include job comparisons with other employees with similar and different duties, equivalent education, of same age cohort, and overall evaluation of their current job status (e.g., “How good is your job compared to similar individuals in this company who have this job”). The alpha reliability in Study 2 was 0.83.

Results

The meta-analytically derived relationships from Study 1 are presented in Table 3. The descriptive statistics, correlations, and alpha reliabilities from Study 2 are presented in Table 4.

The Affective-Orientation of Affective Disposition

The meta-analytic data was used to examine the relationship between affective disposition and other affective-oriented personality characteristics. In support of Hypothesis 1, affective disposition has a modest association with positive ($\rho = 0.32, k = 5, N = 941$) and negative affectivity ($\rho = -0.27, k = 7, N = 1,442$). Similar results were found using data from Study 2. More specifically, affective

disposition had a weak to moderate relationship ($p < 0.01$) with positive affectivity ($r = 0.32$), negative affectivity ($r = -0.22$), extraversion ($r = 0.22$), neuroticism ($r = -0.30$), trait anxiety ($r = -0.21$), trait depression ($r = -0.34$), trait anger ($r = -0.23$), and cheerfulness ($r = 0.29$). In addition, when affective disposition was regressed on all affective- and cognitive-oriented personality characteristics in Study 2, only 18% of the variance in affective disposition was explained ($R^2 = 0.18, p < 0.01$). Overall, this suggests that affective disposition is largely distinct from other affective-oriented personality characteristics.

Support was found for Hypothesis 2, which states that affective disposition will be more strongly associated with other affective-oriented personality characteristics than cognitive-oriented personality characteristics. Using *t*-tests for dependent samples (Bruning and Kintz 1977), we found that affective disposition had significantly stronger correlations with other affective-oriented personality characteristics in 11 of 24 comparisons: positive affectivity versus need for cognition ($t = 5.77, p < 0.01$), positive affectivity versus general self-efficacy ($t = 1.97, p < 0.05$), negative affectivity versus need for cognition ($t = 3.58, p < 0.01$), neuroticism versus need for cognition ($t = 5.29, p < 0.01$), extraversion versus need for cognition ($t = 3.58, p < 0.01$), trait anxiety versus need for cognition ($t = 3.39, p < 0.01$), trait anger versus need for cognition ($t = 3.78, p < 0.01$), trait depression versus locus of control ($t = 2.01, p < 0.01$), trait depression versus need for cognition ($t = 6.28, p < 0.01$), trait depression versus general self-efficacy ($t = 2.28, p < 0.05$), and cheerfulness versus need for cognition ($t = 5.06, p < 0.01$). In no cases were the

Table 3 Meta-Analyses of affective disposition in Study 1

Variable	<i>k</i>	<i>N</i>	Mean <i>r</i>	<i>SD_r</i>	Mean ρ	<i>SD_ρ</i>	95% Confidence interval	% Variance artifacts
Affective-oriented personality characteristics								
Positive affectivity	5	941	0.25	0.09	0.32	0.11	[0.22, 0.42]	36.43
Negative affectivity	7	1,442	-0.23	0.00	-0.27	0.00	[-0.27, -0.27]	100.00
Subjective well-being								
Life satisfaction	10	2,031	0.33	0.13	0.41	0.16	[0.31, 0.51]	18.33
Happiness	4	973	0.31	0.00	0.40	0.00	[0.40, 0.40]	100.00
Job satisfaction								
Job satisfaction	13	2,744	0.20	0.08	0.25	0.09	[0.20, 0.30]	43.77
Satisfaction with work itself	4	1,130	0.20	0.00	0.25	0.00	[0.25, 0.25]	100.00
Co-worker satisfaction	5	1,353	0.12	0.05	0.15	0.07	[0.07, 0.23]	55.89
Pay satisfaction	3	769	0.13	0.12	0.16	0.15	[-0.01, 0.33]	21.89
Satisfaction with supervision	5	1,353	0.10	0.07	0.12	0.08	[0.05, 0.19]	45.12
Satisfaction with promotional opportunities	3	769	0.05	0.00	0.05	0.00	[0.05, 0.05]	100.00

Note. *k* Number of samples, *N* total sample size, *Mean r* average weighted correlation coefficient, *SD_r* standard deviation of the average weighted correlation coefficient corrected for sampling error, *Mean ρ* average weighted correlation coefficient corrected for unreliability in both the predictor and criterion. *% Variance Artifacts* percentage of variance explained by artifacts

Table 4 Descriptive statistics, reliabilities, and correlations for Study 2 variables

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Affective disposition	2.41	0.29	(0.83)													
Other affective-oriented personality characteristics																
2. Positive affectivity	3.84	0.49	0.32**	(0.81)												
3. Negative affectivity	2.39	0.52	-0.22**	-0.35**	(0.81)											
4. Anxiety	2.82	0.59	-0.21**	-0.42**	0.65**	(0.79)										
5. Depression	2.26	0.65	-0.34**	-0.53**	0.67**	0.65**	(0.85)									
6. Anger	2.67	0.69	-0.23**	-0.35**	0.60**	0.65**	0.59**	(0.87)								
7. Cheerfulness	3.80	0.50	0.29**	0.43**	-0.26**	-0.29**	-0.46**	-0.30**	(0.74)							
8. Neuroticism	2.44	0.60	-0.30**	-0.49**	0.71**	0.77**	0.90**	0.74**	-0.41**	(0.80)						
9. Extraversion	3.60	0.59	0.22**	0.41**	-0.26**	-0.31**	-0.42**	-0.24**	0.55**	-0.37**	(0.81)					
Cognitive-oriented dispositions																
10. Locus of control	3.74	0.44	0.22**	0.61**	-0.58**	-0.56**	-0.78**	-0.48**	0.42**	-0.68**	0.47**	(0.82)				
11. Need for cognition	3.41	0.56	0.00	0.37**	-0.25**	-0.35**	-0.29**	-0.30**	0.22**	-0.31**	0.22**	0.44**	(0.78)			
12. Self-efficacy	3.87	0.53	0.20**	0.62**	-0.35**	-0.43**	-0.53**	-0.33**	0.41**	-0.47**	0.38**	0.74**	0.54**	(0.83)		
Job attitudes																
13. Job satisfaction	3.67	0.96	0.19**	0.27**	-0.11*	-0.10	-0.16**	-0.04	0.10	-0.12*	0.11	0.13*	-0.04	0.18**	(0.91)	
14. Job cognitions	3.63	0.66	0.22**	0.32**	-0.04	-0.06	-0.16**	0.01	0.16**	-0.08	0.17**	0.20**	0.04	0.25**	0.60**	(0.83)

Note. Sample size for dispositions = 396. Sample size for job attitudes = 317. Uncorrected correlations presented below the diagonal. Alpha reliabilities are presented on the diagonal in parentheses. * $p < 0.05$, ** $p < 0.01$

correlations significantly stronger for cognitive-oriented personality characteristics. The average correlation between affective disposition and other affective-oriented personality characteristics was 0.27, whereas the average correlation between affective disposition and cognitive-oriented personality characteristics was only 0.15. In addition, the differences between correlation strengths were in the predicted direction in 20 of 24 comparisons.

A comparison of the unique variance explained in affective disposition by either other affective-oriented personality characteristics or cognitive-oriented personality characteristics was used to provide additional support for Hypothesis 2. Affective-oriented personality characteristics explained a greater portion of variance in affective disposition while controlling for the three cognitive-oriented personality characteristics ($\Delta R^2 = 0.09, p < 0.01$) than did cognitive-oriented personality characteristics while controlling for the affective-oriented personality characteristics ($\Delta R^2 = 0.02, p < 0.01$). Overall, support was found for Hypothesis 2.

In our last examination of the affective-orientation of affective disposition we tested the convergence of affective disposition with either job satisfaction or job cognitions. Contrary to Hypothesis 3, affective disposition did not have a stronger correlation with job satisfaction than with job cognitions ($t = -0.04, n.s.$).

Affective Disposition and Well-Being

In general, support was found for Hypothesis 4, which states that affective disposition will be associated with both subjective well-being and job satisfaction. More specifically, affective disposition was positively associated with both forms of subjective well-being: life satisfaction ($\rho = 0.41, k = 10, N = 2,031$) and happiness ($\rho = 0.40, k = 4, N = 973$). Although affective disposition was positively associated with general job satisfaction ($\rho = 0.25, k = 13, N = 2,744$) and the work itself facet of job satisfaction ($\rho = 0.25, k = 4, N = 1,130$), affective disposition was weakly or non-significantly related to satisfaction with co-workers ($\rho = 0.15, k = 5, N = 1,353$), pay ($\rho = 0.16, k = 3, N = 769$), supervision ($\rho = 0.12, k = 5, N = 1,353$), and promotional opportunities ($\rho = 0.05, k = 3, N = 769$). Although the meta-analytic results were the primary analyses used to test Hypothesis 4, we found that affective disposition was significantly associated with both job satisfaction ($r = 0.19, p < 0.01$) and job cognitions ($r = 0.22, p < 0.01$) in Study 2. Overall, support was found for Hypothesis 4.

In support of Hypothesis 5, affective disposition explained an additional 4% of the variance in job satisfaction after controlling for both positive and negative affectivity using meta-analytic data ($\Delta R^2 = 0.04, p < 0.01$).

Additional support for Hypothesis 5 was found by conducting several regression analyses using the data collected in Study 2. Affective disposition predicted unique variation in job satisfaction while controlling for both positive and negative affectivity ($\Delta R^2 = 0.01, p < 0.05$). In addition, affective disposition predicted unique variation in job cognitions when controlling for positive and negative affectivity ($\Delta R^2 = 0.02, p < 0.01$) and when all affective- and cognitive-oriented personality characteristics were controlled ($\Delta R^2 = 0.01, p < 0.05$). Overall, support was found for Hypothesis 5.

Partial support was found for Hypothesis 6 by comparing the confidence intervals of the meta-analysis. More specifically, affective disposition was more strongly related with subjective well-being than with general job satisfaction. In addition, the only non-significant relationships found in Study 1 were between affective disposition and job satisfaction facets. It should be noted, however, that satisfaction with work itself was as strongly related to affective disposition as general job satisfaction.

Discussion

The Affective-Orientation of Affective Disposition

We address the validity concerns of the NOSQ by examining whether affective disposition converges with other affective-oriented variables and diverges with cognitive-variables. Overall, we found affective disposition is distinct from other affective-oriented personality characteristics. Consistent with Hypothesis 1, affective disposition is significantly associated with other affective-oriented personality characteristics, but the strength of the relationships is best described as weak to moderate. The weak to moderate relationship is not an indication that affective disposition lacks an affective-orientation. More specifically, measures of affective-oriented personality characteristics can assess unique portions of the affective content domain. In fact, the relationship between affective disposition and other affective-oriented personality characteristics is similar in strength to the relationship between positive and negative affectivity ($\rho = -0.30$; Connolly and Viswesvaran 1999), which are viewed as very distinct affective-oriented constructs. It is also of interest to note that the relationship between affective disposition and negative affectivity was similar in strength to the relationship between affective disposition and positive affectivity. These findings are additional evidence that affective disposition does not have more overlap with negative affectivity than positive affectivity (Connolly and Viswesvaran 2000; Probst 2003).

Despite the empirical distinction from other affective-oriented personality characteristics, affective disposition is

likely affective-oriented. The total variance explained when affective disposition was regressed on all eleven dispositions in Study 2 was modest in size. As a result, affective disposition is largely distinct from not only other affective-oriented personality characteristics, but likely cognitive-oriented personality characteristics as well. Consistent with Hypothesis 2, affective disposition correlates more strongly with other affective-oriented personality characteristics than with cognitive-oriented personality characteristics. In fact, only four of the twenty-four comparisons were not in the predicted direction and no comparison yielded a significantly stronger correlation with the cognitive-oriented personality characteristics. In addition, affective disposition had at least the same or greater convergence with other affective-oriented personality characteristics than either positive or negative affectivity. Negative affectivity was significantly stronger with the seven remaining affective-oriented personality characteristics in 10 of 21 comparisons. Unlike the NOSQ, two comparisons were significantly stronger in the direction of the cognitive-oriented personality characteristics. Positive affectivity was significantly stronger with the remaining affective-oriented personality characteristics in only two of twenty-one comparisons and 12 comparisons were significantly stronger in the direction of the cognitive-oriented personality characteristics. If affective disposition is indeed affective-oriented, then the correlation comparisons should be similar to other well-established affective-oriented personality characteristics. These findings indicate that the NOSQ is assessing the affective content domain as well or better than other measures of affective-oriented personality characteristics.

The convergence between affective disposition and either affective-oriented or cognitive-oriented job attitudes was also examined. Contrary to Hypothesis 3, affective disposition had a weaker relationship with job satisfaction than with job cognitions; however, this difference was not statistically significant. Although this finding is contrary to our expectation, similar findings were found between job attitudes and other well-established affective-oriented personality characteristics. More specifically, no affective-oriented personality characteristic was more strongly related with job satisfaction than with job cognitions. Because the findings are not unique to the relationships that include affective disposition, the results should not be used to infer that affective disposition is not affective-oriented. Rather, the lack of support for Hypothesis 3 is likely due to the similarity in job attitude measures. That is, job satisfaction and job cognitions had a relatively strong correlation, which indicates the measures of these two variables were not as distinct as we had expected. In sum, affective disposition is largely distinct from other personality characteristics, but should still be considered affective-oriented.

In fact, affective disposition may even be more affective-oriented than other affective-oriented personality characteristics.

Affective Disposition and Well-Being

Although we have found evidence that affective disposition is indeed affective-oriented, a greater understanding of the utility of affective disposition is needed. As expected, affective disposition was positively associated with subjective well-being and job satisfaction (Hypothesis 4). In addition, and in support of Hypothesis 5, the NOSQ explained unique variance in job satisfaction after controlling for other affective-oriented personality characteristics. Affective disposition also explained unique variance in job cognitions after controlling for all personality characteristics in Study 2.

Although we expected and found affective disposition to be a valuable predictor of well-being, the strength of the relationships varied depending upon the type of well-being measured. Consistent with Hypothesis 6, affective disposition was more strongly related with subjective well-being than global job satisfaction. In addition, affective disposition was weakly or not related to several job satisfaction facets. The weak or non-significant relationships are likely due to the principle of compatibility (Fishbein and Ajzen 1974). That is, facet satisfaction is a conceptually narrow construct relative to global job or life satisfaction and should have a weaker relationship with relatively broad affective-oriented personality characteristics. Overall, we consistently found affective disposition to be valuable in predicting well-being, most notably job satisfaction.

Limitations and Future Research

Several limitations should be considered regarding Study 1 and Study 2. First, the primary studies included in our meta-analysis relied entirely on self-report data. Thus, our results may have been influenced by common-method variance. We should note, however, that some researchers have recently suggested that common-method variance may not be as serious a problem as generally assumed (Spector 2006). Indeed, self-reports may be the most accurate means of assessing personality characteristics given that they involve internal psychological processes. Second, it is impossible to draw definitive conclusions regarding causal relationships because most of the primary studies used cross-sectional data. Thus, longitudinal research on the NOSQ is especially needed. The meta-analytic relationships are also based on a small number of samples. A greater number of primary samples would lead to stronger conclusions. The small number of primary samples also led us to combine measures of extraversion

with measures of positive affectivity and measures of neuroticism with measures negative affectivity. Although several researchers have treated these constructs as equivalent (e.g., Thoresen et al. 2003; Watson and Clark 1992), other researchers have elected to separate the measures while conducting meta-analyses (e.g., Alarcon et al. 2009; Judge and Larson 2001). The appropriateness of combining these measures in meta-analyses is yet to be determined. For these reasons, caution should be used when interpreting the meta-analytic findings.

Study 2 is also limited in several regards and, if possible, future studies should attempt to account for these limitations. Similar to the primary studies used in the meta-analyses, data from Study 2 is based on self-reports and vulnerable to common-method bias. Additionally, a final limitation includes the difficulty in distinguishing between affect and cognition using self-reports. Specifically, the study is based upon the theory that affect and cognition are distinct processes (Zajonc 1980) and the assumption that self-reports can detect this distinction. Although support is found for the affective-orientation of affective disposition, the difficulty in distinguishing between affect and cognition should be considered a limitation to the design of the current studies. Future research should attempt to address these limitations and explore the relationship between affective disposition and variables not meta-analyzed in Study 1 or examined in Study 2. Because affective disposition is largely distinct from other affective-oriented personality characteristics, affective disposition will likely yield incremental variance when predicting organizational criteria that are affective-oriented.

Future research should also examine if all items on the NOSQ are neutral and lack an affective orientation. Although the NOSQ items load onto a single factor, some items may be less neutral than others. For example, it is unlikely for a person to have a neutral response to “the way [he or she] was raised.” In contrast, it is less likely for a person to have any positive or negative experiences that are attributed to local speed limits or 8½" × 11" paper. In addition, several items on the NOSQ do not appear to be neutral because they pertain to personal experiences (e.g., *your* first name, the people *you* know, the way *you* were raised, yourself, *your* telephone number). In other words, personal experiences cannot be equally experienced between people. We investigated the neutrality of each item by examining the descriptive statistics for the responses to each item (see Table 2). Indeed, the mean, median, and most frequent responses to many items were skewed toward an affective reaction of satisfied. In addition, the more neutral items had more variability between people. Ideally, the NOSQ would be comprised of items that are on average neutral with a high degree of variability. Item development addressing the neutrality of the

items will likely provide a more accurate assessment of affective disposition and increase the amount of unique variance explained in affective-oriented criterion.³

Conclusion

Overall, the findings from Study 1 and 2 support our prediction of the affective-orientation of affective disposition while maintaining that affective disposition is largely distinct from other affective-oriented personality characteristics. In fact, based on the empirical evidence found, affective disposition may be more affective-oriented than common affective-oriented personality characteristics. In addition, affective disposition was a valuable predictor of several forms of well-being and even predicted job satisfaction after controlling for other affective-oriented personality characteristics. Based on these findings, we agree with previous researchers (Judge and Bretz 1993; Judge and Locke 1993) that the NOSQ is one of the best measures of affective-oriented personality characteristic available to organizational researchers. Future researchers examining the dispositional basis of job satisfaction will likely benefit from employing the NOSQ in their research.

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*Sample used in meta-analysis

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³ The analyses from Study 2 were rerun after deleting non-neutral items. Separate analyses were run for each of following scenarios: (1) deleted NOSQ items with means less than 1.5 and greater than 2.5; (2) deleted NOSQ items with medians other than 2; (3) deleted NOSQ items with a mode other than 2; (4) deleted NOSQ items that pertained to personal experiences. In general, the results from Study 2 were replicated. However, the shortened NOSQ had weaker relationships with all study variables than the full NOSQ scale from Judge and Bretz (1993).

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