Dong, Nan
2005

The role of empathic concern in the relations of personality and organizational citizenship behavior

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THE ROLE OF EMPATHIC CONCERN IN THE
RELATIONS OF PERSONALITY AND
ORGANIZATIONAL CITIZENSHIP BEHAVIOR

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The Role of Empathic Concern in the Relations of Personality and Organizational Citizenship Behavior

Nan Dong

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Abstract

The present study examined how personality characteristics affect organizational citizenship behaviours directed toward individuals (OCBI), and the mediating effects of empathic concern in personality facet-OCBI relations. Participants were 195 employees of various business organizations located in a southwest Canadian city. Each participant completed questionnaires assessing personality and OCBI. Analyses revealed that empathic concern, anger, friendliness, and emotionality were related to OCBI. As predicted, empathic concern mediated the relation of anger, friendliness, and emotionality with OCBI. The results of this study suggest that specific facets of the broad Big 5 dimensions are useful in predicting OCBI and that empathic concern may be a key variable explaining why the relations exist.
Acknowledgments

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Introduction

Organizational citizenship behaviors (OCBs) are extra-role, discretionary behaviors that help other organization members complete their work or support the organization in some way (Smith, Organ, & Near, 1983; Bateman & Organ 1983). The practicality of OCBs is they may improve the efficiency and effectiveness of organizations by transforming and securing resources (Organ, 1988). For example, if employees voluntarily do more work than organizationally required tasks, the organization may obtain more output without increasing inputs such as employees’ salaries. Indeed, some research has found that OCB exhibits positive relations with employees working performance (e.g. Podsakoff, Ahearne, & MacKenzie, 1997; Podsakoff & MacKenzie, 1994; Walz & Niehoff, 1996) and is negatively related to withdrawal behaviors such as tardiness (Hattrup, O’Connell, & Wingate, 1998), lateness and absenteeism (Ladebo, 2005).

Researchers have categorized OCBs. For example, Organ (1988; 1994) described five OCB dimensions. Altruism refers to discretionary behaviors that help other persons with an organizationally relevant task or problem. Compliance or conscientiousness refers to behaviors that go beyond the minimum organizationally required levels of performance. Examples include attendance, cleanliness, and punctuality. People engaging in sportsmanship refrain from complaining about minor affairs. Courtesy refers to discretionary behaviors that either help other persons prevent problems from occurring or alleviate problems that have already occurred. Finally, civic virtue refers to responsible participation in the governance of the organization. Williams and Anderson (1991) classified three broad categories called: 1) in-role behaviors (IRB), 2) citizenship
behavior directed towards individuals (OCBI), and 3) citizenship behavior towards organizations (OCBO). LePine, Erez, and Johnson (2002) noted similarities between Organ’s (1988; 1994) and Williams and Anderson’s (1991) work. They believed that altruism and courtesy reflect OCBI and that sportsmanship, civic virtue, and conscientiousness are OCBOs.

There are two main streams of OCB research: situational causes and individual/group differences (Moorman & Blakely, 1995). Situational cause research focuses on factors that arise from individual perceptions of either the nature of their job or working relationships. These perceptions influence the likelihood of individuals engaging in OCB. Individual/group difference research examines characteristics that differentiate those who engage in OCBs from those who do not.

Previous research has studied situational causes. For example, job characteristics such as task variety, autonomy, and task significance were positively related to OCB frequency (Cappelli & Rogovsky, 1998). Researchers also found that OCB was positively related to job attitudinal variables, such as job satisfaction (Bateman & Organ, 1983), job fairness (Moorman, 1991), organizational identification (Feather & Rauter, 2004), and organizational commitment (Becker, 1992; Feather & Rauter, 2004).

Other OCB researchers examined the relation between individual and group difference variables with OCB. For example, Blakely, Andrews, and Fuller (2003) found a positive relation between self-monitoring and interpersonal OCBs but did not find a relation between self-monitoring and OCBs towards the organization. Moorman and Blakely (1995) studied individualism-collectivism as a predictor of OCBs and found that individuals holding collectivistic values would be more likely to engage in citizenship
behavior. Kidder (2002) investigated gender, gender orientation, and gender dominated occupation choice with OCB. She found females were less likely to perform civic virtue behavior but more likely to engage in altruism behavior than males. She also found that people in nursing, a traditional female type job, were more likely to perform altruism behaviors and less likely to perform civic virtue behaviors than people in engineering, a male type job. While the above research contributed to our understanding of organizational citizenship behavior, issues concerning the topic remain.

Dispositional factors such as personality may be important individual difference variables attracting OCB researchers’ interest. Bateman and Organ (1983) indicated that the reason personality might predict OCB was that people with some personality traits might have higher tendency to be satisfied with their job while people with other personality traits might tend to be less satisfied. In other words, some personality traits might predict job satisfaction and the higher the job satisfaction level, the greater the likelihood of these individuals performing behaviors beyond those required on the job. Attitudinal factors such as a tendency toward job satisfaction might account for the connection between personality and OCB (e.g. Konovsky & Organ, 1996; Organ & Ryan, 1995; Smith et al., 1983). For example, Smith et al. (1983) found that job satisfaction mediates the neuroticism-OCB relation. Konovsky and Organ’s (1996) found that employees’ perceived fairness and supervisor satisfaction mediate the agreeableness-OCB relation. Jones and Schaumbroeck (2004) found that job satisfaction mediates the relation between negative affectivity and citizenship behaviors. Perhaps traits such as positive affectivity, negative affectivity, agreeableness, and conscientiousness affect people’s attitudes, such as satisfaction, fairness, and supportiveness, regarding co-
workers, supervisors, and the organization. These attitudes influence the likelihood that people engage in OCB (Organ & Ryan, 1995).

Despite the suggestion that personality relates to the frequency with which people emit OCBs, research investigating the relations between some general personality traits and citizenship behaviors yield inconsistent results. Inconsistent relations appear to occur in those studies using measures of broad personality dimensions from factorially derived scales, such as the “Big Five” personality traits (Organ, 1994). For example, Neuman and Kickul (1998) found a negative extraversion-OCB relation but Smith et al. (1983) found no relation between these two variables. Day and Carroll (2004) found a positive openness to experience-OCB relation but LePine and Dyne (2001) did not. Neuman and Kickul (1998) found a positive agreeableness-OCB relation but Konovsky and Organ (1996) did not. Indeed, reviews from Organ (1994), Organ and Ryan (1995), and Borman, Penner, Allen, and Motowidlo (2001) suggested that only agreeableness and conscientiousness exhibit consistent effects on OCB whereas the other three Big 5 dimensions do not.

An alternative to studying the broad general personality Big 5 factors is to focus on theoretically relevant facets comprising the Big 5 dimensions (Organ, 1994). Each Big 5 dimension contains specific facets. Perhaps some of the facets of a single dimension are related to OCBs where others are not. Aggregating all the related and unrelated facets into each Big 5 dimension may have the effect of masking important facet-OCB frequency relation thereby hindering progress in understanding the relation of individual personality differences with OCB.
Other factors may also play key roles in explaining the relation between personality traits and citizenship behavior. Spector and Fox (2002) demonstrated how variables such as a person’s emotional state, human perception and personality influence individual behaviors. The nature of emotional response (negative or positive) determines an individual’s behavior tendency. People tend not to help other person if they believe the helping behavior will cause negative emotion (Isen, 1987). If they believe their behavior will enhance their moods, they will quite likely behave accordingly. If they believe their behavior causes them emotional discomfort, they may not perform the behavior (Spector & Fox, 2002).

While variables such as affectivity and job perceptions may account for the relation between personality and citizenship behaviors, surprisingly little research has investigated one personality variable often identified as important in the helping professions such as counseling. Empathic concern may play an important role explaining the relation of other personality constructs with citizenship behavior. In this study, I examine the role of empathic concern as a mediator of four facets of the Big 5 dimensions and OCBIs. The four facets are depression, anger, friendliness, and emotionality.

**Empathic concern**

Theorists, psychotherapists, and psychologists have developed the concept of empathy over the past few decades (e.g. Duan & Hill, 1996; Gladstein, 1977, 1983). While there are some differences in the conceptualization of empathy, researchers generally agree that empathy involves an individual’s understanding of another person’s experience or the sensing of another person’s emotions. One view, the dispositional
empathy view, assumes individuals have different empathic levels as a function of heredity and/or environmental experiences (Duan & Hill, 1996). Here, empathy has multi-characteristics, including emotional and nonemotional components, and can be viewed as both a personality trait and a cognitive ability (Davis, 1983a, 1983b).

Davis (1980, 1983a) developed a multidimensional approach to explain empathy. Davis’ approach views empathy as a set of four multidimensional constructs. Perspective taking is one dimension of empathy. It refers to the ability of people to cognitively identify with others. Fantasy refers to tendencies of people to imagine themselves as fictitious characters in books, movies, and plays. Personal distress refers to the degree to which people feel anxiousness, distress, and unease in tense interpersonal settings. Finally, empathic concern (EC) refers to the experience of sympathetic feelings or consideration for others’ misfortune.

Of these four dimensions, it appears that empathic concern is the dimension that corresponds most with OCBI because it specifically addresses concern for others when they need help. Fantasy does not focus on specifically helping others and personal distress refers to a large set of situations that do not necessarily involve helping other people. Finally, the ability to identify cognitively and take the viewpoint of other people does not necessarily have to do with the plight of others. Indeed, it is possible for one to realize that someone else is experiencing misfortune and to identify with that individual because of first hand experience; however, that does not necessarily mean that one feels sympathetic towards the suffer. One may be glad that the other person is experiencing misfortune. Thus, it is possible to identify with another without experiencing the emotional component that theories highlight as a key to explaining empathic behavior.
Empathic concern and OCBI

Researchers have developed at least two perspectives offering explanations as to why the empathic concern would predict OCB frequency – the Negative State Relief (NSR) Model and an Empathy-Altruism hypothesis. The NSR model (Cialdini, Darby, & Vincent, 1973; Cialdini & Kenrick, 1976; Cialdini et al., 1987) suggests that high empathic individuals are in a negative affective state - a temporary sadness or sorrow when they observe others’ suffering. The way empathic individuals relieve this negative state is by helping the suffering individual. Thus, empathic individuals, motivated by egoistic reasons, help other people as a way of making themselves feel better.

This model is useful in explaining why empathic concern relates to OCB. Employees higher in empathic concern are more able to understand others’ experience or emotions than people lower in empathic concern because, like the sufferer, the empathic employee also feels bad. To relieve their own negative affective state, people higher in empathic concern will be more likely to help others by emitting OCBs than less empathic individuals who do not experience negative affective reactions when observing distressed co-workers. In sum, employees’ understanding of others’ experiences may create an aversive emotional arousal that motivates the employees to engage in citizenship behaviors as a way to alleviate their own negative affectivity.

A second perspective, the Empathy-Altruism hypothesis states that people may have a true desire to alleviate others’ distress rather than a desire to relieve one’s own negative emotional state (Batson, Duncan, Ackerman, Buckley, & Birch, 1981; Hoffman, 1984, 1987). Based on this explanation, individuals higher in empathic concern are more considerate than individuals who are lower in empathic concern. When they observe a
suffering other, their sympathetic feeling may motivate them to help. Thus, people higher in empathic concern, with other-oriented or altruistic motivation, are more likely to help others in need as a way to relieve others’ problem-derived distress.

This perspective is also useful in explaining why empathic concern relates to OCB. Employees higher in empathic concern are more likely to perceive and experience others’ negative emotions, and therefore be more likely to engage in OCBs than employees who are lower in empathic concern. Observing a co-worker’s distress is likely to arouse sympathetic feelings that are the essence of empathic concern. Employees’ consideration for others may also create an other-oriented or altruistic emotional arousal that motivates those higher in empathic concern to be more likely to engage in OCBs than people lower in empathic concern because OCB is one way to relieve others’ negative affective state.

To this point I have used theory to explain how empathic concern affects behavior toward other people. Therefore, I limit my study of OCB to behaviors directed towards individuals (OCBI). Indeed, McNeely and Meglino (1994) found that empathic concern was positively related to prosocial behaviors directed only toward individuals, but was not related to prosocial behaviors directed toward the organization. Settoon and Mossholder (2002) also found empirical evidence for empathic concern-OCBI relationship.

Hypothesis 1: Employees higher in empathic concern will be more likely to engage in OCBIs than people lower in empathic concern.
The components that influence people’s emotional responses and interpersonal relationships may account for the relation between empathic concern and some sub factors of “Big Five” personality dimensions. In fact, psychological researchers found that a few specific personality variables derived from the Big 5 dimensions relate to empathy. For example, Vesprani (1969) found a negative relation between empathy and depression, which is one facet from the neuroticism dimension. Strayer and Roberts (2004a; 2004b) found a negative relation between empathy and anger. Anger is another facet of the neuroticism dimension. Barrow (1977) found that friendliness, one facet of extraversion, was positively related to empathy. Eisenberg et al., (1991; 1994) found that emotionality, an openness to experience facet, was also positively related to empathy. Perhaps these facets that are related to empathy also predict OCB. In the present investigation, I examined the relation of depression, anger, friendliness, and emotionality with OCB. I also examined the role empathic concern has in explaining those relations.

Depression

Within the Big 5 dimensions, neuroticism represents the tendency to experience negative affect such as depression, frustration, guilt, and anxiety. It is often associated with irrational thinking, low self-esteem, or impulsive behaviors (McCrae & Costa, 1987, 2003). Depression, one facet of neuroticism, represents the tendency to experience sadness, sorrow, hopelessness, loneliness (McCrae & Costa, 2003), and guilty feelings (O’Connor, Berry, Weiss, & Gilbert, 2002).

Perhaps depression is related to both empathic concern and OCB. Individuals higher in depression may have a pessimistic view of the self, the world, and the future
and more likely to focus on the negative aspects of the events than individuals lower in depression (Rehm, 1977). People higher in depression may not think their involvement will affect the situation outcomes in a positive way because of their stringent self-evaluation compared to people lower in depression (Rehm, 1977). Depressed people may think their perceived level of competence is low and researchers have found that depression is negatively related to self-evaluated social competence (e.g. Bell-Dolan, Reaven, & Peterson, 1993; Gable & Shean, 2000). To summarize, more depressed people may be less likely to help others than less depressed individuals.

The research examining the relation between empathy and depression is mixed. Some researchers found a negative relationship between depression and empathy (Lee, Brennan, & Daly, 2001; Lengua & Stormshak, 2000; Vesprani, 1969) and/or empathic concern (Ghorbani, Bing, Watson, Davison, & LeBreton, 2003). On the other hand, other researchers found a positive relation between depression and empathy in general (Gawronski & Privette, 1997) and/or some empathy dimensions such as personal distress (Ghorbani, et al., 2003). Perhaps more depressed people experience greater guilt for being better off than others than less depressed people. The increased guilt level leads to greater empathic reactions (O’Connor et al., 2002). These conflicting findings may be the result of a failure to distinguish between self and other-oriented depression (O’Connor, et al., 2002). Other-oriented depression originates from feelings of guilt but self-oriented depression is typically due to negative feelings such as shame, fear, or envy. O’Connor et al. (2002) also found that self-oriented depression might appear more in a non-clinical sample while other-oriented depression might appear more in a clinical
sample. Given this study focuses on a non-clinical population in an organizational setting, less depressed people should be more empathic.

In sum, I expect that depression is negatively related to OCBI as depressed employees experience less empathic concern for others than individuals who are lower in depression. As a result, more depressed people may be less likely to help others than less depressed people.

**Hypothesis 2:** Empathic concern mediates the negative relation between depression and OCBI.

**Anger**

Anger hostility, another facet of neuroticism, indicates the tendency to be irritable and hostile, and people with the trait anger may be hard to get along with (McCrae & Costa, 2003). The reason people become angry often stems from their conflict with outside interactions, especially when consequences are unexpected and negative (Averill, 1982). Anger-loaded memories are more easily activated within individuals higher in anger than are people lower in anger. The former may be more likely to misunderstand others’ feelings and viewpoints and are more likely to have conflict with others than are people lower in anger (Strayer & Roberts, 2004a). Thus, people higher in anger may be less likely to experience empathic concern than people lower in anger. On the other hand, people lower in anger may be less likely to feel irritated or impatient and may better understand the sufferer than people higher in anger. Indeed, researchers found a negative anger-empathy relation (Strayer & Roberts, 2004a, 2004b; Mehrabian, 1997). I believe the empathic concern dimension of empathy is a critical trait because someone
can cognitively realize that a person is experiencing misfortune but their anger attenuates their concern and hence willingness to help others.

I expect anger to exhibit a negative relationship with OCBIs. Individuals higher in anger are less likely to engage in citizenship behaviors because they are less likely to empathically experience other people’s feelings than people lower in anger. As a result, people higher in anger will be less likely to assist others than people lower in anger.

**Hypothesis 3: Empathic concern mediates the negative relation between anger and OCBi.**

**Friendliness**

Friendliness is a facet of the Big 5 dimension called extraversion. Friendliness, or warmth, indicates the tendency to be friendly, cordial, and intimate within personal interaction (McCrae & Costa, 2003). People higher in friendliness tend to have closer relationships with others than people lower in friendliness. It seems reasonable to assume that people who feel closer to a particular individual are more likely to experience that individual’s negative affective state than more aloof people. Indeed, there is evidence of a relation between friendliness and empathy in therapists and their assistants (e.g. Barrow, 1977, Wyrick & Mitchell, 1971). Perhaps it is the heightened empathic concern stemming from closeness that motivates people to engage in OCBs.

I expect that friendliness is positively related to OCBIs. People in higher friendliness have a higher tendency to consider others’ situation (Wyrick & Mitchell, 1971). When they find someone in a needy situation, they may be less likely to help the person because they are higher in empathic concern than people lower in friendliness.
Hypothesis 4: Empathic concern mediates the positive relation between friendliness and OCBI.

Emotionality

Emotionality, or feelings, is a facet of the Big 5 dimension called openness to experience. It refers to the tendency to experience people’s own feelings (McCrae & Costa, 2003). More emotional people tend to be easily aroused and affected by emotional stimuli than people lower in emotionality. People who experience high-intensity of emotional reactions may exhibit more vicarious emotional responses than those who do not experience as intense emotional reactions (Eisenberg et al., 1991).

I believe emotionality is related to empathic concern because empathy involves emotional arousal (Eisenberg et al., 1991). The difference between the two concepts is that empathy, in general, has to do with understanding others while emotionality has to do with sensitivity to self emotion. It is the sensitivity to emotion that I feel directly corresponds with the empathic concern dimension of empathy. The difference between empathic concern and emotionality is that empathic concern appears to focus on misfortune. Emotionality appears to deal with a broad range of emotions such as fear and happiness.

Individuals higher in emotionality may be more likely to respond to outside emotional stimuli and experience emotions more often than people lower in emotionality. As a result, when more emotional people see a suffering other, they may be more likely to perceive and experience the sufferer’s emotion than less emotional people. Indeed, researchers have documented a relation between emotionality and empathic concern (Davis, 1983; Eisenberg et al., 1991, 1994; Okun, Shepard, & Eisenberg, 2000). For
example, Sonnby-Borgstrom (2002) found that highly empathic people are more likely to be emotionally affected than less empathic people. Therefore, it is reasonable to suggest that there is a positive relation between empathic concern and emotionality.

People higher in emotionality are more sensitive to outside emotional stimuli and are more likely to experience empathic concern than people lower in emotionality. In organizational settings, higher empathic concern may lead to an increased probability of helping to resolve the co-workers’ problems.

**Hypothesis 5: Empathic concern mediates the positive relation between emotionality and OCB.**

Based on above discussion, I developed a diagram to show the possible relationship among these variables (Figure 1).

**Figure 1. A path diagram of the relation among personality variables and OCBI**
Method

Procedure

Participants were employees in a medium sized Alberta city. They work in different organizations such as retail stores, restaurants, educational institutions, and banks. I went to each organization and asked managers if I could send my questionnaires to their employees. After obtaining permission, I asked the employees whether they would like to be involved in this study. I also asked the managers to help me send my questionnaires to employees. Participants agreeing to participate completed a questionnaire containing a measure of OCBI frequency, empathic concern, depression, anger, friendliness, and emotionality. They also completed a demographic questionnaire. Participants could ask me to pick up their completed questionnaires at their workplace. I also provided postage-paid envelopes for participants who wanted to mail the materials back to me.

Measures

Organizational Citizenship Behavior Towards Individuals (OCBI)

I assessed OCBI using the six item scale Turnley, Bolino, Lester, and Bloodgood (2003) adapted from Williams and Anderson’s (1991) work. Participants indicated the degree to which they emit an OCB using a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Turnley et al. (2003) report that the scale scores are reliable ($\alpha = .88$). Scale score reliability in this study was satisfactory ($\alpha = .77$). Appendix 1 contains the scale.
Empathic concern.

I used the Empathic Concern Scale of the Interpersonal Reactivity Index (Davis, 1980, 1983b, 1996) to assess empathic concern. Participants indicated on a 5 point scale the degree to which each item describes them. Scale anchors range from 0 (does not describe me well) to 4 (describes me very well) on this 7-item scale. Lower scores represent lower empathic concern. Scale score reliability in this study was adequate ($\alpha = .77$). Appendix 2 contains the scale.

Depression

I used the Depression Scale from the International Personality Item Pool (Goldberg, 1999; International Personality Item Pool, 2001) to assess depression. The IPIP is a web-based pool of items produced for the purpose of providing alternative versions of some popular personality questionnaires. Participants read 10 items and rated each item on the degree to which the item described them. Anchors ranged from 1 (Very inaccurate) to 5 (Very accurate). Goldberg (1999) reported the scale’s Cronbach’s alpha was .88, and that the scale’s score correlated .80 with the Depression Scale of the Revised NEO Personality Inventory (NEO-PI-R; Costa & McCrae, 1992). Scale score reliability in my study was good ($\alpha = .88$).

Anger

I used the Anger Scale from the International Personality Item Pool (Goldberg, 1999; International Personality Item Pool, 2001) to assess anger. Participants read 10 items and rated each item on the degree to which the item described them. Anchors ranged from 1 (Very inaccurate) to 5 (Very accurate). Goldberg (1999) reported the
scale’s Cronbach’s alpha was .88, and that the scale’s score correlated .76 with the Angry Hostility Scale of the NEO-PI-R (Costa & McCrae, 1992). Scale score reliability in my study was good (α = .88).

Friendliness

I used the Friendliness Scale from the International Personality Item Pool (Goldberg, 1999; International Personality Item Pool, 2001) to assess friendliness. Participants read 10 items and rated each item on the degree to which the item described them. Anchors ranged from 1 (Very inaccurate) to 5 (Very accurate). Goldberg (1999) reported the scale’s Cronbach’s alpha was .87 and that the scale’s score correlated .76 with the Warmth Scale of the NEO-PI-R (Costa & McCrae, 1992). Scale score reliability in my study was good (α = .90).

Emotionality

I used the Emotionality Scale from the International Personality Item Pool (Goldberg, 1999; International Personality Item Pool, 2001) to assess emotionality. Participants read 10 items and rated each item on the degree to which the item described them. Anchors ranged from 1 (Very inaccurate) to 5 (Very accurate). Goldberg (1999) reported that the scale’s Cronbach’s alpha was .81 and that the scale’s score correlated .70 with the Feelings Scale of the NEO-PI-R (Costa & McCrae, 1992). Scale score reliability in my study was good (α = .81). Appendix 3 contains the Depression, Anger, Friendliness, and Emotionality scales.
Demographic Variables

Research has documented that gender and age are related to OCB frequency. Kidder (2002) found gender differences in the types of OCB that people emit. Kuehn and Al-Busaidi (2002) found that older people emit more OCB than younger people. I also collected information about participants’ years of work experience, occupation, type of the organization, and position to assess their relations to OCBI and will statistically control for their effects if I detect that they are related to OCBI. Appendix 4 contains the questions measuring demographic variables.

Data Analysis

I conducted correlation and regression analyses to test my hypotheses. Specifically, I employed Baron and Kenny’s (1986) method for assessing mediating relations among variables. To document a mediating relation, the predictor must relate to the mediator, the mediator must relate to the criterion, and the mediator must predict criterion variance after statistical control of the predictor. Complete mediation occurs when the predictor does not account for unique criterion variance after statistical control of the mediator. I examined relationships by inspecting correlation values. I assessed unique contributions to criterion variance via inspection of the standardized regression coefficients associated with the predictor and mediator when I regressed OCBI on each of the predictors and empathic concern.
Results

Participants

I had administered, or asked managers to distribute, a total of 328 packets containing the research materials. Participants returned 197 of the 328 (60.1%) packets. I eliminated one respondent’s data because the participant was a storeowner. My target participants were employees. I eliminated a second respondent’s data because the participant chose the same response for 98% of all questions asked. Overall, 195 participants provided data in this study. Missing data reduced the sample size to a low of 184 for hypotheses testing.

Participants were 118 females and 77 males. Most participants (n = 126) were in non-supervisory positions. There were 68 managers or supervisors providing data. The average age of the 194 participants providing age data was 33.8 (range from 16 to 64 years old). The average years of work experience of the 193 participants responding to that item were 15.6 (range from 1 year to 45 years). After removing participants who had provided multiple responses to the occupation (n = 21) and organization (n = 12) demographic items, I found that most of the respondents worked in retail organizations (n = 52), restaurants (n = 22), banks (n = 34), or non-academic university departments, such as maintenance, construction, shipping and receiving, and technical/professional (n = 22).

Hypotheses Testing

Table 1 contains means, standard deviations, and zero-order correlation values among OCBI, the five personality variables, and demographic variables. None of the demographic variables was related to OCBI. Nearly all of the personality variables were
Table 1. Descriptive statistics and intercorrelations of study variables

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<td>-.18*</td>
<td>-.18*</td>
<td>.49***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Friendliness</td>
<td>3.80</td>
<td>.72</td>
<td>.43***</td>
<td>.17*</td>
<td>-.37***</td>
<td>-.18*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Emotionality</td>
<td>3.28</td>
<td>.60</td>
<td>.21**</td>
<td>.52***</td>
<td>.19*</td>
<td>.18*</td>
<td>.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Age</td>
<td>33.98</td>
<td>12.51</td>
<td>.10</td>
<td>.15</td>
<td>-.12</td>
<td>-.15*</td>
<td>.04</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Gender a</td>
<td>.39</td>
<td>.49</td>
<td>-.06</td>
<td>-.26**</td>
<td>-.09</td>
<td>.05</td>
<td>-.11</td>
<td>-.25**</td>
<td>-.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Work Experience in years</td>
<td>15.64</td>
<td>11.13</td>
<td>.13</td>
<td>.18*</td>
<td>-.10</td>
<td>-.14</td>
<td>.07</td>
<td>.03</td>
<td>.93***</td>
<td>.00</td>
<td></td>
</tr>
</tbody>
</table>

Note. n = 172. I derived all values using listwise deletion. OCBI = organizational citizenship behavior towards individual. EC = empathic concern. Cronbach’s alpha values are in parentheses.

a 0 = Female, 1 = Male.

*p < .05. **p < .01. ***p < .001. (2-tailed).

correlated with each other. Depression was positively correlated with anger (r = .49, p < .001) and emotionality (r = .19, p < .05). It was negatively related to friendliness (r = -.37, p < .001). Anger was negatively related to friendliness (r = -.18, p < .05) and positively related to emotionality (r = .18, p < .05). Both OCBI and empathic concern were positively related to friendliness and emotionality and negatively related to anger.

Data show that empathic concern and OCBI were related (r = .37, p < .001). These data support Hypothesis 1 positing a relation between OCBI and empathic concern. Neither OCBI nor empathic concern was related to depression. The data does not support the
second hypotheses specifying that empathic concern mediates the relation between depression and OCBI.

Hypothesis 3 specifies that empathic concern mediates the anger-OCBI relation. Table 2 contains the results of the mediation analysis. Anger and empathic concern accounted for 13% of the variance in OCBI ($F(2,182) = 14.07$, $p < .001$). Data reveal that empathic concern explained unique variance in OCBI after statistical control of anger ($\beta = .34$, $t = 4.80$, $p < .001$). On the other hand, anger did not explain unique variance in OCBI after statistical control of empathic concern ($\beta = -.09$, $t = -1.30$, $p > .05$). These data suggest that empathic concern completely mediates the anger-OCBI relation and support Hypothesis 3.

<table>
<thead>
<tr>
<th>Step</th>
<th>Source</th>
<th>R</th>
<th>$R^2_a$</th>
<th>$\beta^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EC</td>
<td>.36***</td>
<td>.13***</td>
<td>.36***</td>
</tr>
<tr>
<td>2</td>
<td>EC</td>
<td>.37</td>
<td>.13</td>
<td>.34***</td>
</tr>
<tr>
<td></td>
<td>Anger</td>
<td></td>
<td>-0.09</td>
<td></td>
</tr>
</tbody>
</table>

Note: $n = 185$. OCBI = organizational citizenship behavior towards individuals; EC = empathic concern.

$^a$ Statistical significance is based on incremental change.

$^b$ Statistical significance is based on unique variance accounted for after statistical control of the other variable in the regression equation.

* $p < .05$. ** $p < .01$. *** $p < .001$

Hypothesis 4 predicts that empathic concern mediates the friendliness-OCBI relation. Table 3 reports the results of that analysis. Friendliness and empathic concern accounted for 23% of the variance in OCBI ($F(2,183) = 27.15$, $p < .001$). Data show that empathic concern explained unique variance in OCBI after statistical control of friendliness ($\beta = .28$, $t = 4.17$, $p < .001$). Moreover, friendliness explained unique variance in OCBI after statistical control of empathic concern ($\beta = .35$, $t = 5.27$, $p < .001$).
These data suggest that empathic concern partially mediates the friendliness-OCBI relation and support Hypothesis 4.

### Table 3. OCBI regressed on friendliness and empathic concern

<table>
<thead>
<tr>
<th>Step</th>
<th>Source</th>
<th>R</th>
<th>R²&lt;sup&gt;a&lt;/sup&gt;</th>
<th>β&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EC</td>
<td>.33***</td>
<td>.11***</td>
<td>.33***</td>
</tr>
<tr>
<td>2</td>
<td>EC</td>
<td>.48***</td>
<td>.23***</td>
<td>.28***</td>
</tr>
<tr>
<td></td>
<td>Friendliness</td>
<td></td>
<td></td>
<td>.35***</td>
</tr>
</tbody>
</table>

*Note:* n = 186. OCBI = organizational citizenship behavior towards individuals; EC = empathic concern.

<sup>a</sup> Statistical significance is based on incremental change.

<sup>b</sup> Statistical significance is based on unique variance accounted for after statistical control of the other variable in the regression equation.

* p < .05. ** p < .01. *** p < .001

Hypothesis 5 predicts that empathic concern mediates the emotionality-OCBI relation. Table 4 includes the results of that analysis. Emotionality and empathic concern accounted for 12% of the variance in OCBI (F(2,181) = 12.25, p < .001). Data reveal that empathic concern explained unique variance in OCBI after statistical control of emotionality (β = .30, t = 3.75, p < .001). On the other hand, emotionality did not explain unique variance in OCBI after statistical control of empathic concern (β = .08, t = .99, p > .05). These data suggest that empathic concern completely mediates the emotionality-OCBI relation and support Hypothesis 5.

### Table 4. OCBI regressed on emotionality and empathic concern

<table>
<thead>
<tr>
<th>Step</th>
<th>Source</th>
<th>R</th>
<th>R²&lt;sup&gt;a&lt;/sup&gt;</th>
<th>β&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EC</td>
<td>.34***</td>
<td>.11***</td>
<td>.34***</td>
</tr>
<tr>
<td>2</td>
<td>EC</td>
<td>.35</td>
<td>.12</td>
<td>.30***</td>
</tr>
<tr>
<td></td>
<td>Emotionality</td>
<td></td>
<td></td>
<td>.08</td>
</tr>
</tbody>
</table>

*Note:* n = 184. OCBI = organizational citizenship behavior towards individuals; EC = empathic concern.

<sup>a</sup> Statistical significance is based on incremental change.

<sup>b</sup> Statistical significance is based on unique variance accounted for after statistical control of the other variable in the regression equation.

* p < .05. ** p < .01. *** p < .001
Discussion

The purpose of this study was to examine the usefulness of using facets of broad Big 5 personality dimensions to predict OCB toward individuals. A second purpose was to investigate the usefulness of empathic concern as an explanation for the relationship between those facets of the Big 5 dimensions and OCBI. The data support most of the hypotheses. Employees higher in empathic concern emit more OCBI than people lower in empathic concern. Given that empathic concern refers to individuals’ sympathy and concern for others, it is reasonable to believe employees higher in empathic concern are more motivated to help co-workers than people lower in empathic concern. My finding is consistent with other research (McNeely & Meglino, 1994; Settoon & Mossholder, 2002).

I hypothesized that depression and anger were negatively related to OCBI and that empathic concern mediated the relations between those two variables and OCBI. The data did not support the hypothesis that empathic concern mediated the relation between depression and OCBI. Depression related neither to empathic concern nor to OCBI. Empathic concern completely mediated the relation between anger and OCBI. I also expected friendliness and emotionality to be positively related to OCBI and that empathic concern mediated the relation between those two variables and OCBI. Empathic concern partially mediated the relation between friendliness and OCBI and completely mediated the emotionality-OCBI relation.

Some of my findings are consistent with some of the previous research examining Big 5 relations with OCB. For example, Smith et al. (1983) found a negative relation between neuroticism and OCBI. In my study, anger, a facet of neuroticism exhibited a
negative relation with OCBI. Day and Carroll (2004) found a positive openness to experience-OCBI relation. I found that emotionality, one facet of openness to experience, is related to OCBI.

My research also supports research identifying the important role interpersonal relations have in OCB. Settoon and Mossholder (2002) found that empathic concern mediated the relation of trust and perspective taking with OCBI. Two individual difference variables I examined are also related to the quality of interpersonal relations. People higher in anger tend to have more hostile relations (McCrae & Costa, 2003) and experience more conflict with others (Strayer & Roberts, 2004a) than people lower in anger. People higher in friendliness have a tendency to be intimate with others (McCrae & Costa, 2003). Perhaps friendly, non-hostile people find it easier to develop trust and establish effective relations with coworkers than more distant and hostile people. Effective interpersonal relations facilitate interactions that enable amiable, non-hostile employees to understand their coworkers’ perspectives regarding job conditions or constraints. As employees formulate their own perceptions they experience emotional arousal often associated with empathy (Eisenberg et al., 1991) that, in turn, increases the likelihood of engaging in OCB (Spector and Fox, 2002).

My findings are consistent with the theoretical principles of Negative State Relieve (NSR) Model (Cialdini et al., 1973, 1987; Cialdini & Kenrick, 1976) and Empathy-Altruism hypothesis (Batson et al., 1981; Hoffman, 1984, 1987). Individuals’ interpersonal relationships and emotional responses towards others help explain why certain individuals exhibit empathic behaviors while others do not. Individual differences in empathic concern are related to OCB.
Data do not support my hypothesis specifying that empathetic concern mediated the relation between depression and OCBI. While depression in non-clinical population is associated with self-oriented perceptions (O’Connor, et al., 2002), and I used a scale attempting to assess how one feels about oneself, the items didn’t appear to measure why people felt the way they did. Therefore, we couldn’t determine whether the items tapped the underlying reason for the depression. For example, people may agree with the statement that they are ashamed of themselves. However, the scale wasn’t sensitive enough to determine whether that perception was due to feeling guilty for being better off than others or whether the perception was due to envy because others are better off than the respondents. A second reason for the failure to support the hypothesis may be related to the sample that I used in the study. My sample was a non-clinical sample. Thus, the participants may be less likely to see themselves as depressed compared to people selected from a clinical sample and a non-clinical sample. The resulting restriction of range may have attenuated the relation of depression with empathic concern and OCBI.

Some of my findings appear inconsistent with results of previous research. For example, Neuman and Kickul (1998) found a negative extraversion-OCBI relation. Smith et al. (1983) did not find relation between extraversion and OCBI. On the other hand, I found that friendliness was positively related to OCBI. Perhaps the difference in the conclusions is that I examined one facet of extraversion instead of the entire dimension. It may be that some specific facets of the Big 5 domains are related to OCB while others are not. Perhaps combining all related and unrelated facets into the broad extraversion dimension attenuates the effects that some aspects of extraversion have with OCB.
Contributions and Implications

My research extends the OCB literature. Although OCB researchers have examined relations with broad personality dimensions (e.g. Baruch, O’Creevy, Hind, & Vigoda-Gadot, 2004; Organ & Lingl, 1995), there is no study that I am aware of that has investigated specific facets of Big 5 personality dimensions and OCB. My study suggests that certain facets of the broad Big 5 dimensions are useful predictors of OCBI.

Another notable feature is the documentation of the mediating role empathic concern has in those personality facets-OCBI relations. While some research has investigated whether certain personality factors are related to OCB, I have identified one mechanism by which individual differences affect OCBI.

The present study is of practical importance. Assuming that OCB may improve the effectiveness and efficiency of an organization (Organ, 1988), the findings of this study inform managers that certain people are more likely to engage in OCB than others. Understanding the key role of empathic concern in OCB might lead to the development of training programs aimed at developing empathic concern and eventually improve employees’ likelihood to engage in OCB.

Limitations and Future directions

This study has boundary conditions that limit the generalizability of my findings. I did not randomly sample the population of employees. Use of non-random samples may affect the generalizability of my findings.

A second limitation is that the same person completed questionnaires on both the predictors and criterions. Thus, shared method variance may have inflated the magnitude
of the relations I found. Future research should collect data from multiple data sources such as co-workers and supervisors.

I cannot rule out the possibility that people tried to make themselves look good when completing the personality and OCB scales. This demand characteristic could have biased conclusions that I have drawn.

A fourth limitation is that I examined only those citizenship behaviors directed toward people. Thus, I cannot generalize my results to OCB directed toward the organization (OCBO). Future research should address whether these results generalize to OCBO.

Finally, the scale I used to measure depression did not assess the reason people feel depressed. Future research should employ a depression scale that not only taps how one feels about oneself but also the underlying reason(s) pertaining to those perceptions to better assess self-oriented depression.
Reference


Appendix 1 (OCBI Scale)

Directions: Please indicate your level of agreement with the following statements by circling a number on the scale:

For example: If you neither agree nor disagree the statement, you could circle 3.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I fulfill all the responsibilities specified in my job description.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>1. I generally help others who have been absent.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I take a personal interest in the well-being of other employees.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I generally help others who have heavy workloads.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I go out of the way to help new employees.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I generally take time to listen to coworkers’ problems and worries.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I pass along work-related information to coworkers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix 2 (Empathic Concern Scale)

Directions: Please indicate your level of agreement with the following statements by circling a number on the scale:

For example: If you feel the statement describe you neither well nor badly, you could circle 2.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Does not describe me well</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Describe me very well</th>
</tr>
</thead>
<tbody>
<tr>
<td>I often have tender, concern feelings for people less fortunate than me.</td>
<td>Does not describe me well</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Describe me very well</td>
</tr>
<tr>
<td>2. Sometimes I don’t feel very sorry for other people when they are having problems.</td>
<td>Does not describe me well</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Describe me very well</td>
</tr>
<tr>
<td>3. When I see someone being taken advantage of, I feel kind of protective towards them.</td>
<td>Does not describe me well</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Describe me very well</td>
</tr>
<tr>
<td>4. Other people’s misfortunes do not usually disturb me a great deal.</td>
<td>Does not describe me well</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Describe me very well</td>
</tr>
<tr>
<td>5. When I see someone being treated unfairly, I sometimes don’t feel very much pity for them.</td>
<td>Does not describe me well</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Describe me very well</td>
</tr>
<tr>
<td>6. I am often quite touched by things that I see happen.</td>
<td>Does not describe me well</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Describe me very well</td>
</tr>
<tr>
<td>7. I would describe myself as a pretty soft-hearted person.</td>
<td>Does not describe me well</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Describe me very well</td>
</tr>
</tbody>
</table>
Appendix 3 (Depression, Anger, Friendliness, and Emotionality Scale)

Directions: Please indicate your level of agreement with the following statements by circling a number on the scale:

For example: If you feel the statement describe you very accurately, you could circle 5.

<table>
<thead>
<tr>
<th></th>
<th>Very Inaccurate</th>
<th>Modestly Inaccurate</th>
<th>Neither Inaccurate nor Accurate</th>
<th>Modestly Accurate</th>
<th>Very Accurate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often feel blue.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>1. Often feel blue.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Dislike myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Am often down in the dumps.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Have a low opinion of myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Have frequent mood swings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Feel desperate.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Feel that my life lacks direction.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Seldom feel blue.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Feel comfortable with myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Am very pleased with myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Depression**

<table>
<thead>
<tr>
<th></th>
<th>Very Inaccurate</th>
<th>Modestly Inaccurate</th>
<th>Neither Inaccurate nor Accurate</th>
<th>Modestly Accurate</th>
<th>Very Accurate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Often feel blue.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Dislike myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Am often down in the dumps.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Have a low opinion of myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Have frequent mood swings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Feel desperate.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Feel that my life lacks direction.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Seldom feel blue.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Feel comfortable with myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Am very pleased with myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Anger**

<table>
<thead>
<tr>
<th></th>
<th>Very Inaccurate</th>
<th>Modestly Inaccurate</th>
<th>Neither Inaccurate nor Accurate</th>
<th>Modestly Accurate</th>
<th>Very Accurate</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Get angry easily.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. Get irritated easily.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. Get upset easily.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. Am often in a bad mood.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. Lose my temper.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. Rarely get irritated.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. Seldom get mad.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. Am not easily annoyed.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19. Keep my cool.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Very Inaccurate</td>
<td>Modestly Inaccurate</td>
<td>Neither Inaccurate nor Accurate</td>
<td>Modestly Accurate</td>
<td>Very Accurate</td>
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<tr>
<td>20. Rarely complain.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</tbody>
</table>

**Friendliness**

<table>
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<tr>
<th></th>
<th>Very Inaccurate</th>
<th>Modestly Inaccurate</th>
<th>Neither Inaccurate nor Accurate</th>
<th>Modestly Accurate</th>
<th>Very Accurate</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. Make friends easily.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>22. Warm up quickly to others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23. Feel comfortable around people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24. Act comfortably with others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25. Cheer people up.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26. Am hard to get to know.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>27. Often feel uncomfortable around others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>28. Avoid contacts with others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>29. Am not really interested in others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>30. Keep others at a distance.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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</table>

**Emotionality**

<table>
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<tr>
<th></th>
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<th>Neither Inaccurate nor Accurate</th>
<th>Modestly Accurate</th>
<th>Very Accurate</th>
</tr>
</thead>
<tbody>
<tr>
<td>31. Experience my emotions intensely.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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</tr>
<tr>
<td>32. Feel others’ emotions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>33. Am passionate about causes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>34. Enjoy examining myself and my life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>35. Try to understand myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>36. Seldom get emotional.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>37. Am not easily affected by my emotions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>38. Rarely notice my emotional reactions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>39. Experience very few emotional highs and lows.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>40. Don’t understand people who get emotional.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix 4 (Demographic Questions)

Please answer the following questions or circle around the most suitable answer.

1. Age: ________
2. Gender: Male Female
3. Years of work experience: ________ years
4. What kind of occupation do you work in? (Write the number in the space) ________
   1) Cleaning and Maintenance (e.g., janitors)
   2) Technical/Professional (e.g., accountants, computer programmers)
   3) Crafts/Construction (e.g., electricians, bricklayers, carpenters, mechanics)
   4) Education, Training, and Library (e.g., teachers)
   5) Food Preparation and Serving Related (e.g., cooks, servers)
   6) Management
   7) Office and Administrative Support Staff (e.g., receptionist, bookkeepers)
   8) Production; Shipping and Receiving (e.g., machine loaders, forklift drivers, delivery persons, tire changers)
   9) Sales
   10) Others (Please Specify ________ )
5. What kind of organization do you work in? (Write the number in the space) ________
   1) Educational Institution
   2) Government Agency
   3) Retail
   4) Manufacturing
   5) Health Care
   6) Banking
   7) Food Industry (e.g. restaurant)
   8) Social service agency
   9) Service company (counselling center, law firm)
   10) Others (please specify ________ )
   1) Employee 2) Manager 3) Executive/Company officer 4) First line supervisor
   5) Others (please specify ________ )