Beauty, Personality, and Affect as Antecedents of Counterproductive Work Behavior Receipt

Brent A. Scott  
Michigan State University

Timothy A. Judge  
University of Notre Dame

Over the years, much attention has been devoted to understanding counterproductive work behavior (CWB) and its related concepts. Less is known, however, about whether certain employees find themselves more than others to be the targets of CWB. To examine this issue, we tested a model that positioned CWB receipt as a function of employees’ personality (neuroticism, agreeableness), their appearance (physical attractiveness), and the negative emotions felt toward those employees by their coworkers. Two studies using multiple sources of data revealed that disagreeable and physically unattractive employees received more CWB from their coworkers, coworker negative emotion felt toward employees was associated with CWB receipt, and the relationship between employee agreeableness and CWB receipt was due, in part, to coworker negative emotion.

An accumulating body of literature has examined counterproductive work behavior (CWB), defined as “behavior intended to hurt the organization or other members of the organization” (Spector & Fox, 2002, p. 271). Researchers have investigated CWB under a variety of labels, including abuse (Keashly, Trott, & MacLean, 1994), aggression (Baron & Neuman, 1996), antisocial behavior (Giacalone & Greenberg, 1997), harassment (Bowling & Beehr, 2006), incivility (Andersson & Pearson, 1999), social undermining (Duffy, Ganster, & Pagon, 2002), and workplace deviance (Robinson & Bennett, 1995). Collectively, this research has drawn attention to CWB in organizations by identifying reasons why employees engage in such harmful actions, with antecedents encompassing both personal factors (e.g., agreeableness, conscientiousness, job satisfaction, and negative emotion) and situational factors (e.g., unfair treatment; for meta-analyses, see Berry, Ones, & Sackett, 2007; Dalal, 2005; Salgado, 2002).

In addition to revealing antecedents of CWB engagement, research has shown that employees on the receiving end of CWB suffer a number of adverse reactions, including negative emotions, job dissatisfaction, somatic complaints, emotional and physical withdrawal, and turnover intentions (e.g., Bowling & Beehr, 2006; Cortina, Magley, Williams, & Langhout, 2001; Duffy

Correspondence should be sent to Brent A. Scott, Michigan State University, 632 Bogue Street, N475, East Lansing, MI 48824. E-mail: scott@bus.msu.edu
et al., 2002; Keashly et al., 1994). Despite an increased understanding of antecedents of CWB engagement and effects of CWB on targets, much more remains to be learned about where (or to whom) these harmful behaviors are directed. This issue is especially pertinent to interpersonal forms of CWB, which are directed specifically toward other employees (Robinson & Bennett, 1995; Sackett & DeVore, 2001). It seems likely that individuals engaging in interpersonal forms of CWB do not simply choose their targets at random; instead, some employees are more likely to be targeted than others. The identification of such factors could broaden theory on CWB by incorporating the other side of the CWB equation (i.e., the target or victim) and inform practice by providing employees and managers with information on the types of individuals most susceptible to receiving CWB.

To date, some research has examined characteristics of CWB targets, focusing primarily on demographics and dispositional traits. Findings on demographics have been relatively inconsistent, as some studies on victimization and incivility have found that targets are more likely to be female (Cortina et al., 2001) and to have low hierarchical status (Aquino, 2000), whereas others have found no differences in either gender (Aquino, 2000; Aquino, Grover, Bradfield, & Allen, 1999; Bowling & Beehr, 2006) or status (Aquino & Bradfield, 2000; Aquino et al., 1999). The primary dispositional traits considered thus far have been positive and negative affectivity. In a meta-analysis by Bowling and Beehr (2006) on workplace harassment, the authors reported that trait negative affectivity, but not trait positive affectivity, was associated with being a victim (see also Bowling, Beehr, Bennett, & Watson, 2010), and they called for future research to examine other individual characteristics. In line with this call, Milam, Spitzmueller, and Penney (2009) found that disagreeable employees were more likely to be targets of incivility.

Considering the aforementioned, the purpose of the current study was to extend the literature on CWB receipt by testing a model of factors associated with being a target of CWB. The model was inspired by Spector and Fox’s (2002) emotion-centered model of voluntary work behavior. According to their model, engagement in CWB is driven by negative emotion, which is elicited by various environmental characteristics (e.g., job stressors, interpersonal conflict, and injustice). Along a similar line, we suggest that certain characteristics of employees induce negative emotion in their coworkers, leading to an increased likelihood of receiving CWB. Although Spector and Fox did not discuss the specific employee characteristics examined in the present investigation, they did acknowledge that individuals may be elicitors of negative emotion in others and that individuals who elicit negative emotion in others are more likely to be targeted for CWB. Specifically, Spector and Fox argued, “The target for behavior is predicated on the perceived agent of the situation that induced the emotion, particularly for CWB” (p. 276).

Using Spector and Fox’s (2002) theoretical framework as a guide, as well as the extant research, we identified employee characteristics likely to elicit negative emotion in their coworkers and to be associated with CWB receipt as a result. We focused on two traits from the five-factor model of personality (e.g., Goldberg, 1990): neuroticism and agreeableness. Neuroticism is the tendency to experience negative emotions such as anger, hostility, and anxiety, whereas agreeableness is the tendency to be altruistic, warm, and considerate (John & Srivastava, 1999). Neurotic individuals are easily upset, emotionally unstable, irritable, and prone to depression; agreeable individuals have a communal, prosocial orientation that motivates them to serve the needs of the groups to which they belong (Graziano & Eisenberg, 1997). Relative to the remaining
traits composing the Big Five (i.e., extraversion, conscientiousness, and openness to experience), research indicates that neuroticism and (dis)agreeableness are relatively unique in that they both possess a negative emotional component. Specifically, neurotic and disagreeable individuals show an increased proclivity toward hostility (Graziano & Eisenberg, 1997; Watson, 2000), which may explain in part why neuroticism and disagreeableness are valued negatively and viewed as undesirable in others (Dunn, Mount, Barrick, & Ones, 1995; Hampson, Goldberg, & John, 1987).

As we elaborate next, this negative, hostile component of neurotic and disagreeable employees should have implications for their interactions with others and, consequently, the negative feelings and actions such employees should incite in their coworkers. Our focus on neuroticism and (dis)agreeableness fits well with Bowling and Beehr’s (2006) meta-analytic research showing trait negative affectivity (which corresponds to neuroticism; Watson, 2000) to be positively associated with being a target of harmful behaviors, as well as with their speculation that disagreeable employees are more likely to be targeted for harmful behaviors because they irritate their coworkers.

In addition to personality, we examined physical attractiveness, positing that attractive employees would be less likely to elicit negative emotion in their coworkers and receive CWB than unattractive employees. Theories of social acceptance stipulate that characteristics valued by society include both communal qualities such as kindness and warmth (i.e., agreeableness) and superficial qualities such as beauty (Anthony, Holmes, & Wood, 2007). Indeed, research on bullying among school-age children has revealed that victims of bullying are more likely to perceive as physically unattractive by their peers (e.g., Sweeting & West, 2001; see also Olweus, 1978). Thus, by including personality (neuroticism and agreeableness) and appearance (physical attractiveness), our model acknowledges that in predicting the receipt of CWB, it likely is “what’s on the inside” and “what’s on the outside” that counts.

Before proceeding, although we focus on neuroticism and agreeableness as personality antecedents of coworker negative emotion and CWB receipt, one might reasonably ask about the possible relevance of the other three traits from the Big Five. Although we do not deny the possibility that conscientiousness, extraversion, and openness to experience could be associated with coworker negative emotion and CWB receipt, we believe these traits are less likely to produce main effects on the proposed outcomes for several reasons. First, whereas there is reason to suggest that employers value these traits—especially conscientiousness—in employees (Dunn et al., 1995), there is less reason to suggest that they are linked to CWB from coworkers, as well as to the proposed mediating mechanism (negative emotion). Conscientious individuals are not necessarily better liked by others (Lopes, Salovey, Cote, & Beers, 2005), especially if their rule-abiding and achievement-driven actions go against informal group norms (Coyne, Seigne, & Randall, 2000), and the affective implications of extraversion and openness largely depend on the presence of those traits in the other. Specifically, dominant, assertive individuals (i.e., extraverts) tend to be preferred by submissive, less assertive individuals (i.e., introverts; Dryer & Horowitz, 1997; Tiedens & Fragale, 2003) and openness appears to be valued primarily by individuals who are similarly open themselves (Botwin, Buss, & Shackelford, 1997). Overall then, in contrast to neuroticism and agreeableness, the relevancies of conscientiousness, extraversion, and openness to experience to CWB receipt are likely to be more context dependent, and thus we have excluded their consideration from the present investigation (though we raise the issue again in the Discussion section).
Employee Characteristics and Coworker Negative Emotion

Neuroticism and Agreeableness

As previously noted, neuroticism and disagreeableness are traits that are valued negatively and viewed as undesirable in others (Dunn et al., 1995; Hampson et al., 1987), and thus both traits should be associated with the ways in which coworkers react emotionally during interactions. The tendency for neurotic individuals to perceive interactions with others as threatening, to respond to perceived threats with hostility, and to provoke others (e.g., Aquino et al., 1999), the tendency for disagreeable individuals to behave antagonistically toward others, to be argumentative, and to be generally unkind (e.g., Graziano & Eisenberg, 1997), and the tendency for both types of individuals to encounter more frequent interpersonal conflicts (Bono, Boles, Judge, & Lauver, 2002), makes it likely that coworkers tend to feel more negative emotion toward neurotic and disagreeable employees than toward emotionally stable and agreeable employees. Thus, we predicted:

H1: Neuroticism of a focal employee is positively associated with negative emotion felt by coworkers toward that employee.

H2: Agreeableness of a focal employee is negatively associated with negative emotion felt by coworkers toward that employee.

Physical Attractiveness

Although a popular expression in society is that it is “what’s inside that counts,” a wealth of research has indicated that beauty is a socially valued characteristic, serving as a status cue (Webster & Driskell, 1983). Physically attractive people are judged by others as friendlier, more likeable, and more socially appealing than physically unattractive people (for a meta-analysis, see Langlois et al., 2000). Physically attractive individuals are also treated better, receiving more social attention, more prosocial behavior, and less unfriendly behavior from others than unattractive individuals, and thus, “contrary to the popular belief, attractiveness effects extend beyond mere ‘opinions’ of others and permeate actual actions toward others” (Langlois et al., 2000, p. 401). Such benefits are found equally for both males and females and span across cultures (Langlois et al., 2000). The benefits of attractiveness extend to the work domain, as attractive employees tend to receive more favorable performance evaluations and hiring and promotion decisions (for a meta-analysis, see Hosoda, Stone-Romero, & Coats, 2003). It is important to note that there is evidence that the maxim *beauty is in the eye of the beholder* is incorrect, and “contrary to conventional wisdom, there is strong agreement both within and across cultures about who is and who is not attractive” (Langlois et al., 2000, p. 404). In all, the cumulative evidence shows not only that people can be reliability differentiated in terms of physical attractiveness but also that being physically attractive is beneficial.

According to social psychological theories, stereotypes held toward attractive individuals are responsible for the benefits of beauty (Eagly, Ashmore, Makhijani, & Longo, 1991). These
stereotypes serve as implicit personality theories (Schneider, 1973), influencing perceptions and treatment in positive directions. Thus, people believe “what is beautiful is good” (Dion, Berscheid, & Walster, 1972, p. 285). The attractiveness stereotype may be explained in part by emotion. Specifically, attractive people may be aesthetically pleasant to others, eliciting positive emotion, while unattractive people may be aesthetically unpleasant to others, eliciting negative emotion. These feelings, in turn, may lead others to infer that attractive people have favorable qualities and that unattractive people have unfavorable qualities (Eagly et al., 1991). Research has supported the link between attractiveness and emotion, as photos of unattractive faces have been used to manipulate negative emotion (Larsen, Diener, & Cropanzano, 1987). In addition, Krendl, Macrae, Kelley, Fugelsang, and Heatherton (2006) found that unattractive individuals elicited more of the negative emotion disgust in raters relative to other “stigmatized” conditions (e.g., obesity). These reactions were reflected in heightened brain activation (i.e., the left anterior insula), suggesting that such evaluations are relatively automatic. Thus, we predicted:

H3: Physical attractiveness of a focal employee is negatively associated with negative emotion felt by coworkers toward that employee.

Coworker Negative Emotion and Counterproductive Workplace Behavior Receipt

According to Spector and Fox’s (2002) emotion-centered model of voluntary work behavior, negative emotion is associated with engagement in CWB. Emotions are affective responses to events containing experiential (felt) components, physiological changes, and bodily expressions (Frijda, 2007). Most relevant to CWB, emotions also contain action tendencies that motivate and guide behavior (Frijda, 2007), and these action tendencies should have implications for the direction of CWB by coworkers toward employees. Negative emotions (e.g., anger, hostility, disgust) motivate individuals to repel the source of the emotion (e.g., Lazarus, 1991). This is accomplished through a variety of antisocial behaviors that may be construed as CWB, including aggression, antagonism, impoliteness, and overt rejection (Hess, 2000; Tedeschi & Felson, 1994). Given that negative emotions prime aggressive thoughts and scripts while also reducing behavioral inhibitions (Berkowitz, 2003; Tedeschi & Felson, 1994), such harmful actions are likely to be expressed rather than suppressed.

Research has supported the link between negative emotion and CWB. For example, Fox, Spector, and Miles (2001) found significant correlations between negative emotion (a composite scale of states such as anger, frustration, disgust, and annoyance) and CWB directed toward both the organization and individuals. However, the authors did not identify toward whom the interpersonal CWB was directed, and they called for researchers to examine targets of CWB. According to Spector and Fox (2002), individuals experiencing negative emotion are likely to direct CWB toward the perceived source of the emotion. Previously, we argued that neurotic, disagreeable, and physically unattractive employees are more likely to elicit negative emotions in their coworkers. It thus follows that coworkers should direct CWB specifically toward employees possessing such characteristics because those employees are perceived as the source or elictor of the negative emotion. Thus, in accordance with Spector and Fox’s propositions that negative emotion is associated with CWB, and that negative emotion mediates the relationship between
elicitors of emotion and CWB, we propose that coworker negative emotion is positively associated with CWB receipt and that coworker negative emotion mediates the relationship between employee characteristics and CWB receipt.

H4: Coworker negative emotion felt toward a focal employee is positively associated with CWB receipt by that employee.

H5: Coworker negative emotion felt toward a focal employee mediates the relationships of the focal employee’s neuroticism (H5a), agreeableness (H5b), physical attractiveness (H5c), with CWB receipt by that employee.

OVERVIEW OF STUDIES

We tested our hypotheses using data from two separate studies. In Study 1, data were collected from two independent sources: students who worked part-time and their coworkers. In Study 2, data were collected from four independent sources: full-time healthcare employees, their significant others, their coworkers, and independent raters of the focal employees’ physical attractiveness. H1, H2, H4, H5a, and H5b were tested in Study 1, and all hypotheses (1–5) were tested in Study 2 (Study 2 added physical attractiveness). As described next, the methods and measures used in each study were similar, facilitating comparisons of results.

Study 1: Method

Sample and Procedure

The sample for Study 1 consisted of 130 undergraduate students attending a university in the southeastern United States and working at least 20 hr per week during the time of the study. Participants worked in a variety of occupations, including service, sales, and administration. The sample comprised 72 women and 58 men, the average age was 22.7 years ($SD = 5.5$), and the average tenure was 1.8 years ($SD = 1.9$).

The study was described to participants as an investigation of coworker interactions in the workplace. All data were collected online using web-based surveys, with measures within each survey counterbalanced to avoid potential order confounds. After reading an informed consent ensuring confidentiality, participants were first instructed to provide at least two coworkers working under the same supervisor as the focal participant with a link to an online survey that contained the measure of negative emotions felt toward the focal participant. Participants were then asked to complete the measures of neuroticism, agreeableness, received CWB, and demographics. In exchange for participating, participants received course credit.

Internet protocol addresses as well as time stamps collected in tandem with each survey were compared to provide evidence that the surveys were not completed by the participants themselves. These comparisons suggested that one participant completed all of the coworker surveys himself, and thus we excluded this participant entirely from the sample. All remaining surveys were completed on different computers and at different times, suggesting that participants adhered to instructions. In all, we obtained complete data from 126 focal participants, with a total of 389 coworker surveys ($M = 3.1$ coworker surveys per participant).
**Measures**

**CWB receipt.** We adapted the seven-item Bennett and Robinson (2000) scale of interpersonal deviant behavior, a widely employed scale that has been used to assess CWB (e.g., Fox et al., 2001), to reflect receiving rather than engaging in the behaviors listed. Participants were asked to indicate how often their coworkers engage in each of the behaviors toward them using a 5-point scale from 1 (almost never) to 5 (very often). Sample items included, “Say hurtful things to me,” “Act rudely toward me,” and “Make fun of me.” To ensure a consistent frame of reference between participants and coworkers, participants were asked to consider CWB received only from coworkers working under the same supervisor as the focal participant. Coefficient alpha was .86.

**Negative emotion felt by coworkers toward the focal employee.** We measured negative emotion using six items from Izard’s (1977) Differential Emotions Scale. Coworkers were asked to indicate the extent to which they experience each state during interactions with the focal participant using a 5-point scale from 1 (to a very small extent) to 5 (to a very large extent). Sample items included “angry,” “mad,” and “disgusted.” Coefficient alpha was .95.

**Neuroticism and agreeableness.** Participants responded to the eight-item Neuroticism measure and the nine-item Agreeableness measure from the Big Five Inventory (BFI; John, Donahue, & Kentle, 1991) using a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). Sample items for neuroticism included “I can be moody,” “I can be tense,” and “I am emotionally stable, not easily upset (reverse coded).” Coefficient alpha for this scale was .80. Sample items for agreeableness included “I like to cooperate with others,” “I have a forgiving nature,” and “I can be cold and aloof (reverse coded).” Coefficient alpha was .80.

**Control Variables**

According to status characteristics theory (e.g., Bunderson, 2003), certain demographic variables are perceived to be indicators of status. Given that some research has shown that individuals of lower status are more likely to be victimized (Aquino, 2000; Cortina et al., 2001), we controlled for age, gender, and tenure because these variables have been shown to reflect status in the workplace (Bunderson, 2003). Job status was controlled by design, as the focal participants and coworkers were at the same level in the organizational hierarchy. We also controlled for the number of coworker surveys completed to account for the possibility that focal participants perceived negatively by their coworkers would obtain fewer coworker surveys than focal participants perceived positively.

**Interrater Agreement**

Given that multiple raters completed the measures of negative emotion, we computed the intraclass correlation (James, 1982) and $r_{wg}$ (James, Demaree, & Wolf, 1993) to assess interrater reliability. For the negative emotion ratings, ICC(1) = .39, $F(128) = 2.80, p < .001$, and $r_{wg(j)} = .90$. This ICC(1) value compares favorably to values found in the organizational literature (James, 1982), and the $r_{wg}$ value is above the .70 standard. These results suggested that
combining the coworker ratings was appropriate, and thus we aggregated the negative emotion scores for each participant across raters.

Study 1: Results

**Descriptive Statistics and Correlations**

Means, standard deviations, and correlations among the variables are shown in Table 1. Receipt of CWB was significantly correlated with both agreeableness of the focal employee \( r = -0.24, p < .05 \) and coworker negative emotion felt toward the focal employee \( r = 0.47, p < .05 \). In terms of demographics and CWB receipt, older employees \( r = -0.25, p < .05 \) and female employees \( r = -0.21, p < .05 \) were less likely to be the targets of CWB.

**Tests of Hypotheses**

To test our hypotheses, we used structural equation modeling, with the covariance matrix of observed variables used as input into LISREL 8.80 (Jöreskog & Sörbom, 1996). Results are shown in Figure 1. Fit statistics indicated acceptable model fit and were as follows: \( \chi^2_4(N = 126) = 12.54, p < .05 \), incremental fit index = .93, and standardized root mean square residual = .06.

**Main effects.** H1 predicted that neuroticism of a focal employee is positively associated with negative emotion felt by coworkers toward that employee. As shown in Figure 1, results failed to support that hypothesis, as the association between neuroticism and coworker negative emotion was not significant \( \gamma = -0.02 \). H2 predicted that agreeableness of a focal employee is negatively associated with negative emotion felt by coworkers toward that employee. Supporting this hypothesis, the path coefficient from agreeableness to coworker negative emotion was significant \( \gamma = -0.21, p < .05 \). H4 predicted that coworker negative emotion felt toward a focal employee is positively associated with CWB receipt by that employee. This hypothesis was also supported.

**Table 1**

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CWB receipt (by focal employee)</td>
<td>1.55</td>
<td>0.65</td>
<td>.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Negative emotion (felt by coworkers toward focal employee)</td>
<td>1.38</td>
<td>0.57</td>
<td>.47*</td>
<td>.95</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Neuroticism (of focal employee)</td>
<td>2.57</td>
<td>0.64</td>
<td>.03</td>
<td>.06</td>
<td>.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Agreeableness (of focal employee)</td>
<td>3.88</td>
<td>0.55</td>
<td>-.24*</td>
<td>-.20*</td>
<td>-.37*</td>
<td>.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Age (of focal employee)</td>
<td>22.67</td>
<td>5.51</td>
<td>-.25*</td>
<td>-.14</td>
<td>.01</td>
<td>.15</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>6. Gender (0 = male, 1 = female) (of focal employee)</td>
<td>0.56</td>
<td>0.50</td>
<td>-.21*</td>
<td>-.24*</td>
<td>.14</td>
<td>.04</td>
<td>-.01</td>
<td>—</td>
</tr>
<tr>
<td>7. Tenure in years (of focal employee)</td>
<td>1.81</td>
<td>1.85</td>
<td>-.12</td>
<td>-.16</td>
<td>.04</td>
<td>.04</td>
<td>.30*</td>
<td>.03</td>
</tr>
</tbody>
</table>

*Note. Coefficient alphas shown along the diagonal in italics. \( n = 126 \). CWB = counterproductive work behavior. *\( p < .05 \).
FIGURE 1 Structural equation modeling results for Study 1.

as indicated by the significant path coefficient from coworker negative emotion to CWB receipt ($\gamma = .40$, $p < .05$).

**Mediating effects.** H5 predicted that coworker negative emotion felt toward a focal employee mediates the relationships between the focal employee’s neuroticism (H5a), the focal employee’s agreeableness (H5b), and CWB receipt by that employee. To test this hypothesis, we examined the significance of the indirect effects (where direct effects are also estimated) of neuroticism and agreeableness on CWB receipt, which is equivalent to a Sobel (1982) test. As shown in Figure 1, the results of LISREL’s effect decomposition revealed that the total effect (TE) of neuroticism on CWB receipt was not significant (TE = −.04), leaving no effect to be mediated. In contrast, the total effect of agreeableness on CWB receipt was negative and significant (TE = −.23, $p < .05$), and the indirect effect (IE) was negative and significant (IE = −.08, $p < .05$). Thus, results supported H5b but not H5a.

**Supplemental Analyses**

Following the suggestion of an anonymous reviewer, we explored whether neuroticism and agreeableness interact to influence CWB receipt by first centering the two predictors around their respective mean and then entering their subsequent product term as a predictor of CWB receipt in the structural equation model. Results of this analysis revealed no significant interaction between neuroticism and agreeableness in the prediction of CWB receipt ($\gamma = .14$).

**Study 1: Discussion**

Results of Study 1 revealed that disagreeable employees were more likely to receive CWB than agreeable employees and that coworker feelings of negative emotion toward those employees were, in part, responsible for this relationship. Of interest, these feelings of negative emotion exhibited rather strong levels of interrater agreement, suggesting that certain types of employees tend to elicit similarly valenced feelings in their coworkers. Overall, the findings of Study 1 were supportive of Spector and Fox’s (2002) emotion-centered model of voluntary work behavior.
In Study 2, we sought to replicate these findings in a sample of full-time employees and to test the entire model (including physical attractiveness). We considered multiple perspectives in the assessment of our focal constructs, including significant other ratings of the focal employee’s personality and independent ratings of the focal employee’s physical attractiveness. Thus, none of the links were tested with data derived from a common source.

Study 2: Method

Sample and Procedure

The sample for Study 2 consisted of 149 full-time healthcare employees of a large hospital located in the southeastern United States. The sample comprised 100 women and 49 men, the average age was 37.7 years ($SD = 10.3$), and the average tenure was 4.2 years ($SD = 3.7$). Participants performed much of their work in formally defined teams and thus interacted frequently with one another, providing a constructive setting in which to examine CWB receipt.

Participants in Study 2 were recruited through organizational contacts not of higher rank to ensure that participants would not feel unfairly pressured to participate. The study was described to participants as an investigation of coworker interactions in the workplace. Those wanting to participate were e-mailed instructions by the first author.

Again, all data were collected using online surveys, with measures within each survey counterbalanced. After reading an informed consent ensuring confidentiality, participants were first asked to have a significant other, defined to participants as a “spouse, partner, close friend, or close relative” complete a survey assessing the focal participant’s neuroticism and agreeableness. Research has demonstrated the validity of observer ratings of personality, particularly between close acquaintances (Funder, Kolar, & Blackman, 1995).

Next, participants were asked to have each coworker in their work group complete the measure of negative emotion felt toward the focal participant. Groups were defined formally within the organization, and participants were instructed to obtain coworker ratings from members of their formal groups only. Participants then completed measures of CWB receipt and demographics, as well as neuroticism and agreeableness as a convergent validity check against the significant other reports of these personality traits. Once all surveys were completed, the first author met participants at their place of employment to obtain a digital photograph for the measurement of physical attractiveness. Photographs were face only and were taken against a standard background (i.e., a white wall).

We used photographs of the face (as opposed to the whole body) for two primary reasons. First, research has shown that although ratings of both bodily and facial attractiveness make independent contributions to ratings of overall attractiveness, facial attractiveness ratings make a stronger contribution (e.g., Confer, Perilloux, & Buss, 2010; Currie & Little, 2009; Peters, Rhodes, & Simmons, 2007). Second, ratings of bodily attractiveness may be strongly influenced by clothing (laboratory investigations typically include photos of individuals in bathing suits or underwear to avoid this potential confound; e.g., Currie & Little, 2009), and the removal of clothing was obviously not feasible in our field setting. Participants were compensated $40 for participating. Data from four independent sources ensured that all tests of hypotheses were free of the potential effects of common-source bias.
Comparison of internet protocol addresses as well as time stamps collected with each survey revealed that the surveys were completed on different computers and at different times, providing evidence that participants did not complete the surveys themselves. However, these comparisons suggested that one participant completed a single coworker survey himself, and thus we excluded this coworker survey from the analyses. In total, we obtained 855 coworker surveys from the 149 focal participants \((M = 5.7\) surveys per participant). Of these participants, 114 consented to having their photograph taken. We examined whether significant differences existed in the mean levels of the variables central to our hypotheses (i.e., CWB receipt, neuroticism, agreeableness, and coworker negative emotion) between those who provided a photograph and those who declined. Independent-samples \(t\) tests for each variable revealed no significant differences. Also, the full range of physical attractiveness ratings was utilized by the raters, reducing concerns about range restriction.

**Measures**

**CWB receipt.** As in Study 1, we adapted the seven-item Bennett and Robinson (2000) scale of interpersonal deviance to reflect receiving rather than engaging in the behaviors listed. Participants were asked to consider CWB received only from coworkers within their formally defined groups to ensure a consistent frame of reference. Coefficient alpha was .84.

**Negative emotion felt by coworkers toward the focal employee.** Coworker negative emotion was again measured using Izard’s (1977) Differential Emotions Scale. Coefficient alpha was .93.

**Neuroticism and agreeableness.** Significant others of the focal participants responded to the same scales used to assess neuroticism and agreeableness in Study 1 (John et al.’s, 1991, BFI), with the items adapted to reflect the significant other’s perspective. Sample items included “S/he can be moody” for neuroticism and “S/he likes to cooperate with others” for agreeableness. Coefficient alpha was .82 for neuroticism and .86 for agreeableness.

**Physical attractiveness.** The digital photograph of each participant was rated by four independent observers (four graduate students [two male and two female] who were unfamiliar with the purpose of the study; see Franzoi, Davis, & Vasquez-Suson, 1994), which is a common method to assess physical attractiveness (Langlois et al., 2000). Using independent raters is preferred because ratings made by individuals who personally know the target (e.g., coworkers in the present study) may be contaminated by attitudes already formed on the basis of other attributes such as personality. The digital photographs were randomly ordered for each rater, and each rater viewed the photos one by one. Raters responded to the following item: “How physically attractive is this individual?” using a 5-point scale from 1 (very unattractive) to 5 (very attractive).

**Control variables.** The same control variables (age, gender, tenure, and number of coworker surveys) were included in Study 2 as in Study 1. Job status was controlled by design, as the focal participants and coworkers were at the same level in the organizational hierarchy.
Interrater Agreement

As in Study 1, we computed the intraclass correlation and \( r_{wg} \) to assess interrater reliability of the coworker ratings of negative emotion felt toward the focal participant and the independent observer ratings of the focal employee’s physical attractiveness. For the negative emotion ratings, ICC(1) = .12, \( F(148) = 1.77, p < .001 \), and \( r_{wg(j)} = .91 \). For the physical attractiveness ratings, ICC(1) = .36, \( F(113) = 3.28, p < .001 \), and \( r_{wg} = .73 \). The agreement indices for physical attractiveness fit well with findings that beauty is not merely in the eye of the beholder (Langlois et al., 2000). Based on these results, we aggregated the negative emotion and physical attractiveness scores across raters.

Study 2: Results

Descriptive Statistics and Correlations

Means, standard deviations, and correlations among the variables are shown in Table 2. Paralleling the results in Study 1, agreeableness of the focal employee (\( r = -.38, p < .05 \)) and coworker negative emotion felt toward the focal employee (\( r = .36, p < .05 \)) were significantly correlated with CWB receipt. Older employees (\( r = -.22, p < .05 \)) and female employees (\( r = -.34, p < .05 \)) were again less likely to receive CWB. Although the correlation between physical attractiveness and CWB receipt was negative, it was not significant (\( r = -.07 \)), which is a point to which we return next. Also of note is the correlation between agreeableness and neuroticism (\( r = -.63, p < .05 \)), which was larger than the correlation between these variables in Study 1.

As previously noted, as a validity check, we also collected self-reports of neuroticism (\( \alpha = .90 \)) and agreeableness (\( \alpha = .88 \)) using the BFI (John et al., 1991). The level of self-other agreement was \( r = .46 \) for neuroticism (\( p < .05 \)) and \( r = .35 \) (\( p < .05 \)) for agreeableness, which is similar to the level of self–other agreement reported in previous research, especially between close acquaintances (e.g., Funder & Colvin, 1997; Funder et al., 1995; Paunonen, 1989). Results using the self-reports in place of the significant-other reports were virtually identical, with the same pattern of significance. To preserve independence in the data sources, hypotheses were tested using the significant-other reports.

Tests of Hypotheses

As in Study 1, we tested our hypotheses using structural equation modeling, with the covariance matrix of observed variables used as input into LISREL 8.80 (Jöreskog & Sörbom, 1996). Results are shown in Figure 2. Fit statistics indicated acceptable model fit and were as follows: \( \chi^2_{4}(N = 113) = 14.45, p < .05 \), incremental fit index = .93, and standardized root mean square residual = .05.

Main effects. As shown in Figure 2, results were quite similar to those found in Study 1. Neuroticism of the focal employee was not significantly associated with coworker negative emotion felt toward that employee (\( \gamma = -.19 \)), failing to support H1. In contrast, H2 was supported, as the path coefficient from agreeableness to coworker negative emotion was significant.
<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CWB receipt (by focal employee)</td>
<td>1.32</td>
<td>0.47</td>
<td>.47</td>
<td>.84</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Negative emotion (felt by coworkers toward focal employee)</td>
<td>1.25</td>
<td>0.31</td>
<td>.36(^*)</td>
<td>.93</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Neuroticism (of focal employee)</td>
<td>2.38</td>
<td>0.73</td>
<td>.12</td>
<td>.01</td>
<td>.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Agreeableness (of focal employee)</td>
<td>4.23</td>
<td>0.64</td>
<td>-.38(^*)</td>
<td>-.18</td>
<td>-.63(^*)</td>
<td>.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Physical attractiveness (of focal employee)</td>
<td>2.70</td>
<td>0.67</td>
<td>-.07</td>
<td>-.05</td>
<td>-.04</td>
<td>.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Age (of focal employee)</td>
<td>37.94</td>
<td>10.27</td>
<td>-.22(^*)</td>
<td>-.02</td>
<td>-.01</td>
<td>.03</td>
<td>-.48(^*)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Gender (0 = male, 1 = female) (of focal employee)</td>
<td>0.64</td>
<td>0.48</td>
<td>-.34(^*)</td>
<td>-.32(^*)</td>
<td>.05</td>
<td>.13</td>
<td>-.17</td>
<td>.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Tenure in years (of focal employee)</td>
<td>4.23</td>
<td>3.65</td>
<td>-.06</td>
<td>.11</td>
<td>-.07</td>
<td>.09</td>
<td>-.17</td>
<td>.36(^*)</td>
<td>.02</td>
<td></td>
</tr>
</tbody>
</table>

*Note. Coefficient alphas shown along the diagonal in italics. n = 113. CWB = counterproductive work behavior. \(^*p < .05\).
H3, which predicted that physical attractiveness of a focal employee is negatively associated with negative emotion felt by coworkers toward that employee, was not supported, as the path coefficient between these variables was not significant ($\gamma = -0.05$). Finally, results supported H4, as the path coefficient from coworker negative emotion to CWB receipt was significant ($\gamma = 0.21, p < 0.05$).

**Mediating effects.** We tested our mediation hypotheses (H5a, H5b, and H5c) using the same procedure as in Study 1. As shown in Figure 2, the TE of neuroticism on CWB receipt was not significant (TE = -0.15), leaving no effect to be mediated. The total effect of agreeableness on CWB was negative and significant (TE = -0.44, $p < 0.05$), but the IE only approached significance (IE = -0.06, $p < 0.10$). The TE of physical attractiveness on CWB receipt was negative and significant (TE = -0.25, $p < 0.05$), but the IE was not significant (IE = -0.01). Overall, results failed to support H5.

As previously noted, the correlation between physical attractiveness and CWB receipt was not statistically significant. However, the path coefficient between these variables was significant, indicating the occurrence of suppression. Inspection of the correlations in Table 2 suggests that this suppression may be due to age. Older individuals were less likely to be targets of CWB ($r = -0.22, p < 0.05$), yet they were more likely to be rated as unattractive ($r = -0.48, p < 0.05$). As a result, the path coefficients for both physical attractiveness and age with CWB receipt were stronger than their respective correlations, a situation of reciprocal suppression (see Tzelgov & Henik, 1991). Attractiveness diminishes with age (e.g., Deutsch, Zalenski, & Clark, 1986) but to the extent that age is a status characteristic (Bunderson, 2003), one would expect older individuals to be targeted for CWB less than younger individuals. However, given two individuals of similar age, one would expect the more unattractive individual to be targeted for CWB. Thus, although research suggests that age should be taken into account when examining physical attractiveness, our results should be interpreted with the aforementioned in mind.
Supplemental Analyses

As in Study 1, following the suggestion of an anonymous reviewer, we explored potential two-way interactions among the employee characteristics (neuroticism, agreeableness, and physical attractiveness) in the prediction of CWB receipt. Specifically, we examined whether neuroticism and agreeableness interact to influence CWB receipt, as well as whether physical attractiveness interacts with either neuroticism or agreeableness to influence CWB receipt. As before, predictors were centered around their respective mean, and then the subsequent product terms were entered as predictors of CWB receipt in the structural equation model. Similar to the results of Study 1, the interaction between neuroticism and agreeableness was not significant ($\gamma = -.17$). However, there were significant interactions between physical attractiveness and both neuroticism ($\gamma = .20$, $p < .05$) and agreeableness ($\gamma = .24$, $p < .05$). Plots of these interactions revealed that the relationship between neuroticism and CWB receipt was stronger (more negative) for employees low in physical attractiveness and that the relationship between agreeableness and CWB receipt was also stronger (more negative) for individuals low in physical attractiveness.

Study 2: Discussion

In Study 2, we tested our fully hypothesized model in a sample of full-time employees using four independent sources of data. Results of Study 2 were similar to those found in Study 1, in that coworkers were more likely to feel negative emotion toward disagreeable employees, and those employees were more likely to be the targets of CWB. Of interest, results also showed that physically unattractive employees were more likely to receive CWB from their coworkers, at least when age is taken into account. In other words, results of Study 2 show that for two employees of the same age, the physically attractive employee is likely to receive more favorable treatment from his or her coworkers. Given the nonsignificant results for mediation, this relationship appears to not be the result of coworker negative emotion felt differentially toward attractive and unattractive employees. Finally, in a post hoc analysis, it was revealed that physical attractiveness moderated the relationships between neuroticism, agreeableness, and CWB receipt. Although the interaction involving agreeableness was in line with what one might expect (i.e., disagreeable and unattractive employees were especially likely to receive CWB), the interaction involving neuroticism was not (i.e., emotionally stable and unattractive employees were especially likely to receive CWB). Future research could attempt to replicate these interactions as well as try to gain a better understanding of why and when high versus low physical attractiveness buffers or exacerbates the effects of personality on CWB receipt.

GENERAL DISCUSSION

In their review of the workplace harassment literature, Bowling and Beehr (2006) listed three categories of causes for harmful workplace behaviors: characteristics of the work environment, the perpetrator, and the victim. Using Spector and Fox's (2002) emotion-centered model of voluntary work behavior as a theoretical framework and data from two independent samples, we extended the literature on CWB by testing a model that positioned CWB receipt as a function of
employees’ characteristics (personality in the form of neuroticism and agreeableness; appearance in the form of physical attractiveness) and their coworkers’ feelings toward them.

Our findings revealed that when it comes to being a target of CWB, both personality and appearance matter. Specifically, in both Study 1 and Study 2, disagreeable employees were more likely to receive CWB, and in Study 2, when age was taken into account, physically unattractive employees were more likely to receive CWB. The lack of a significant zero-order correlation between physical attractiveness and CWB receipt is similar to the findings of Bowling et al. (2004), who reported a nonsignificant correlation between physical attractiveness and receiving social support. It thus may be that age needs to be taken into account in order to gain a more accurate estimate of relationships involving physical attractiveness.

Results from both studies also revealed that coworkers felt more negative emotion toward disagreeable than agreeable employees, and these negative emotions were associated with the receipt of CWB. These results fit well with Spector and Fox’s (2002) emotion-centered model of voluntary work behavior as well as with Bowling and Beehr’s (2006) speculation that agreeable employees are less likely to be targeted for harmful behaviors because their coworkers find them more pleasant to be around. That trait negative affect is associated with receiving harmful behaviors (Bowling & Beehr, 2006), but neuroticism is not (at least in the studies reported here), may suggest that it is the angry/hostility facet of neuroticism that is most important for the receipt of CWB—a possibility that future research could address. It could also be that neuroticism is associated only with the receipt of indirect forms of CWB (e.g., gossip), rather than the more direct forms of CWB (e.g., insults) measured here (Aquino & Bradfield, 2000). Finally, it may be the case that samples including individuals with very high levels of neuroticism would reveal a stronger relationship between this trait and CWB—a possibility suggested by Barrick and Mount (1991) in their meta-analysis of the Big Five and job performance.

We should also note that, similar to previous research, demographic characteristics generally had little bearing on CWB receipt. In the structural equation modeling results, tenure was not related to CWB receipt in either Study 1 or Study 2, and although gender was related to CWB in Study 2, the relationship was such that men were more likely to receive CWB than women, which differs from previous research (e.g., Cortina et al., 2001) and only reinforces our initial assertion that findings on demographics have been inconsistent. The sole exception was age, as younger employees were more likely to receive CWB in both studies. Future research is needed to further examine the relationship between age and CWB receipt as well as to illuminate the conditions under which demographics are more versus less important for CWB receipt.

Bowling and Beehr (2006) stated that most target-based research on harmful behaviors has taken a “black box” approach, “ignoring potential reasons for the relationships examined” (p. 1007). Using the Spector and Fox (2002) model as a theoretical foundation, we had reasoned that coworker negative emotions felt toward a focal employee would compose a substantive part of that black box given that their model positions negative emotion as a proximal cause of CWB. Our results, however, provided only a glimpse into that black box. Although we found some support for coworker negative emotion as a mediator of the relationship between employee agreeableness and CWB receipt, coworker negative emotion did not mediate the relationship between physical attractiveness and CWB receipt—a point to which we return next. Thus, although our study did successfully link employee agreeableness and physical attractiveness to coworker’s tendencies to direct CWB toward them, it was less successful in explaining
why this happens. Coworker negative emotion is part of the reason, but apparently not a highly significant one.

Limitations, Strengths, and Future Research

One limitation of this study is that, although theory (e.g., Spector & Fox, 2002) and existing research (e.g., Milam et al., 2009) support individual differences (i.e., neuroticism, agreeableness, and physical attractiveness) as temporally preceding coworker negative emotion and CWB receipt, our data were nonexperimental and cross-sectional in nature, thus precluding a strong test of mediation. Future research using a longitudinal design could better determine the precise causal nature of the relationships examined here.

Another limitation of the study is its scope. Whereas this is the first study (of which we are aware) to examine emotions as a mediator of employee characteristics and CWB receipt, clearly there are other characteristics, other mediators besides emotion, and other aspects of interpersonal treatment (such as the receipt of helping or citizenship behaviors) that should be studied. As we noted at the outset, although we chose to focus on neuroticism and (dis)agreeableness because theory and research suggests that these characteristics should elicit negative reactions in their coworkers, it is possible that the remaining Big Five (conscientiousness, extraversion, and openness to experience) may be associated with CWB receipt depending on the particular context in which the employee is embedded. In addition to these traits, behaviors such as job performance may be associated with CWB receipt (as well as the receipt of other forms of interpersonal treatment such as citizenship), depending on the attributions that coworkers make about the those behaviors (see LePine & Van Dyne, 2001). Future research examining additional traits and behaviors would benefit by taking contextual factors such as group norms, group composition, and attributions into account. In addition, we were able to capture only facial ratings of physical attractiveness, even though bodily ratings also contribute to overall attractiveness. Although research has shown that the face is more important than the body in determining overall attractiveness (e.g., Confer et al., 2010), it would be informative if future research could capture both facial and bodily attractiveness.

In terms of possible mediating mechanisms, we suggest that, like emotion, some of these mechanisms may originate from coworkers. For example, coworkers may direct less CWB toward agreeable and attractive employees because they view such employees as worthy targets of ingratiating (Westphal & Stern, 2006). In addition, agreeable and physically attractive individuals may create a “warm glow heuristic,” whereby they are perceived to be more familiar even when their actual exposure is controlled (Monin, 2003). Consequently, they may receive more favorable treatment because their coworkers like them and perceive them to be part of their “in group.” It may also be that coworkers use disagreeable and physically unattractive employees as “scapegoats” on whom they can vent frustrations arising from other sources (e.g., Berkowitz & Green, 1962; Wills, 1981; Zawadzki, 1948). That is, frustration provoked by some event (e.g., getting yelled at by one’s boss, failing to receive an expected reward, etc.) may be displaced “downward” onto disagreeable and physically unattractive coworkers because those individuals are perceived as easy targets. In this case, employees with such characteristics would not be victimized because they elicit negative emotion in their coworkers directly but rather because negative emotion arising from other sources is indirectly transferred to them by their coworkers.
Other mechanisms may originate from employees themselves. Self-esteem is one of the best correlates of physical attractiveness, such that physically unattractive individuals hold negative views of themselves (Locke, McClear, & Knight, 1996). According to theories of self-verification (e.g., Swann, Stein-Seroussi, & Giesler, 1992), individuals with negative self-views chose interaction partners who appraise them unfavorably in order to reinforce their perception that their social environment is predictable. Applied to CWB, this suggests that physically unattractive individuals may be recipients of CWB because their low self-esteem prompts them to associate with coworkers who abuse them. Future research could investigate this apparently paradoxical behavior. In addition, employees’ social competence may be a potential mediator. Research has indicated that physically attractive individuals are perceived by others as possessing greater social skills (Langlois et al., 2000), and agreeableness is also associated with social competence (Eisenberg, 2002). As result, both physically attractive and agreeable employees may receive less CWB because their perceived and actual social competence allows them to develop more favorable relationships with their coworkers.

These limitations notwithstanding, this study has several strengths. First, similar results were found in two separate samples, increasing confidence in the generalizability of our findings. Second, data were collected from a variety of independent sources (i.e., focal participants, their significant-others, their coworkers, and independent raters). Indeed, in Study 2, none of the hypothesized links in the model were assessed with common sources of data. Although the independence of data sources does not prove the validity of the causal assumptions inherent in the model, it does eliminate one common source of concern (common-method variance). Last, and related, we utilized a consensual measure of physical attractiveness in Study 2 (i.e., multiple ratings of digital photographs by individuals who did not know the employees or coworkers and who were otherwise uninvolved in the study). Self-reports of physical attractiveness may be influenced by many extraneous factors, and coworker reports of employee attractiveness might well be contaminated by their affect toward the employee, thus making interpretational inferences circular (were employees rated as more attractive because they were better liked, or were they better liked because they were attractive?).

Practical Implications

Research on harmful behaviors has shown that victims of such behaviors suffer a number of adverse emotional and physical effects (e.g., Bowling & Beehr, 2006; Cortina et al., 2001). For managers, knowing who the targets of harmful behaviors such as CWB are likely to be may help them to monitor susceptible employees to prevent them from becoming victims or to provide counseling and social support if prevention attempts fail. For employees, although it is difficult to alter one’s physical attractiveness and, presumably, one’s level of agreeableness, employees should realize that, whether fair or unfair, appearances and personality matter in the workplace. If job applicants are advised to “dress for success” (Molloy, 1985) to fare better in the eyes of interviewers, one might be equally well advised to do the same in the workplace. As for agreeableness, though one is unlikely to change the genetic components of one’s level of agreeableness, agreeableness levels can and do change over time (Roberts & DelVecchio, 2000). Although the “power of nice” is unlikely to be as facile as that depicted in the business press (cf. Thaler & Koval, 2006), it may be possible for individuals to adjust the expression of their
agreeableness, a recommendation indirectly supported by evidence showing substantial within-individual variation in one aspect of agreeableness, interpersonal trust (Fleeson & Leicht, 2006). Overall, then, although knowledge of target characteristics can be used by others to simply blame victims, it can also be used in beneficial ways to help them.

REFERENCES


