

Beneath the Surface: Uncovering the relationship between extraversion and organizational citizenship behavior through a facet approach

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To date, an empirical link between the broad factor extraversion and organizational citizenship behavior (OCB) has not been found. We propose that a facet conceptualization of extraversion including surgency, sociability and positive emotions predict an individual's level of citizenship behaviors in opposing ways, thus masking the predictive ability of a broad factor of extraversion. In study one, we establish the foundation for predictive differences by documenting differential relationships between the facets of extraversion and the type of organizational cultures potential job applicants are attracted to. In study two, analysis of peer rated OCB from 117 individuals working in various organizations supports the superior predictive ability of the facets over that of the broad factor.

1. Introduction

There is much reason for optimism among those advocating the utility of personality constructs within organizational settings. Perhaps the single largest influence in the rejuvenation of personality-based research among organizational scientists has been the consensus that our personality is best conceptualized along five broadly defined factors (Goldberg, 1990; John, 1990). Of the broad factors associated with the five-factor model (FFM), an individual's level of extra-

version is highly transparent in organizations. Extraverts have been described as assertive, active, talkative, excitement seeking, and warm (Costa & McCrae, 1992). Curiously, even though extraversion has enjoyed nearly unanimous inclusion as a central aspect of our personality (Watson & Clark, 1997), its relationship with organizational criteria of interest has been inconsistent and situation specific. Although extraversion has demonstrated a positive link to sales performance (Vinchur, Schippmann, Switzer, & Roth, 1998) and leadership (Judge, Bono, Ilies, & Gerhardt, 2002) a

steady stream of research has established links between extraversion and unattractive organizational behavior such as: turnover (Cooper & Payne, 1967), absenteeism (Judge, Martocchio, & Thoresen, 1997), organizational delinquency (Heaven, 1996; Rushton & Chrisjohn, 1981), and variability (Munsterberg, 1913) and lack of consistency (Venables, 1956) in effort. Guilford (1977) summarized the frustration in trying to define extraversion by writing, 'Will the real factor of extraversion-introversion please stand up?' (p. 412). Cattell (1946, 1950) viewed the factor extraversion as a dirty amalgamation of different traits and, thus, for predictive purposes an irrelevant construct.

The purpose of this manuscript is not to provide evidence of yet another scale related to extraversion. The purpose of this manuscript is to propose that extraversion measured as a broad factor diminishes rather than enhances its utility when predicting the behavior of individuals within organizations. We find evidence that the 'dirty traits' comprising the broad factor of extraversion are *uniquely* important predictors. Across two studies we find support for a tripartite conceptualization of extraversion proffered by Tellegen and colleagues (Tellegen, 1985; Tellegen, Lykken, Bouchard, Wilcox, Segal, & Rich, 1988), and advanced by Watson and Clark (1997) that distinguishes between three specific traits of interest: surgency or excitement seeking (Costa & McCrae, 1992; Hogan & Hogan, 1992; Lucas, Diener, Grob, Suh, & Shao, 2000), sociability (Barrick & Mount, 1991) and positive emotion (Argyle & Lu, 1990; Pavot, Diener, & Fujita, 1990)¹.

2. Extraversion in organizations

2.1. Extraversion and organizational citizenship behaviors (OCBs)

OCB are beneficial behaviors exhibited by employees towards their employing organization (Organ, 1988). Both empirical (LePine, Erez, & Johnson, 2002) and theoretical (Moon, Van Dyne, & Wrobel, 2005) reviews have revealed a general trend toward empirical measurement of OCBs as a unitary construct related to behaviors such as helping others, compliance and sportsmanship. Two important ways in which OCB enhance organizational performance are through enhancing the stability of performance and the organizational ability to adapt to environmental changes (Podsakoff & MacKenzie, 1997).

Organ and Ryan (1995) conducted a meta-analytical review of antecedents to OCB and of the factors associated with the FFM, only conscientiousness and agreeableness received the necessary level of empirical support to consider. They grouped the few extraversion related studies under a general heading of positive

affectivity, and with the notable exception of conscientiousness, they failed to support a significant relationship between personality predictors and OCB. Specifically, they found *no* theoretical or empirical link between extraversion and citizenship.

Smith, Organ, and Near (1983) were the first to empirically test a relationship between the broad factor of extraversion and OCBs. They found no relationship between extraversion and either helping/altruism ($r = -.07$) or compliance ($r = -.05$). Beaty, Cleveland, and Murphy (2001) found minimal support for an extraversion to OCB link (they found an interaction between strength of situation and extraversion on OCBs in a laboratory experiment and no relationship in a field study). Therefore, to date there has been no substantial link, either empirically or theoretically, establishing a relationship between the broad factor extraversion and an individual's tendency to demonstrate citizenship behaviors in a work environment. The lack of findings regarding an extraversion to OCB link is best captured by Organ's (1994) comment that 'the most disappointing findings come from studies that take their personality measures unaltered from the Big Five or other factorially-derived frameworks. We can see now why this is not necessarily the most promising strategy' (p. 474).

We propose a multiphase solution to the missing link between extraversion and citizenship. First, we provide a theoretical roadmap detailing the conceptualization of extraversion from a single unitary factor to a tripartite model of facets related to sociability, surgency, and positive emotions. Second, we demonstrate how these facets differentially influence the type of organizational culture an individual is attracted to. Third, we then directly compare the predictive ability of the factor model to the facet model in predicting the citizenship of various employees.

2.2. Extraversion as a broad factor

The construct extraversion was introduced by Jung (1923) as one of the basic dimensions of our personality. Jung's initial treatment of extraversion was similar to other researchers' distinction between agency and communion (Adler, 1939; Bakan, 1966) or those having an outward orientation vs those having an inward orientation. The lexical (Allport & Odbert, 1936) and factor-analytic (Norman, 1963) tradition of personality research has consistently included a broad measure of extraversion as a central aspect of an individual's personality. Indeed, Watson and Clark (1997) note that extraversion or a form of extraversion is included in almost every personality scale developed over the past century. Norman (1963) is often cited as an originator of the FFM based on similarities between his five factor labels and those in use today. Interestingly,

the only broad factor for which he had more than one potential descriptor was extraversion for which he used both extraversion and surgency.

2.3. *Extraversion as two separate factors*

Hough (1992) provided a historic roadmap of how extraversion has been conceptualized among personality researchers and noted that most researchers tended to define extraversion as *either* a form of surgency (Goldberg, 1990) or sociability (Costa & McCrae, 1992) or they *split* the broad construct into separate factors (Hough, 1992). Hogan (1983) argued that extraversion was best measured as two distinct factors related to sociability and surgency.

On the one hand, sociability is a trait describing the interpersonal warmth of individuals. The proclivity for extraverts to seek interaction with others prompted Barrick and Mount (1991) to assert that extraversion might demonstrate a positive link with specific job criteria that require the formation and maintenance of positive work relationships. Barry and Stewart (1997) emphasized the warmth and popularity of extraverted individuals in their study of the effect of personality on self-managed work groups' process and outcomes.

On the other hand, extroverts have been demonstrated to have a lower baseline cortical rate as a result of which they seek higher levels of external stimulation (Eysenck, 1967, 1973). Introverts have a higher baseline rate, thus they are more readily over-stimulated. The cortical paradigm of extraversion depicts individuals high in this trait as those who seek exciting situations and sensitive to rewards (Gray, 1970, 1973).

In an attempt to capture the underlying core of extraversion, Lucas *et al.* (2000) tested two competing models of extraversion: sociability-as-core model and reward-sensitivity-as-core model (surgency). They developed a scale based on widely used items related to extraversion, and determined that reward sensitivity was more closely aligned to a higher order extraversion factor. Research by Stewart (1996) in a sales context provides additional evidence stressing the importance of incorporating reward sensitivity as a central aspect of extraversion. Stewart found that the relationship between sales and extraversion was moderated by the extent to which there was a transparent reward system linking sales performance to transparent rewards.

Our use of the term surgency is tempered by the realization that there are several distinct conceptualizations. Some authors have focused on surgency as a distinct construct (Hogan, 1983) while others have used construct labels with varying degrees of similarity such as excitement-seeking (Eysenck, 1967), reward-seeking (Lucas *et al.*, 2000), potency (Vinchur *et al.*, 1998) and

dominance (Watson & Clark, 1997). Nonetheless, research on forms of surgency and sociability as two separate facets of extraversion suggests that at least two aspects of extraversion have distinct influences in a workplace context. Whereas surgency is indicative of general excitement seeking, activity, and the pursuit of rewards within organizations, sociability has consistently been tied to interpersonal warmth.

2.4. *Extraversion as three related facets*

In addition to the facets of surgency and sociability, some have argued that positive affect also deserves attention. Although Lucas *et al.* (2000) focused on surgency (reward sensitivity) and sociability in determining a working definition of a single broad factor of extraversion, they acknowledged the important link between positive affect (Watson, 1988) and extraversion. In fact, their model presents positive emotion (pleasant affect) as a surrogate for extraversion. Positive emotion (positive affect) is defined as the general tendency for extroverted individuals to be happier. The link between extraversion and happiness (Argyle & Lu, 1990) and subjective well-being (Pavot *et al.*, 1990) has received substantial support (Tellegen, 1985; Tellegen *et al.*, 1988; Watson & Clark, 1997).

Tellegen (1985) proposes a hierarchical relationship such that positive emotion is the higher order factor and surgency and sociability represent two primary sub-factors. However, other researchers (Costa & McCrae, 1992) view positive emotion as another facet of a broad extraversion scale. Existing research is not conclusive on the hierarchical structure of a tripartite model of extraversion construct; therefore, we treat surgency, sociability, and positive emotion equally (see Costa & McCrae, 1992 for a similar strategy).

To date, we know of no published research that directly compares the *predictive* ability of a tripartite conceptualization of extraversion with the broad factor extraversion in an organizational setting. In two studies, we directly compare the utility of a broad measure of extraversion with a narrow conceptualization of extraversion.

3. Study 1

We begin by considering the influence that extraversion has on the type of organizational culture an individual applicant might be attracted to. The match between the needs and wants of the potential employee and that of the organization has been researched under the rubric of person-organization fit (Kristof, 1996). Judge and Cable (1997) documented how an individual's personality measured broadly (FFM) correlated with that individual's attraction toward different types of

organizational cultures related to innovation, detail-orientation, aggressiveness, outcome-orientation, supportiveness, rewards-orientation, decisiveness, and team-orientation (see O'Reilly, Chatman, & Caldwell, 1991 for a more detailed description of the cultural dimensions). Although Judge and Cable found support for relationships between extraversion and cultural attraction, closer inspection of their hypotheses revealed the complexity regarding predictions between the broad factor extraversion and organizational criteria.

Judge and Cable (1997) hypothesized that job seekers who score high on extraversion will be attracted to (a) aggressive and (b) team-oriented organizational cultures and less attracted to (c) supportive cultures. They hypothesized that the same extraverted individual who enjoys an aggressive culture enjoys teamwork. Moreover, the same extraverted individual who enjoys teamwork has a disdain for a supportive culture. We propose that a facet conceptualization of extraversion provides a more theoretically consistent pattern of predictions in regards to the type of culture an individual might prefer.

Moon (2001) introduced a theory that facets related to conscientiousness tapped either self-centered (achievement-striving) or other-centered (duty) aspects of an individual's personality. He suggested similar patterns might exist for facets of extraversion. On one hand, surgency has been conceptualized as a form of dominance, reward-seeking and excitement-seeking. It was suggested by Moon that an individual's level of excitement seeking or surgency would be positively related to self-centered criteria such as individual sales, which would engender individual recognition. This logic would provide a link between surgency and organizational cultures that promote the recognition of an individual. Thus, we propose that,

Hypothesis 1: Job seekers who score high on surgency will be attracted to (a) outcome-oriented, and (b) rewards-oriented organizational cultures

On the other hand, sociability has been conceptualized as interpersonal warmth and concern. Moon also suggested that an individual's level of interpersonal warmth or sociability would be positively related to other-centered criteria such as teamwork and citizenship, which would engender positive interpersonal relationships. An other-centered link with sociability would provide the theoretical justification for a sociable individual's preference for a different type of organizational culture than surgent individuals. Thus, we propose that,

Hypothesis 2: Job seekers who score high on sociability will be attracted to team oriented organizational cultures.

Although Lucas *et al.* (2002), and Tellegen (1985) consider positive emotions central to defining extraversion; personality researchers have often neglected to actively measure positive emotions in their conceptualization of a broad form of extraversion (Hough, 1992). Rather, positive emotions have often been researched under the rubric of positive affect. We suggest that an individual's level of positive emotions would be negatively related to a desire to work within an impersonal and antiseptic organizational culture while positively related to a desire to work within a supportive organizational culture. Thus, we propose that,

Hypothesis 3: Job seekers who score high on positive emotions will be attracted to supportive organizational cultures.

3.1. Method

3.1.1. Participants and research design

The participants for study 1 were 204 undergraduate students who participated as part of a voluntary non-compensated class assignment for which they received class credit and feedback. Participants were upper-class business students who would be scheduled to apply for positions at actual organizations within the next year.

Participants completed the personality measures (NEO PIR, Costa & McCrae, 1992) several weeks before completing the O'Reilly *et al.* (1991) organizational cultural preference questionnaire. We realize that our design is subject to criticisms related to same source bias. However, the research design was not subject to common method bias, as the organizational cultural preference questionnaire employed a Q-sort methodology. Moreover, our focus was on finding *differential* relationships between facets of extraversion and the broad factor extraversion. Previous research (Judge & Cable, 1997) has already established an extraversion to OCP link.

3.1.2. Measures

A major concern regarding a tripartite model of extraversion is that there is no current scale. Lucas *et al.* (2000) detailed the difficulty associated with developing an extraversion scale that does not confound elements of sociability and surgency. As a result, they created their own scale to test their particular theory of extraversion. Unfortunately, they did not have items related to positive emotions; rather they used positive emotions as a surrogate measure of extraversion. The only current scale that potentially incorporates all three facets of extraversion is the 48-item six-facet extraversion scale produced by Costa and McCrae (1992).

Employment of this scale, however, would lead to several complications such that facets related to gregariousness, assertiveness, activity, excitement-seeking, warmth, and positive emotions would have to be reconciled with our three facets of interest. Costa and McCrae (1992) suggested that, 'Making sense of 30 unrelated scales would be extremely difficult, and we have recommended that interpreters examine the facets domain by domain' (p. 18).

We chose to use a popular existing scale and demonstrate that it breaks down factorially into a reliable tripartite model with evidence of both face and content validity. We felt this was a conservative method to test our assertions such that we could not 'stack the deck' in our favor in regards to item choice. Most important in our decision was the hope that using an existing scale, rather than attempting to create yet another new scale, will allow researchers to re-analyze previous studies to determine the robustness of our assertions rather than having to conduct new studies. Therefore, we employed items used in the short version of the NEO-PIR questionnaire (60 questions 12 of which measure extraversion), which is used widely by both practitioners and researchers (Costa & McCrae, 1992).

We employed the tactics advocated by Fabrigar, Wegener, MacCallum, and Strahan (1999) to justify our tripartite scale. Initially we used the responses from a sample of 1541 undergraduates over a 1-year period to conduct an exploratory factor analysis (EFA:

un-rotated principle axis). A three-factor model emerged (Eigenvalues of 3.95, 1.23, and 1.04) explaining a cumulative 52% of the variance. We subsequently collected responses from an additional 2170 undergraduates from the same university over a separate period of time. None of the respondents in the second sample were involved in the initial sample. Based on the findings in our initial EFA we conducted a subsequent confirmatory factor analysis (CFA) of the 12 items. Comparing the one and three factor solutions, we find additional support that the three factor solution is significantly better than a single factor, $\Delta\chi^2 = 457$, $df = 3$, $p < .001$, and the overall fit of the model is acceptable. A visual content analysis of the potential facets (with reliability in parentheses) revealed facets related to surgency ($\alpha = .66$), sociability ($\alpha = .64$), and positive affectivity ($\alpha = .65$). Surgency included items like 'I like to be where the action is' and, 'My life is fast paced.' Sociability included items like 'I like to have a lot of people nearby' and 'I really enjoy talking to people.' Positive emotion included items like 'I laugh easily' and, 'I am a cheerful, high-spirited person.' Table 1 details the results of the CFA with a brief description of each of the 12 individual items. The broad factor extraversion had a higher reliability ($\alpha = .80$) than the facets, but that is to be expected because reliability is dependent upon the number of items (only four per facet) and the items were not grouped to inflate reliability scores. Nonetheless, the four item facet reliabilities were comparable to some of the facet reliabilities for the eight item

Table 1. Results of confirmatory factor analysis

| Model | χ^2 | df | χ^2/df ratio | SRMR | RMSEA | CFI |
|----------|----------|----|-------------------|------|-------|-----|
| 1 factor | 952 | 54 | 17.63 | .06 | .09 | .83 |
| 3 factor | 495 | 51 | 9.71 | .04 | .06 | .92 |

3 Factor solution

| Items | Facet name | Standardized factor loading | | |
|-------------------------|------------------|-----------------------------|-----|-----|
| | | 1 | 2 | 3 |
| 1. Like action | Surgency | .58 | | |
| 2. Bursting with energy | Surgency | .53 | | |
| 3. Fast-paced | Surgency | .53 | | |
| 4. Active | Surgency | .68 | | |
| 5. Lot of people around | Sociability | | .61 | |
| 6. Enjoy talking | Sociability | | .68 | |
| 7. Do things alone (R) | Sociability | | .50 | |
| 8. Go my own way (R) | Sociability | | .44 | |
| 9. Like to laugh | Positive emotion | | | .54 |
| 10. Light hearted | Positive emotion | | | .33 |
| 11. Cheerful | Positive emotion | | | .81 |
| 12. Not Cheerful (R) | Positive emotion | | | .61 |

Note: $N = 2170$. This table is based on the results of a CFA performed on the 12 items used in the NEO-PIR short form personality scale (Costa & McCrae, 1992). A key phrase from each scale item is used to ensure copyright protection while asserting face validity. SRMR, standardized root-mean-square residual; RMSEA, root-mean-square error of approximation; CFI, comparative fit index; CFA, confirmatory factor analysis.

facets found in the NEO PIR (see Costa & McCrae, 1992). Based on the results of the complementary factor analyses, we computed three four-item facets to represent the tripartite model of extraversion and then aggregated the same 12-items to measure the broad factor extraversion. In regards to our theory testing, the most critical aspect of our reported reliabilities is the fact that the reliabilities of the facets are similar to each other. This is critical to the extent that we compare the relationships between the facets and OCP.

3.2. Results

Table 2 shows the means, standard deviations and the intercorrelations of the variables of interest. Table 3 shows the results of parallel simultaneous regressions conducted to provide a direct comparison between measuring extraversion as a broad factor or several narrow facets (see Moon, Hollenbeck, Humphrey, & Maue, 2003 for a similar regression structure). Hypothesis 1 predicted that surgent individuals would find outcome-oriented and rewards-oriented organizational cultures attractive. We found support for elements of Hypothesis 1. Levels of surgency were positively related to attraction toward (a) outcome orientation ($\beta = .29$, $p < .05$, $\Delta R^2 = .06$ for step), but was not significantly related to (b) rewards orientation ($\beta = .15$, $p = .11$, $\Delta R^2 = .04$ for step). Hypothesis 2 predicted that sociable individuals would find team-oriented organizational cultures attractive. We found support for Hypothesis 2. Levels of sociability were positively related to attraction toward team orientation ($\beta = .27$, $p < .05$, $\Delta R^2 = .05$ for step). Hypothesis 3 predicted that individuals high in positive emotions would find supportive organizational cultures attractive. We did not find support for Hypothesis 3 ($\beta = .07$, $p = .44$, $\Delta R^2 = .00$ for step). Interestingly, those individuals high in positive emotions

evidenced a dislike for those organizations that emphasized rewards ($\beta = -.20$, $p < .05$, $\Delta R^2 = .04$ for step), and were outcome oriented ($\beta = -.21$, $p < .05$, $\Delta R^2 = .06$ for step).

An overall assessment of the results regarding the facets of extraversion revealed contrasts in regards to the type of organization an individual is attracted to. The surgent individual was attracted to an outcome-based organization. The sociable individual was attracted to a team-oriented organization. The positive individual had a dislike for a decisive organization. We were also surprised to find that positive individuals also disliked reward based and outcome based organizational cultures.

Most important to our theory was a general pattern such that the predictive ability of the facets of extraversion outperformed the broad factor extraversion. The pattern of results in Table 3 supported this general contention. The facets demonstrated significant relationships with five cultural preferences while the factor demonstrated significant relationships with only three cultural preferences. Moreover, the average reported variance explained by the facets (3.04) was three times higher than that of the broad factor (1.00).

3.3. Discussion

The purpose of study 1 was to provide a conservative test comparing the utility of a facet model of extraversion to that of a broad factor model of extraversion. The data supported the utility of the facets in regards to the type of organizational cultures prospective job seekers are attracted to. Our comparative findings between the facets and the factor of extraversion were based solely on how one adds up the items.

There are two underlying reasons for the surprising findings. First, that the facets provided a more

Table 2. Study 1: Means, standard deviations, and intercorrelations of organizational cultural preferences and the factor and facets of extraversion

| Variable | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|------------------------|------|------|-------|-------|-------|-------|-----|-------|-------|-------|------|------|------|----|
| 1. Innovation | 4.91 | .84 | | | | | | | | | | | | |
| 2. Attention to Detail | 4.71 | 1.12 | .04 | | | | | | | | | | | |
| 3. Outcome Orientation | 4.76 | .87 | .02 | -.06 | | | | | | | | | | |
| 4. Aggressiveness | 5.19 | 1.05 | .31* | .03 | .33* | | | | | | | | | |
| 5. Supportiveness | 5.84 | .83 | .05 | -.14 | -.24* | -.18* | | | | | | | | |
| 6. Emphasis on Rewards | 6.36 | 1.20 | -.20* | -.31* | -.07 | -.05 | .12 | | | | | | | |
| 7. Team Orientation | 5.44 | 1.15 | .07 | -.09 | .17* | .05 | .01 | -.15* | | | | | | |
| 8. Decisiveness | 4.38 | .91 | -.18* | .07 | -.27* | -.18* | .06 | .09 | -.24* | | | | | |
| 9. Surgency | 3.71 | .58 | .19* | -.08 | .13 | .14* | .01 | .11 | .09 | -.11 | | | | |
| 10. Positive Emotions | 3.66 | .60 | .07 | -.04 | -.08 | .07 | .06 | -.04 | .08 | -.04 | .59* | | | |
| 11. Sociable | 3.58 | .64 | .13 | .02 | -.01 | .13 | .03 | .10 | .21* | -.17* | .60* | .58* | | |
| 12. Extraversion | 3.65 | .52 | .15* | -.04 | .02 | .14* | .04 | .07 | .15* | -.13 | .85* | .85* | .86* | |

Note: $n = 204$. * $p < .05$.

Table 3. Study 1: Comparative regression results associated with predicting organizational cultural preferences from either facets of or the factor extraversion

| Dependent variable | Facet model | β | ΔR^2 (Step) | Factor model | β | ΔR^2 (Step) |
|---------------------|------------------|---------|---------------------|--------------|---------|---------------------|
| Innovation | Surgency | .21* | .04* | Extraversion | .15* | .02* |
| | Sociability | .06 | | | | |
| | Positive emotion | -.08 | | | | |
| Attention to detail | Surgency | -.14 | .01 | Extraversion | -.04 | .00 |
| | Sociability | .11 | | | | |
| | Positive emotion | -.03 | | | | |
| Outcome orientation | Surgency | .29* | .06* | Extraversion | .02 | .00 |
| | Sociability | -.06 | | | | |
| | Positive emotion | -.21* | | | | |
| Aggressiveness | Surgency | .14 | .03 | Extraversion | .14* | .02* |
| | Sociability | .08 | | | | |
| | Positive emotion | -.06 | | | | |
| Supportiveness | Surgency | -.04 | .00 | Extraversion | .04 | .00 |
| | Sociability | .01 | | | | |
| | Positive emotion | .07 | | | | |
| Emphasis on rewards | Surgency | .15 | .04* | Extraversion | .07 | .00 |
| | Sociability | .12 | | | | |
| | Positive emotion | -.20* | | | | |
| Team orientation | Surgency | -.04 | .05* | Extraversion | .15* | .02* |
| | Sociability | .27* | | | | |
| | Positive emotion | -.05 | | | | |
| Decisiveness | Surgency | -.06 | .04* | Extraversion | -.13 | .02 |
| | Sociability | -.20* | | | | |
| | Positive emotion | .10 | | | | |

Note: $n = 204$. * $p < .05$., two-tailed test.

compelling and logical link between extraversion and organizational cultural preferences. For example, it seems plausible to assert that a surgent individual would be enticed by an organization that is concerned with individual outcomes, and that a sociable individual would be attracted to an organization that promotes teamwork. To the degree that surgency and sociability are linked directly to different types of organizational cultures would imply that the other facets *depress* the true relationship between the proper facet and the criteria of interest.

Another potential reason for the superiority of the facets is that they may actually *suppress* the true relationship with criteria. Moon *et al.* (2003) identify this pattern as a mutually suppressive relationship wherein the opposite relationships between a set of highly correlated predictors and a criterion of interest are masked because of the correlation between the predictors. This would be evidenced by a pattern in which, in a bivariate sense, the predictors' true relationship with a criterion of interest would be subdued or masked. This masking could be revealed, however, by a simultaneous regression where the suppressive effect of the other highly correlated predictors is controlled. This type of analysis could show that the squared multiple correlation is greater than the sum of the squared bivariate correlations, and thus, the full predictive ability of the predictors is revealed.

4. Study 2

Study 2 compares the facets of extraversion with the factor extraversion to explain why extraversion has not demonstrated any relationship with OCB.

Sociability and OCBs. Individuals high on sociability (affiliation) according to Watson and Clark (1997) are those people who have warm feelings towards others, consider their interpersonal relationships of particular importance, and are strongly attracted to frequent social interaction. Watson and Clark also note that sociable individuals place 'a high value on close interpersonal relationships' and 'enjoy the company of others, and are strongly motivated toward frequent social interaction' (p. 776).

Hypothesis 4. Sociability will be positively related to organizational citizenship behaviors.

Positive emotion and OCBs. The existing literature suggests that there is a link between extraversion and happiness and well-being (Argyle & Lu, 1990; Pavot *et al.*, 1990). Positive emotion refers to a stable individual difference (trait) that indicates the extent to which an individual maintains a positive and upbeat mood (Watson & Pennebaker, 1989). Positive mood has already been examined as an antecedent to OCBs (George & Brief, 1992). George (1991), for instance, found that positive mood explained a significant amount

of variance in helping behaviors. To the degree that positive emotions leads to an overall tendency to experience positive affect, we predict that this aspect of extraversion would be positively related to OCBs.

Hypothesis 5. Positive emotion will be positively related to organizational citizenship behaviors.

Surgency and OCBs. Moon (2001) theorized that surgency (excitement-seeking) is related to self-centered tendencies, and Porter, Hollenbeck, Ilgen, Ellis, West, and Moon (2003) found that extraverts were more likely than introverts to seek and demand help but not provide it. To the extent that OCBs are conceptually linked with behaviors that are not rewarded by the formal structure would lead to surgent individuals refraining from these activities. Therefore, in line with the established body of literature documenting the more self-interested and reward seeking aspects of extraversion we expect the following relationship:

Hypothesis 6. Surgency will be negatively related to organizational citizenship behaviors.

4.1. Method

4.1.1. Participants and research design

Participants in this study were part-time evening MBAs presently working at actual organizations. The questionnaires were distributed during class and participation was voluntary. Participants were promised personality feedback in exchange for their participation and were awarded credit towards a research participation portion of the class. The focal individuals (MBA students) filled out personality questionnaires, and were instructed to hand out a survey to a co-worker who knew their work habits well and would be willing and able to accurately rate their level of citizenship. Using this procedure allowed us to avoid biases associated with self-reported measures on independent and outcome variables.

We received viable dyadic responses from 121 students, which represented nearly 78% of the total

pool of participants. The age of the respondents was between 22 and 42 years with a mean of 28 years. Females constituted 30% of the total sample. The respondents' ethnicity was predominantly White/Caucasian (75%) and the mean occupational tenure was 4.35 years. There were no differences between the respondents and the non-respondents in our sample.

4.1.2. Independent variables

Consistent with study 1 we employed the short version of the NEO-PIR questionnaire (60 questions 12 of which measured extraversion). The facets were computed exactly as they were in the previous study. The reliabilities in this sample for the facets were slightly higher than was found in the initial factor analyses samples (α surgency = .65, α sociability = .73, and α positive emotions = .73).

4.1.3. Dependent variables

For the organizational citizenship scale (α = .85), we incorporated nine items from the Podsakoff et al. (1990), MacKenzie, Podsakoff, and Fetter (1991) and Van Dyne, Graham, and Dienesch (1994). The scale included typical OCB items such as, 'Acts as a peace-maker when others in the organization have disagreements,' 'Helps others who have been absent,' and 'Defends the organization when other employees criticize it.'

4.2. Results

Table 4 provides means, standard deviations and intercorrelations for the variables used in this study. Parallel hierarchical regressions compared the broad factor extraversion with its factorially derived facets.

Table 5 describes the results from the regression analyses. Hypotheses 4 predicted that sociability would be positively related to OCB. Hypothesis 4 was not supported such that sociability was unrelated to OCB (β = -.05, NS, ΔR^2 = .06 for step). Hypotheses 5 predicted that positive emotion would be positively related to OCB. Support was found for Hypothesis 5 such that individuals high in positive emotion were more likely to engage in OCB (β = .19, p < .05,

Table 4. Study 2: Means, standard deviations, and intercorrelations of organizational citizenship behaviors and the factor and facets of extraversion

| Variable | M | SD | 1 | 2 | 3 | 4 | 5 |
|---------------------|------|-----|------|------|------|-----|---|
| 1. Sociable | 4.88 | .78 | | | | | |
| 2. Surgency | 5.48 | .96 | .36* | | | | |
| 3. Positive emotion | 5.10 | .81 | .50* | .43* | | | |
| 4. Extraversion | 5.15 | .80 | .80* | .71* | .84* | | |
| 5. Citizenship | 5.21 | .78 | .00 | -.12 | .14 | .10 | |

Note: n = 121. * p < .05.

Table 5. Study 2: Comparative regression results associated with predicting organizational citizenship behaviors from either facets of or the factor extraversion

| Dependent variable step | Variables (facets) | β | ΔR^2 (Step) | Variables (factor) | β | ΔR^2 (Step) |
|-------------------------|--------------------|---------|---------------------|--------------------|---------|---------------------|
| Citizenship | Sociability | -.05 | .06* | Extraversion | .00 | .00 |
| | Positive emotion | .19* | | | | |
| | Surgency | -.22* | | | | |

Note: $n = 121$. * $p < .05$.

$\Delta R^2 = .06$ for step). Hypotheses 6 predicted that surgency would be negatively related to OCB. Support was found for Hypothesis 6 such that individuals high in surgency were less likely to engage in OCB ($\beta = -.22$, $p < .05$, $\Delta R^2 = .06$ for step). The broad factor extraversion was unrelated to citizenship behaviors ($\beta = .00$, NS, $\Delta R^2 = .00$ for step). Indeed, our results demonstrate clearly the benefits of employing a facet level strategy with extraversion in that the variance explained by the three facets of interest explained a statistically significant 6% of the variance in citizenship behaviors while aggregating the same facets into a broad factor of extraversion explained a non-significant 0% of the variance.

4.3. Discussion

The pattern of results in study 2 provided a compelling explanation for why researchers have had such trouble relating extraversion to citizenship. The results demonstrated another example of a mutually *suppressing* relationship detailed in study 1. The bi-variate relationships between surgency ($r = -.12$) and positive emotions ($r = .14$) and OCBs were not significant while the partialled correlations between surgency (partialled $r = -.19$) and positive emotions (partialled $r = .21$) and OCBs were both significant and in opposite directions. The results for study 2 also support the importance of positive mood in predicting organizational citizenship behaviors (George, 1991). Positive emotions were a more important predictor of OCBs than sociability. Perhaps, sociability is more about relationships than it is action.

5. General discussion

Schwab (1980) discussed construct validity in the organizational sciences, and differentiated between substantive validation (i.e., construct validation via demonstrating relationships between a construct and different constructs) and constitutive validation (i.e., construct validation of 'the relationship between the results obtained from measures and the concepts or constructs the measures are purported to assess' p. 4).

He noted that in his opinion, substantive research has been overemphasized in organizational behavior research. We concur with this statement generally, but add that we feel in the personality literature specifically, the opposite may be true.

Over the past half-century, personality theorists have spent a substantial amount of time and effort to define our personality using a constitutive approach (Cattell, 1946, 1950). This has been a major point of contention among those who have argued against a blanket acceptance of the FFM (Waller & Ben-Porath, 1987). An over reliance on the tools of constitutive research such as factor analysis (Block, 1995) over theory generation (McAdams, 1992) captures the sentiment of those who have concerns that we may be artificially limiting the potential explanatory ability of personality constructs by blindly accepting the FFM as the most effective way to measure our personality.

We have no doubt that items pertaining to surgency, sociability and positive emotion might 'group' together factorially when compared with items related to conscientiousness, neuroticism and other broad factors. However, we feel that the predominant focus on constitutive construct validity of extraversion compared with other broadly defined constructs has led to a failure to distinguish potentially important substantive differences at the facet level.

5.1. Psychometric properties of extraversion and its facets

We temper our enthusiasm by stressing that the purpose of this series of studies was *not* to validate a scale regarding extraversion. We feel that future research can use our framework to develop a scale that improves upon the psychometric properties which fully captures the facets and the factor extraversion. A limitation of our study is that our strategy created facets that were somewhat weak in regards to their reliability. Certainly, much of this can be traced to the limited number of items per facet. However, the recent work by Lucas *et al.* (2000) bears attention. They detail the difficulty in creating appropriate extraversion scales. Items such as 'I like to go to parties' could capture both surgent and sociable tendencies. Indeed, in our factor

analyses a few items had substantial cross-loadings. For example, the degree to which respondents state that they enjoy talking taps all three facets, while the degree to which respondents state that they are cheerful taps both surgency and positive emotions.

We feel that among the three facets under investigation, surgency is the least understood. A level investigation of what exactly surgency is and how to best measure it is best left up to future research. We advocate a thoughtful dialogue as to whether surgency is best conceptualized as reward seeking (Lucas *et al.*, 2000), excitement seeking (Eysenck, 1973), potency (Vinchur *et al.*, 1998), or a combination of these.

5.2. Organizational utility of extraversion and its facets

A direct application of our theory in organizations relates to the typical selection interview. Our findings reveal the danger in assuming that just because an individual seems to be extraverted we can assume a certain consistent set of behaviors. One extravert is not necessarily the same as another extravert. Without consideration of the subtleties embedded in the broad extraversion construct, it is easy to mistake surgency with sociability with positive emotions. We extol future research that further refines the underlying differences between these facets.

The final question we would like to address is the implication of our findings in regards to the hierarchy of personality constructs. We do not intend to argue that sociability, positive emotion, and surgency are either the only relevant facets of extraversion or that they should be considered broad factors and take their place along-side conscientiousness and neuroticism. Sociability, surgency, and positive emotions are indeed facets of extraversion and should be measured as such. However, we feel that our collection of studies provides ample support to declare that extraversion needs to be considered at both the facet and factor level prior to the conduction of research.

Note

1. Tellegen *et al.*'s (1988) conceptualization of a tripartite model of extraversion included the following three labels for their facets: positive emotionality, agentic positive emotionality, and communal positive emotionality. After a thorough review of the literature, we chose the most direct and often used labels: positive emotions (positive emotionality and affect) surgency (agentic positive emotionality) and sociability (communal positive emotionality). We understand that various authors cited in this manuscript may have used slightly different labels with, perhaps, slightly different definitions. Instead of defining

each and every label that has been given to extraversion and its facets and defining the precise meaning of each researcher, we chose to use these three labels for purposes of consistency, and parenthesize different labels used by our cited researchers.

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