The Effect of Personality in the Workplace:
A Review of Personality Typology in Regard to Workplace Operation, Workplace Stress, and
Counterproductive Workplace Behaviors
Taylor L. Owen
Wofford College

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Abstract

Personality typing in employer hiring practices is commonplace; however, employers waste valuable extant information if they do not continue to use it throughout the employee’s time at the company. Personality can have an effect on workplace function, worker stress, and counterproductive workplace behaviors, including worker victimization and cyberbullying. This literature review examines the ways in which routine preliminary personality typing of potential employees can affect hiring practices and workplace environments and, from that, how the differing personality types of workers can affect collective and personal stress as well as counterproductive workplace behaviors, especially workplace victimization and the predictive role of personality on assumption of bully and victim roles. The implications of personality on job success and workplace efficiency, personality on stress and mediation of stress, and personality on the existence and severity of counterproductive work behaviors are discussed and, overall, it is suggested that future research be done to determine more specifically how personality plays a role, in addition to introducing other types of testing to provide a more comprehensive view of the employee and their personality-level qualifications and potential detriments to the workplace.
Title

Traditional workplaces involve a group of individuals coming together at a specific time and location to, as a unit, accomplish a larger goal set by their employer through the completion of individual and collaborative tasks and projects. Whether this workplace is in an office setting, on a factory floor, or within a religious or educational institution, there are two major factors that are important to the success and operation of any workplace: that a workplace is productive, or able to output a net positive amount of work, and that a workplace is efficient, or able to reach its highest possible output with as few hindrances as possible. However, because a workplace is comprised of individual people, each from different backgrounds and with different tendencies and personality types, this bid for efficiency can be derailed. Inefficiency in a workplace lowers the total amount of productivity, which can cost companies anywhere from hundreds to millions of dollars. To avoid this, companies proactively expend significant effort and resources to ensure that their workplaces are able to run and continue running as efficiently as possible (Bowen, Ledford, & Nathan, 1991).

One method of proactively maximizing workplace efficiency is by gaining greater knowledge of potential employees before they are even hired. Companies look beyond candidates’ lists of past work experience to gain a holistic view of their qualifications. These extra-experiential qualifications come in the form of fundamental facets of these potential employees’ personalities; for instance, a pilot should have technical skills as well as inherent personality-level qualities of leadership, teamwork, and ability to operate effectively under pressure or the airline is wasting resources employing them when they could be employing another individual with inherent qualities that make them a more effective pilot (Hamilton, 2007), thus maximizing the efficiency and productivity of that workplace. Due to widespread
corporate interest and investment in increasing workplace efficiency across a range of professions, a relatively large body of research exists on the science of personality typing as it relates to worker fitness for specific job roles.

Many employers view personality examinations as an essential preliminary step in determining the holistic qualification of a potential new hire. These personality examinations are sometimes done through interviews or evaluation sessions with an industrial-organizational psychologist, but most frequently are conducted through the administration of a personality typing index. Personality tests are a form of psychological testing often used by employers to influence hiring decisions for potential employees as well as promotional and other job-related decisions for existing employees. Personality tests characteristics of motivation, attitude, and interpersonal ability and are primarily concerned with affective behavior (Black, 2007). Although many personality indexes exist, the majority of the literature on employer-implemented personality testing concerns itself with the Myers-Briggs Type Indicator (MBTI), the Five-Factor Model (FFM), and the Enneagram Model. However, this literature review will focus on the FFM and, briefly, on the Enneagram model, as the MBTI has been largely replaced in workplace settings with the other two.

The FFM was developed and validated by McCrae and Costa (1987) and is based on a participant’s identification with a number of trait adjectives and responses to questionnaire scales. The five broad dimensions of the FFM are as follows: extraversion versus introversion, agreeableness versus antagonism, conscientiousness versus lack of direction, neuroticism versus emotional stability, and openness to experience versus closedness to experience. These broad categories are each further broken down into six facets each that are described by simple trait adjectives, for a total of 30 trait adjectives across five dimensions. The majority of FFM research
focuses on the broader dimensions, but there exists a push for future research to be done on the relationships between specific trait adjectives and the workplace, rather than simply on their broad categorical dimensions. The Enneagram model is the least well-known and the least-validated of the three, but despite its lack of empirical validation it continues to grow in popularity among employers.

The Enneagram model of personality typing was developed by Jerome Wagner in 1980 from ancient Sufi Islam traditions but has been modified by other researchers for clarity (Riso & Hudson, 1999, Taylor, 2013, Yilmaz et. al, 2014); despite this, the model is generally considered to have the same level of effectiveness of use across slight adaptations. The Enneagram typology assumes that each individual falls into one of nine type categories. In Wagner’s original model, these categories were 1) Ego-Resent, 2) Ego-Flattery, 3) Ego-go or Ego-Vanity, 4) Ego-Melancholy, 5) Ego-Stinge, 6) Ego-Coward, 7) Ego-Plan, 8) Ego-Vengeance, and 9) Ego-Indolent. They were unified by core tendencies, but then broke into nine general typologies with respect to lifestyles, and from this each typology differed by peripheral characteristics and individual thoughts, feelings, and actions. These categories represent a distinct preferred method of interacting with the world, but each of the categories are also connected to two other categories by an arrow, allowing for positive and negative fluctuation. This allows each person one primary type, and two lesser subtypes which account for the acquisition of negative characteristics in times of stress and the acquisition of positive characteristics in times of security. The currently recognized (2013) types interact in much the same way, but have been renamed to include: 1) perfectionists, 2) givers, 3) performers, 4) romantics, 5) observers, 6) loyal sceptics, 7) epicures, 8) protectors, and 9) mediators. Each of the 9 types are defined by a specific worldview which is broken down into common personality traits, typical behaviors and
associated personal values. The unconscious motivations underlying each personality type are seen as a basis for explaining individual behavior (Sutton, Allinson, & Williams, 2013).

Although personality tests have been widely used by employers for decades, the criterion validity of these types of tests came into question from a result of research that uncovered low and negative validity values in the application of some personality tests for industrial use, which was published by Guion & Gottier in 1965. As a result, a negative stigma still exists around the usefulness and fairness of basing employment and job-related decisions on personality test results. However, more current research shows relational patterns between personality variables and workplace criteria that have been proven to be consistent and of practical use for the selection of employees (Hough & Oswald, 2005). Learning about the relationship between personality type and potential job fitness is beneficial for both the employer and employee, and the lingering stigma around personality typology is resultant of a lack of sufficient education on the topic. Personality testing has been shown to have real-world benefits for both employers and employees. Employers are able to determine the potential fitness of candidates and therefore choose the candidates who are the most qualified not only on paper, but in their fundamental attributes, which can translate to employee effectiveness at a job-specific level and maximized employee productivity and efficiency, allowing for the greatest possible benefit to the employer. Although this may seem like a detriment to qualified applicants who do not meet personality-level criteria, personality typing is also being used at the educational level to determine students’ potential viability in future professions. For example, a positive correlation was found between personality type and law school survival and attrition, and college pre-law advisors now often use psychological typing indicators in career counseling to guide students’ decisions (Marcin, 1992). This allows for testing of potential job fit at the preprofessional level and can help ensure
that those who enter certain fields are the most qualified candidates in all aspects, giving them
the potential for greater job success and satisfaction in the future.

However, interest in maximizing employee effectiveness and predetermining candidate
qualification are not the only reasons for employers to learn about and implement personality
typing for candidates pre-hire. These types of preliminary tests are generally fairly extensive and
go beyond the range of personality traits that employers look for, so they can also be useful in
determining potential future problems in the workplace based on other results already contained
within the test. This allows employers to proactively prioritize efficiency by identifying and
taking steps to negate foreseeable workplace issues that can be caused or exacerbated by
personality. As mentioned, workplaces are often filled with people from varying backgrounds
with different tendencies and personality types. Even if all of the employees on an office floor
have been chosen because they possess specific personality traits of value to their employer,
these traits are only a few facets of the vast and complex nature of each individual personality.
By giving new hires a comprehensive personality assessment, employers can predict potential
detriments to workplace productivity and efficiency that are unrelated to individual job
qualification and competence.

Common workplace problems that are linked to personality type are stress,
counterproductive work behaviors (CWBs), and workplace victimization and bullying. Job-
related stress is defined as the perception of a discrepancy an individual’s ability to fulfill the
demands of stressors and the existence of those environmental demands, and more generally, as a
person’s mental and physical response to the perception of workplace demand and challenge
(Ongori & Agolla, 2008). Occupational stress can occur as the result of one or more biological,
environmental, psychological, or social causes. Stress and personality are deeply interconnected
to both counterproductive work behaviors and workplace victimization and bullying and can be both a causal and resultant factor. Counterproductive work behaviors can cover a broad spectrum of behaviors exhibited by individuals while on the job but are generally defined as intentional behaviors that violate the organization’s practices and make it more difficult for the organization to achieve pre-set goals. This encompasses behaviors as minor as spreading false rumors and littering to behaviors as extreme as workplace victimization, harassment, and physical violence (Mount, Ilies, & Johnson, 2006). Although workplace victimization falls under the broader spectrum of CWBs, it is a particularly problematic behavior that has been heavily linked to personality for both the bully and victim roles and occurs a result of an underlying personality trait or power dynamic (Aquino & Thau, 2009). Recently, cyberbullying in the workplace has also become an increasing problem with the rise of the internet. Workplace victimization and workplace cyberbullying, while closely related, have differing implications in their effects on victims especially; while workplace victimization is generally limited to face-to-face communication and physical proximity to the bully, workplace cyberbullying does not require face-to-face contact and can become more extreme than traditional victimization. Workplace cyberbullying often extends into the personal life as well as the work life of the victim through the internet and the nearly universal use of smartphones, computers, and tablets.

This literature review will examine the research on personality typing’s influence on hiring practices and its ability to predict negative personal and group workplace impact. It will also focus on factors that decrease workplace efficiency by examining research on the interaction between specific personality typologies and stress, counterproductive workplace behaviors, and workplace victimization and cyberbullying; namely, how personality type acts on an individual’s predisposition and response to workplace stressors, how personality type correlates with the
occurrence of different counterproductive workplace behaviors, and how personality type can be predictive of “bully” and “victim” roles within interoffice workplace victimization. Finally, it will discuss methods of increasing workplace efficiency through hiring practices, stress control techniques, and proactive measures to counteract potential interpersonal workplace conflict.

The Role of Personality Type in the Workplace

A comprehensive body of research exists on the applications of three major personality indexes in the workplace: The Myers-Briggs Type Indicator (MBTI), the Five-Factor Model (FFM) and more recently, the Enneagram model. The MBTI is the more colloquially known personality index, but the FFM has become an industry standard for preliminary applicant screenings and even more complex predictive measures of later workplace problems. A much smaller body of research exists on the Enneagram model, which is growing in popularity for its ability to integrate models and predict job involvement.

The Five-Factor Model

The Five-Factor Model (FFM) is the most commonly cited and researched model of personality typology in addition to being one of the most flexible models across occupational fields. The FFM was created to discern the fundamental dimensions of personality and categorize individual differences with respect to their fundamental emotional, interpersonal, experiential, attitudinal, and motivational styles (McCrae & John, 1992). It is used to categorize workers into general dimensions based on a measure of participant identification with a number of trait adjectives and responses to a questionnaire. The general dimensions of the FFM are as follows: extraversion versus introversion, agreeableness versus antagonism, conscientiousness versus lack of direction, neuroticism versus emotional stability, and openness to experience versus closedness to experience. These categories are each further broken down into six facets that can
be described by simple trait adjectives. This model is comprehensive in nature and was designed to be able to extend across cultures and disciplines which makes it valuable to a wide array of employers, and its ability to quantify an individual’s motivation and interpersonability has led to its widespread and sustained popularity.

The Five-Factor model allows for the identification of specific traits that employers value when going through the hiring process with potential employees. Research has suggested that both broad-scale trait inference by the interviewer and personality’s influence on pre-interview behaviors can affect interview success. In a 2006 study conducted by Caldwell & Burger, measures of the Five-Factor Model were obtained from a sample of graduating college seniors who were actively engaged in job searches. Later reports by these participants showed that certain traits were positively related to the likelihood of success in the job application process. Extraversion, openness to experience, and conscientiousness were positively related to participants’ social sourcing to prepare for interviews. Participants who used social sourcing to prepare for interviews tended to receive more follow-up interviews and job offers. This suggests that employers value the apparent presentation of extraversion, openness to experience, and conscientiousness as broad personality traits in candidates during face-to-face interviews and that actually possessing those same traits may give an advantage when preparing.

The traits described in the FFM can also be used to predict with relative success a number of things about employees. One of these things is an individual’s contribution to the structure of a workplace, in addition to that individual’s perception of the structure of a workplace. The structure of a workplace, or the way that the people in a given workplace interact, is also known as a workplace network. A workplace network often includes larger structures, such as departments or teams, which are comprised of relationships between individuals, whether that be
with same-status coworkers, supervising figures such as bosses or CEOs, and lower-ranking employees, whether they are directly subordinate or another member of the staff, such as a janitor. This meta-analysis examined 138 independent samples to discover the roles of personality traits in job performance and career success. It was found that personality predicted job performance and career success significantly above network position and that network position mediated the effects of negative personality variables, resulting in positive outcomes (Fang et al., 2015). This study provides implications not only for upward mobility of employees with certain personality traits, but also for the perception of upper-level employees who may not have desirable personality traits. Upper-level employees may be seen in a more positive light as a result of their network status, despite having personality traits that employers may find negative in entry-level employees.

Different approaches exist for attempting to predict workplace behaviors as a function of FFM personality traits. In 2010, Bolton, Becker, and Barber compared the predictive validity of FFM traits with respect to one-, two-, and five-dimensional approaches in measuring counterproductive work behaviors (CWBs). 234 participants, all employed, were asked to both take a measure of personality using the Big Five Personality Inventory (John & Srivastava, 1999) and to establish the validity of the Counterproductive Work Behavior Checklist (CWB-C). These results of FFM typing were compared to previous research conducted with one- and two-dimensional approaches to verify these approaches in predicting CWBs. This was also compared to five-dimensional measures to determine whether greater inclusivity of all five Big Five dimensions would give researchers and employers alike a better predictive capacity for an employee’s behavioral tendencies based on personality traits. It was found that in all approaches, FFM dimensions were able to predict the occurrence of CWBs. This implies that employers can
use preexisting personality tests, taken at the point of hire, to identify current and predict potential future CWBs that may be hindering workplace productivity and efficiency.

A study conducted by Helle et. al in 2018 examined the relationships between positive and negative workplace behaviors at the facet level, expanding on the wealth of research that has been done on the five generalized domains in predicting employee behaviors. Through surveys of university students and Amazon Mechanical Turk (MTurk) samples, Helle et. al demonstrated that FFM facets are meaningfully associated with positive and negative workplace behaviors. It was found that counterproductive workplace behaviors (CWBs) were associated negatively with the facets of agreeableness and conscientiousness, whereas positive workplace behaviors such as organizational citizenship behaviors were associated positively with the facets of extraversion and conscientiousness. This has implications not only for the known predictive capabilities of future workplace behavior of the FFM, but also suggests that specific facets of the domains can be associated with specific positive or negative workplace behaviors.

The Enneagram Model

The Enneagram model has historical basis in the Sufi tradition of Islam but was first outlined and tested by Wagner in 1980. However, it appears to be open to personal interpretation as other researchers have implemented adaptations (Riso & Hudson, 1999, Taylor, 2013, Yilmaz et. al, 2014), although the Riso-Hudson Enneagram Type Indicator is perhaps the most credible and established version. The Enneagram model is built around nine type categories which represent an individual’s mechanisms for dealing with the world. The Enneagram model has been growing in popularity within the workplace, but little research has been conducted as to support or refute its validity with respect to usefulness as a hiring tool, predictive ability for possible individual shortcomings in the workplace, relation to counterproductive workplace
behaviors, or responses to stress. However, the studies that do exist overarchingly validate it as a personality typology, with responses ranging from concluding that it provides an adequate degree of internal consistency, mixed support for construct validity, and strong support for heuristic value (Newgent, Parr, Newman, & Wiggins, 2017) to concluding that it has strong validity and potential for application in integrative approaches (Sutton, Allinson, & Williams, 2013).

The 1980 study by Wagner tested 390 adults ranging in age from 19-81 who were already familiar with the Enneagram model and were comfortable making a judgement as to which Enneagram category they best fit. Enneagram self-reports were tested against MBTI (1976) and Millon-Illinois Self-Report Inventory (1974) results. The Enneagram Personality Inventory was constructed to establish predictive validity. After the initial testing, participants were re-contacted to complete the measures again. The Enneagram model was found to have 80% or higher test-retest reliability, and it was ultimately found that there was a consistency to how people perceive themselves over time, and that the three systems of personality typology used (MBTI, Millon, and Enneagram) worked to mutually support and sustain one another’s propositions with respect to broad personality typing. With respect to predictive validity, it was found that the Enneagram Personality Inventory provided a rough but significant objective test that could distinguish between the nine Enneagram types. This suggests that the Enneagram model could, with much refinement and further research, be a valid measure of distinguishing personality types and provide different facets of personality which can be explored and analyzed.

The Enneagram model was further validated by a 2011 study by Scott which claimed to provide first and only empirical evidence of nine personality types as they related to the Enneagram model. This study took data from 6,401 subjects. Unlike other research, this study
did not require participants to have knowledge of the Enneagram model or their personal Enneagram types beforehand. Half of the data was tested for validation and the other half was tested for factor consistency. It was found that the data factored into nine distinct categories which clearly described the nine Enneagram personality types. In addition, internal consistency was established factors regardless of participant knowledge of Enneagram types or gender. The first and second halves of the dataset upheld one another.

A 2014 re-evaluation of the Enneagram model was conducted by Yilmaz et. al and coined the Nine Types Temperament Model (NTTM). The Nine Types Temperament Scale (NTTS) was developed from this model and distributed to 990 participants, who self-rated on 91 items using a 3-point Likert scale. Concurrent validity was tested with Cloninger’s Temperament and Character Inventory (TCI) and Akiskal’s Temperament Evaluation of Memphis, Pisa, Paris, and San Diego Autoquestionnaire Version (TEMPS-A). The types presented in the NTTM showed significant correlations with both TCI and TEMPS-A, which support the reliability and validity of the NTTS. Although there are differences between these different iterations of the Enneagram model, there seems to be similar support for a nine-category style of personality typing based on Wagner’s original Enneagram theories.

A 2013 study by Sutton, Allinson, and Williams compared the Enneagram model to other established forms of personality assessment including the FFM. It also tested the predictive validity of the Enneagram model in regard to employee-related outcomes, such as job attitudes and cognitions, compared to other established forms of personality assessment including the FFM. These employee-related outcomes were job involvement, self-efficacy, and the monetary value of stress. It was found that Enneagram types 5 and 9 may benefit from training to improve job-related self-efficacy and that with extensive further relevant research and evidence the
Enneagram may have potential to function as an employee selection tool. In addition, it was found that while the FFM outranked the Enneagram model in terms of predicting perceived stress, the Enneagram model was able to predict job involvement while the FFM could not. Lastly, it was found that the Enneagram model allows for the integration of models that have little apparent connection, giving a greater understanding to human behavior in the workplace.

A 2007 dissertation by Kingma looked at the value of using Enneagram typology concepts to facilitate personal development interventions between coworkers experiencing conflict situations. Kingma demonstrated how the Enneagram typology could be used as a model to allow individuals to understand the subliminal reactions of themselves and others to conflict based on the underlying implications of the mechanisms of actions of the nine types. Kingma also found that the Enneagram model worked well in that it was both time efficient and created comprehensive understanding that led to long-term solutions to problems. It appears to be an effective method of “unsticking” coworkers from false perceptions of conflict situations when appropriately applied, which has implications in that even if it does not have sufficient foundation to be used as a predictive measure of personality-based workplace conflict, it may function as an effective model of conflict resolution, thus increasing workplace efficiency through understanding of the Enneagram typology and, from that, fundamental understanding and empathy as to the motivations and underlying processes of others in conflict situations.

Understanding Test Validity

As mentioned, the article published by Guion and Gottier (1965) created a negative stigma when it was revealed that certain personality tests had a low or even negative validity when used for industrial applications. Although a large body of research has been published since in validation of the strength of personality tests for industrial uses such as determining
holistic applicant qualification and predicting positive and negative employee behavioral
tendencies, it is still crucial to choose the right measure when conducting personality tests for
applied uses. A 1989 study by Day and Silverman highlighted this importance. They investigated
the relationship between specific personality facets and later job performance. It was found that,
even when cognitive ability is included in data analysis, three personality scales were
significantly related to job performance. To further improve testing strategies and select
candidates more accurately, Day and Silverman suggested the implementation of relevant
measures of personality dimensions based on job type and employer.

Although aspects of personality can be used to accurately predict job performance, this
assumes that the test is matched correctly and that the applicant takes the test objectively.
Research done on the role of social desirability in personality testing for employee candidacy by
Ones, Viswesvaran, and Reiss in 1996 highlights the need for awareness in regard to response
distortion in personality typing measures. In this meta-analysis, measures of social desirability
were correlated with one or more of the following: emotional stability, extraversion, openness to
experience, agreeableness, conscientiousness, cognitive ability, years of education, school
success, task performance, training success, counterproductive work behaviors, and job
performance. It was found that although the motivation of social desirability is not as
widespread an issue as originally anticipated, social desirability does not act as a predictor, a
suppressor, or as a mediator when analyzing job performance. However, social desirability is
related to measures of emotional stability and conscientiousness. Although personality testing
validity manages to stay intact with respect to social desirability, the issue of directly faking
personality assessment measures to appear more desirable is still a very real factor in industrial
personality testing. Jackson, Wroblewski, and Ashton conducted laboratory studies in 2009 in
which some testing participants were instructed to respond as if they were applying for a job, while other participants were given standard instructions before taking the measure. It was found that the effect of faking caused almost a full standard deviation shift on the mean of all scores in integrity measures and almost a third of a full standard deviation shift on the same measures presented in a forced-choice format. In addition, there was a significant correlation between forced-choice testing and self-reported workplace delinquency. Although these results are not as severe as might be expected, it is still important for employers to be aware that social desirability and faking can be factors in employee personality test-taking.

In conclusion, the Five-Factor Model is shown to be the industry standard personality type index for its ability to identify good potential candidates and predict things about those candidates. The Enneagram model shows promise in its validity, and its growing rise in the workplace means that a large body of research needs to be conducted to examine the relationship between the Enneagram model and the workplace. However, what is interesting about these two tests is that the FFM is considered to be widespread and cohesive in nature with only five dimensions of personality, whereas the Enneagram model postulates nine personality traits. Some level of validity has been established for both tests, but is there greater value in utilizing a five-factor model than a nine-factor model?

**Personality Type and Stress in the Workplace**

Job stress is a common, even expected, facet of employee life. Workers have to contend with the expectations of their employers in the form of deadlines, quotas, and performance evaluations, which may, by attempting to encourage maximum worker output, actually serve to decrease employee productivity and efficiency at work.
Mental stress in the workplace can affect not only mental health, but physical health as well. A study conducted by Nimbrate, Al Hassan, Guffey and Myers (2011) examined the effect of individual personality on musculoskeletal loading in response to physical and psychosocial stressors in the workplace environment. This study tested eighteen healthy male participants classified into thinking or feeling personality types on their ability to complete isometric pulling exertions while completing mentally demanding tasks and without completing mentally demanding tasks. During this, surface electromyography was implemented to quantify biomechanical responses of the neck and shoulder muscles. It was found that mental stress affected muscle loading and muscle activation in the neck and shoulders. In addition, participants reported feeling more frustrated during combined physical and mental tasks. The feeling participants showed greater muscle activation during the mental tasks. These results imply that response to mental stress can be affected by individual personality. In the workplace, employees are under a great deal of mental stress as they work to be efficient and competitive in their work completion while they also cope with physical and social demands. Aggravation of the body’s biomechanical response system in the workplace is not fully understood, but the differences between thinking and feeling personalities seems to indicate that some personalities are more suited to coping with combined mental stress and physical and social demands.

A similar study was conducted on the influence of psychosocial stress and personality on the mechanical loading of the lumbar spine by Marras et. al (2000). The lumbar spine, like the neck and shoulder muscles, is also an integral part of the typical work day; the lumbar spine is engaged when employees sit at their desk, pick up office supplies, and even while standing and walking. This study examined both men and women. Participants performed sagittally symmetric lifts under conditions of stress and no stress. A potential link was found between psychosocially
stressful environments and low back problems, and between psychosocial stress and personality traits on spine loading. Like the study on neck and shoulder muscles, this has workplace implication because workplaces are often psychosocially stressful environments. This stress, if not managed or reduced, may later effect employees’ ability to perform their job efficiently due to lower back problems and pain.

There may be a relationship between occupational burnout, stress, and personality. A 1991 study by Mo found that teachers with type A personalities were less susceptible to burnout and the effects of stress, while teachers who were unmarried or new to the school had a higher impact of stress on burnout rate. This was linked to a lack of social support in these groups. A 2009 meta-analysis by Alarcon, Eschleman and Bowling examined the effects of FFM personality type on three major burnout factors: emotional exhaustion, depersonalization, and personal accomplishment. It was found that extraversion, conscientiousness, and agreeableness were all significantly correlated with burnout. The implications of this experiment were that employee personality was consistently related to burnout, and that personality variables could act as potential future predictors of burnout. Yet another meta-analysis by Swider and Zimmerman (2010) quantified the relationship between FFM dimensions and the job burnout dimensions of emotional exhaustion, depersonalization, and personal accomplishment, as well as absenteeism, turnover, and job performance. It was found that job burnout played a partial mediation role between FFM personality traits and turnover and job performance, and a full mediation role with absenteeism.

Job stress can strain not only affect an individual’s physical and mental state but can place a strain on wallets as well. About 10% of the Gross National Product in the UK is lost to decreased productivity, increased employee absence, and turnover as a result of work stress.
(Robertson, 2005). A 2013 study by Sutton, Allinson, and Williams considered the monetary cost of workplace stress and the personality-level differences in assessment of and reaction to stressors among other job-related outcomes while testing the predictive validity of the Enneagram model as compared to the FFM. 416 participants, who were mostly British and American citizens with full-time jobs and who had completed some form of formal Enneagram education completed the Enneagram type survey as well as the FFM test. It was found that the FFM accounted for the greatest amount of perceived stress (29%) but that the Enneagram model was also able to account for a significant amount of perceived stress. These results imply that personality testing may be useful not only in informing employers of the differences in job outcomes for different personality types, but also in personal assessment of reactions to and coping with work-related stressors. In addition, future research may be able to explore the effectiveness of specific coping mechanisms on Enneagram personality types and curate personality-specific avenues for stress management and coping.

**Stress Management**

Some personalities may be better at coping with workplace stress than others. A 2013 study conducted by Anitei, Stoica, and Samsonescu on the relationship between personality traits and perceived stress tested entry-level Romanian employees across urban and rural areas. Participants were administered the personality inventory DECAS (Sava, 2008), which is the Romanian validated instrument for the FFM, and the stress questionnaire CAPES (Anitei & Chiraif, 2010). It was found that, despite less-than favorable economic contexts and labor markets in Romania, there was a significant correlation between emotional stability and workplace satisfaction as well as between conscientiousness and workplace satisfaction.
Individuals who fall in the broad category of conscientiousness may experience less stress and more workplace satisfaction than those who do not.

In a 2015 study, Snyman and Loh researched the relationship between cyberbullying and victim stress. The victims felt significantly increased work-related stress as a result of cyberbullying practices. It was also hypothesized that job satisfaction would be negatively associated with cyberbullying, but this was not supported; however, researchers believe that job satisfaction is impacted by many factors, including cyberbullying, because this hypothesis had been previously supported. The research also found that employees who had a more optimistic outlook were affected positively, even faced with cyberbullying. These results indicate that optimism can mediate both stress and the negative emotional and psychological effects of cyberbullying.

Spirituality and religion can also mediate the influence of stressors. A study on the relationship between spirituality and religion and cardiovascular responses, physical manifestations of illness, stress, and mood was conducted by Lawler and Younger (2002). Subjects participated in a betrayal interview. During this time, blood pressure and heart rate were being monitored. It was found a connection existed between spirituality and involvement in organized religion and individual resilience against stress and stress-related illness. In a 2014 meta-analysis by Greasley and Bocârnea, it was found that, similar to known effects of spirituality on stress reduction and to the mediating spiritual and motivation-driven effects on workplace conflict, spirituality’s role in the workplace, especially in servant-leadership managerial practices, enhanced the performance of the servant-leader’s subordinates while simultaneously leaving them feeling happier and with an increased sense of spiritual well-being.
Spiritual effects can also be associated with decreased interoffice conflict, emotional intelligence, and increased productivity and efficiency in the workplace. A 2002 study by Tischler and McKeage cited an apparent link between spirituality and workplace performance and effectiveness as well as a positive relationship with emotional intelligence and workplace success. This suggests that there may be a link between spirituality and emotional intelligence and that link may have positive implications for employee success in the workplace.

In summary, stress largely serves as a detriment to workers and organizations alike. Current research suggests that many of the mediating effects of stress are difficult to artificially replicate, because they are trait-level personality tendencies or personal decisions about religion, which can still be considered a facet of personality and individual-level choice, rather than outside factors. Future research should focus on how an artificially controlled amount of stress can be introduced into the workplace to maximize productivity by inducing the correct amount of stress for workers to work efficiently without burnout or shutting down.

**Personality Type and Counterproductive Workplace Behaviors**

While employers traditionally utilize the Five Factor Model (FFM) in an attempt to predict a candidate’s personality-level qualifications and potential positive impact on their organization, recent research has focused on the ways that these same test results can predict an individual’s tendency towards counterproductive work behaviors (CWBs). CWBs can cover a broad spectrum of behaviors exhibited by employees on the job but are generally defined as intentional behaviors which harm the interests and integrity of the organization and its practices in addition to hindering the organization from meeting its pre-set goals (Mount, Ilies, & Johnson, 2006). However, CWBs can also be behaviors towards coworkers in the form of workplace victimization and bullying, or even physical violence towards other employees.
Personality type has the potential to affect both CWBs against the organization and CWBs against other human beings at every level. From the moment an individual enters into the workplace, personality can affect their perceptions and appraisal of the environment. When workplace events occur, personality can color their attributions and perceptions of causation, their physical and emotional responses, and affect their ability to inhibit aggressive and counterproductive actions. Although the exact mechanisms remain unknown, relationships have been established between certain personality traits and the exhibition of counterproductive workplace behavior (Spector, 2011).

Different approaches exist for measuring CWBs as a function of the Big Five personality traits. Bolton, Becker, and Barber conducted an experiment in 2010 to compare the predictive validity of FFM traits with respect to one-, two-, and five-dimensional approaches in measuring CWBs. 234 participants, all employed, were surveyed to both take a measure of personality using the Big Five Personality Inventory (John & Srivastava, 1999) and to establish the validity of the Counterproductive Work Behavior Checklist (CWB-C) based on previous research that worked with one- and two-dimensional approaches. This was compared to five-dimensional measures to determine whether greater inclusivity of all five Big Five dimensions would give researchers and employers alike a better predictive capacity for an employee’s tendency towards CWBs based on their personality. It was found that the one- and two-dimensional approaches – specifically, the approaches that dealt only with conscientiousness and/or agreeableness – predicted a greater occurrence of all potential CWBs. However, when all five dimensions were considered, the researchers had rudimentary evidence that specific CWBs could be predicted as a function of Big Five trait scores.
Helle et. al conducted a 2018 study to further specify the relationship between the FFM and CWBs; namely, whether specific trait-level facets could be associated with CWBs. Participants were given surveys through a university and also through Amazon Mechanical Turk (MTurk). It was found that, as hypothesized, many FFM facets were significantly associated with unethical behaviors across samples, and a number of FFM domains and facets that related to specific types of workplace behaviors. This research supports the use of increased facet-level analyses of personality when attempting to predict future CWBs.

As a result of the predictability of CWBs from certain facets of the FFM, current research is advocating for the reduction of CWBs at the point of employee hire, rather than attempt to moderate their effects post-hire. A study by MacLane and Walmsley (2010) addressed a gap in the literature between theory development on reducing CWBs and procedural development in reducing CWBs. This review concluded that the divergence in the literature surrounding CWBs was centered around the difficulty in measuring intentionality in forms of tests to scan applicants for pre-CWB personality variables, so the body of research split between attempts to measure intentionality and attempts to understand the cause of CWBs after the fact.

Traditional Workplace Victimization and Bullying

While workplace victimization falls under the definitional umbrella of counterproductive workplace behaviors, they are of particular interest because of the implications that personality type has on the bully-victim dynamic. Workplace victimization has been shown to result from two generally recognized sources: either as a mode of counterproductive work behavior, or as a result of an underlying personality trait or power dynamic (Aquino & Thau, 2009).

Some personality traits may lend themselves to assuming the victim role in workplace harassment, while other personality traits may decrease the likelihood of becoming the subject
workplace victimization. A meta-analysis by Glasø et. al published in 2017 showed that individuals who scored high on neuroticism were more positively correlated to exposure to workplace harassment, while individuals who scored high on extraversion, agreeableness, and conscientiousness were more negatively correlated with exposure to harassment. This implies not only that some personality traits may therefore be more likely to be victims, but also that other personality traits may lend themselves to the role of the bully. This implication was supported in Nielsen & Knardahl’s 2015 study which found that personality traits may be both predictors and outcomes of workplace bullying. This study examined the influence of personality traits on victimization and bullying in the workplace over two years on 3,066 Norwegian employees. It was found that the neuroticism dimension significantly correlated with the bully role, while conscientiousness was the only significant correlate of the victim role. Victimization from bullying was significantly reverse associated with agreeableness, conscientiousness, and openness.

Further research on the causes and implications of the victim role shows that targets of workplace victimization tend to have slight personality-level differences. A 2007 study by Glasø et. al shows the differences in personality between the victim group and the non-bullied group. It was found that there were significant differences between victims and non-victims at the personality level. Victims tended to be more neurotic and less agreeable, conscientious, and extraverted than non-victims. Clustered victim data shows that generalized victim profiles do not exist, but a cluster of the victims showed increased emotional instability. These results indicated that there is some effect of trait personality types on victims of workplace bullying. A similar study conducted by Coyne, Seigne, and Randall in 2000 on personality traits of victims took a measure of 60 bullied and 60 non-bullied participants who completed the ICES Personality
Inventory (Bartram, 1994, 1998). It was found that significant differences existed for those in the victim and nonvictim roles. The victims were reported as being less independent, less extroverted, less stable, and more conscientious. In this study, ICES personality traits were strong predictors of victimness.

**Workplace Cyberbullying**

Cyberbullying in the workplace is considered to be comparatively worse than traditional workplace bullying, with extreme effects on employee physical and mental health. Little is known about cyberbullying in workplace environments, because it is a relatively new phenomenon. As a result, comparatively little literature exists exploring the effects that cyberbullying specifically has on adults in a workplace environment. To bridge that gap, Keskin et al. (2016) created a theoretical framework encompassing the relationship between workplace cyberbullying and counterproductive work behaviors as a function of employee emotional intelligence. This study postulated that cyberbullying had an effect on counterproductive work behaviors (CWBs) and that higher levels of employee emotional intelligence would give high-emotional intelligence employees the capability to handle workplace stressors better than low-emotional intelligent employees, who contribute to CWBs by engaging in workplace bullying as an outlet for workplace stressors. In addition Keskin et al. (2016) provided insight into the effects of workplace cyberbullying on the victims by stressing that the digital nature of workplace cyberbullying causes it to permeate into employees’ home lives and therefore causes a feeling of being trapped due to the all-encompassing nature of technology in modern times. Conversely to more traditional or face-to-face workplace bullying and victimization interactions, the victims cannot simply go home to escape from the bullying practices, and therefore not only
are CWBs exacerbated on the part of the victim, but also the bully, who has extended access and influence over the victim due to the digital nature.

Snyman and Loh conducted a study in 2015 to examine the effects of cyberbullying on workplace environment and job outcomes. Several studies have provided evidence suggesting that workplace cyberbullying is often associated with increased stress and decreased job satisfaction. Expanding upon previous research, this study aimed to explore the rudimentary cause of cyberbullying among adults in the workplace, specifically by examining the role of optimism as a mediating factor between cyberbullying and job outcomes. Participants were asked to complete an online survey designed to measure the relationship between cyberbullying and job satisfaction and stress in addition to discovering whether optimism played a mediating role. It was found that optimism is positively related to job satisfaction and negatively related to cyberbullying and stress. In addition, optimism was found to have a partial mediating effect on the relationship between cyberbullying and job satisfaction, indicating that cyberbullying may only be one of many contributing factors to workplace stress and job dissatisfaction.

In summary, counterproductive work behaviors are problematic not only to the employer, but often to other employees. Even those CWBs which do no harm to coworkers end up costing the company money, but the CWBs which do harm other workers are especially problematic. CWBs can be the result of a physical manifestation of stress, and in turn CWBs can cause stress, creating a snowballing effect that is detrimental to employer and employee. In addition, trait tendencies towards CWBs can be good predictors of an individual’s tendency to commit CWBs, but additional research needs to be conducted to attempt to specify amongst facets and traits what exact CWBs an employee may tend towards. In addition, researchers should explore how to minimize or reduce the occurrence of current CWBs.
Discussion

The study of personality’s effects in the workplace has implications for many aspects of employer and employee life. Results of multiple studies on personality typing in the workplace show that it can be mutually beneficial to both employers and employees, allowing employers to maximize workplace efficiency by making informed hiring decisions to proactively improve the quality of work done in addition to acting as a predictive tool to allow employers to identify potential detriments in the workplace, especially the tendency of certain personality types towards CWBs. This technology is also being expanded to the preprofessional fields, allowing students to make informed decisions about what career paths might best fit their personalities naturally and promoting graduate school completion rates. The Five-Factor Model (FFM) is most commonly used for industry testing and has been shown to provide a comprehensive and cross-cultural view of personality, with the ability to predict future problems at not only a domain but also a facet level. Despite the FFM’s relative comprehensiveness and widespread use, the Enneagram model is growing in popularity. Studies have shown that the many iterations of the Enneagram model are all similarly somewhat validated, and that the Enneagram model may be able to provide integrative modeling that the FFM lacks. In addition, the spiritually-based nature of the Enneagram model and the flexible nature of the personality groupings has been shown to have positive effects on worker self-understanding as well as worker understanding of others in conflict situations. Lastly, this literature review explored some common flaws and misconceptions about personality testing: first, the potential flaw of employers who do not choose the correct measures and therefore have slightly invalidated results. Second, there is a misconception that candidates will lie on personality tests to appear more qualified for the job they want. While this holds some truth, it was shown that personality tests retain a fair amount of
validity, especially in forced-choice models. This may be because forced-choice models may lead the individual visually to the choice that most represents them, making it harder to misrepresent themselves than on free-response type tests. So long as the test is correct for the occupation, personality tests have been proven to be a valid method of determining personality characteristics.

Stress is a nearly universal workplace norm at some level or another. Studies looked at the biological effect of personality and stress and found that certain personalities may be more susceptible to muscle strain in the face of psychosocial stress, potentially leading to problems later in life. Occupational stress and personality type may have implications for employee burnout, and employers and employees alike can use this research to educate themselves and take preventative measures against burnout, especially if they are newer to the job or lack social support. Stress affects many areas of worker life and can extend to the company as well, costing the employer money in productivity and efficiency. For this reason, companies moving forward should take interest in funding research that tests how stress is affected by personality and also how to manage stress at the individual and group level. Although research has shown that low levels of stress can help workers be productive, high levels of stress can cause employees to shut down and become a detriment to productivity, often because of overwhelming employer demands for greater productivity. Some stress reduction techniques were explored in this review of the literature: emotional stability, optimism, and trait conscientiousness are all personality-level facets of stress reduction, while spirituality is another major factor that has been shown not only to reduce stress but increase workplace productivity and job success. It would be interesting if researchers attempted to create some sort of psychological training courses to attempt to shift the personalities of more stress-prone individuals towards optimism, emotional stability, or
conscientiousness to see if stress can be mediated in non-stress-resistant individuals at the personality level. Also, because while employers can educate employees on the benefits of spirituality, they cannot force employees to become spiritual just to mediate stress and increase job performance. Research moving forward should focus on how employers can artificially create a stress level within the work environment that maximizes productivity without causing interpersonal conflict, burnout, or other factors against workplace function.

Counterproductive work behaviors are largely affected by personality, although stress, boredom, and job monotony can play a role. CWBs can range from being relatively harmless, but still detrimental to productivity, to extremely dangerous for other employees. Because of this, a large amount of corporate interest exists in attempting to predict a candidate’s likelihood towards counterproductive work behaviors. It was found that, while personality is a good indicator of future CWBs, employers should keep in mind that it is difficult to measure current or future intentionality in a test, so they are not perfect. In the future, research should move towards the validation of integrity testing as well as looking at more ways to predict the types of CWBs that may arise from individuals – it is not as helpful at the dimension level, because generalized results of tendency towards CWBs may be predicting the CWB of procrastination, a relatively minor problem, or the CWB of aggression or workplace victimization, which is a major one.

Workplace victimization is especially interesting and important among adults. While it was found that personality traits can sometimes predict those whose personalities will fall into the victim role, substantially less research exists on the personalities that can predict the bully role. Arguably, identification of the bully role is more important, as without antagonists there would be no victims. In addition, a substantially greater amount of research on adult workplace cyberbullying is necessary. It has been shown to have extreme effects on the mental and physical
health on the victim, which not only opens the employer up to liability but also can be a massive detriment to workplace function and productivity on both the part of the bully and the victim. The bully spends significant time not working to antagonize the victim, and the victim is under such great stress and emotional instability that they, too, will have a difficult time doing their jobs. Research moving forward should focus not only on more accurate predictions of workplace victimization roles, but also on recognition and intervention when an employee may be bullied or bullying someone else.

The aspects of personality, stress, and counterproductive workplace behaviors are all deeply intertwined in the workplace and feed off of one another to either enhance workplace productivity or, much more often, be a detriment to it. Although the use of personality testing in hiring practices is widespread, companies should also focus their efforts on using those results throughout the employee’s time in the workplace to mediate and prevent negative behaviors and stress while promoting pro-organizational behaviors, workplace productivity, and efficiency.
References


