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Detachment and Antagonism as Moderators of Effects of Psychosocial Stressors on Emotional Distress in Daily Life

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ABSTRACT

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Psychological distress encompasses transdiagnostic symptoms of anxiety, depression, and anger, which all feature of emotional dysregulation and are often associated with interpersonal stressors. To understand these forms of distress as they occur in daily life, examination of both personality vulnerabilities and social situational context is needed. Interpersonal circumplex research and theory suggests human needs for agency and communion, and therefore others' cold-dominant behavior is highly aversive and likely to cause psychosocial distress, but degree and type of distress (e.g., anxiety versus anger) may depend upon personality. Detachment and antagonism are the most interpersonal of the pathological personality traits (Southard et al., 2015), and may amplify the effects of such stressors on distress, but little research has examined these traits beyond cross-sectional designs. The present study tested baseline pathological personality traits prospectively predicting distress across 15 naturalistic diary assessments of interpersonal stressors across five weeks, in a sample of 155 undergraduate college students. As hypothesized, within-person increases in perceived cold-dominant behavior predicted increases in distress (anxiety, depression, and anger). Regarding personality traits, high detachment prospectively predicted higher depression and anger in daily life, but had a unique effect on depression after accounting for shared variance among distress outcomes, as expected. Antagonism predicted higher downstream anxiety, depression, and anger, but uniquely predicted anger as expected, and depression unexpectedly. Contrary to hypotheses, personality did not amplify effects of stressors on distress in any

cross-level interactions. Overall, this study extends cross-sectional research by showing pathological interpersonal traits as risk factors for downstream transdiagnostic symptoms of depression, anxiety, and anger.

Keywords: personality traits, antagonism, detachment, interpersonal situation, psychological stress, depression, anger, anxiety

CHAPTER I

Introduction and Literature Review

Anxiety and depression are among the most prevalent psychiatric diagnoses, with substantial symptoms that overlap (Brown & Barlow, 2009). Negative emotions are transdiagnostic – occurring across anxiety and mood disorder categories – representing a common core of psychological distress. Recent formulations include anger as a transdiagnostic symptom which can have detrimental effects on functioning (Cassiello-Robbins & Barlow, 2016), suggesting the need to examine anger in conjunction with anxiety and depression. Diagnoses rooted in anxiety (e.g., generalized anxiety disorder [GAD], social anxiety disorder, panic disorder), depression (e.g., major depressive disorder [MDD], persistent depressive disorder [PDD]), and anger (e.g., intermittent explosive disorder [IED]) have been associated with distress and impairment in psychological, relational, occupational, and physical domains (Dougherty et al., 2014; Goldney et al., 2000; Goldstein-Piekarski et al., 2016; Hilton & Whiteford, 2010; Kessler et al., 2006; McCloskey et al., 2010; Moussavi et al., 2007; Russ et al., 2012; Sareen et al., 2006). Even subclinical symptoms are linked to poorer functioning and outcomes, which highlights the importance of examining the mechanisms of psychological distress faced in daily life utilizing repeated measures in ecological studies (Barrett et al., 2013; Goldney et al., 2004; Martin et al., 1996; Spira et al., 2008).

Furthermore, both contextual situational stressors and personality traits may shape experiences of psychological distress in daily life. Through a social cognitive lens, negative emotional responses vary from person to person depending on how one appraises the situation. Social stressors are emotionally salient, and interpersonal theories

that conceptualize social behavior from an interpersonal circumplex framework (IPC; Gurtman, 2009; Wiggins, 1996) suggest that interactions thwarting human motives for agency (i.e., dominance) and communion (i.e., affiliation) are particularly likely to be aversive (Horowitz et al., 2006). Moreover, research has shown that personality traits interact with both interpersonal situations and psychological distress (Barnow et al., 2009; Beck et al., 2001; Bienvenu et al., 2004; Brezo et al., 2006; Jovanović et al., 2011; Nordahl et al., 2005). In particular, detachment (pathologically low extraversion characterized by social isolation and anhedonia; Holden et al., 2015) and antagonism (pathologically low agreeableness characterized by aggressive tendencies, assertions of dominance, and grandiosity; Holden et al., 2015) represent maladaptive personality traits. These are the most interpersonally oriented of the pathological traits and warrant closer examination (Southard et al., 2015). For example, Hopwood and colleagues, (2013) found that pathological variations of trait detachment were associated with beliefs indicating a lack of interest in relationships, mistrust of others, and interpersonal ambivalence, whereas antagonistic traits were associated with an inflated view of self as superior or special compared to others, attitudes facilitating antagonistic behaviors towards others, and concerns about being controlled by others. However, little is known about how detachment and antagonism predict within-person affective responses to interpersonal stressors in daily life. This study aims to clarify the moderating effect of detachment and antagonism on interpersonal stressors and feelings of anxiety, depression, and anger. First, I review relevant literature pertaining to distress, interpersonal stressors, and pathological personality traits.

Psychological Distress

Disorders Characterized by Distress

Psychological distress encompasses unpleasant emotions that influence one's functioning and impact well-being, including as anxiety, sadness, and irritability. When the demands of a stressor exceed an individual's ability to cope with the distress, a range of psychopathological symptoms may occur. Anxiety disorders, depressive disorders, and anger-based disorders represent pathologically severe manifestations of these emotions.

Anxiety

Anxiety is defined as a feeling of worry, unease, or nervousness and is often associated with perceived uncertainty. Anxiety disorders are more commonly diagnosed than any other group of psychological disorders and have an overall lifetime prevalence rate of 31.1% (National Institute of Mental Health, 2017). This group of disorders is characterized by excessive fear and anxiety due to a perceived threat combined with avoidance behavior, with specific disorders differentiated by the feared stimuli or situation. For instance, specific phobias encompass impairing anxiety or fear related to a specified object such as needles, insects, or heights. On the other hand, GAD focuses on excessive and uncontrollable worry related to a broad number of objects or domains. Other anxiety-related disorders such as agoraphobia, selective mutism, separation anxiety disorder, panic disorder, and social anxiety disorder vary in what the individual fears, but each share a common core component of negative affectivity and poor emotional regulation. Furthermore, anxiety, fear, and worry are components of obsessive-compulsive disorders, trauma or stressor related disorders, personality disorders (e.g.,

paranoid and avoidant), somatic symptom disorders, eating disorders, and mood disorders (e.g., major depressive disorder with anxious distress specifier).

Anxiety disorders have been linked to a plethora of negative physiological and psychological outcomes. Individuals who are diagnosed with an anxiety disorder are at increased risk for a co-occurring anxiety or mood disorder (Goldstein-Piekarski et al., 2016), maladaptive substance use (Merikangas et al., 1998), and medical illness (e.g., thyroid disease, gastrointestinal disease, arthritis, migraines; Sareen et al., 2006). Furthermore, even subclinical levels of chronic anxiety have been linked to sleep disturbance, poorer social functioning, and poorer role functioning (Spira et al., 2008). It is evident that when individuals experience anxiety, worry, or fear, there are corresponding negative impacts in a variety of domains, suggesting the importance of understanding the factors contributing to anxiety.

Depression

Depressive disorders feature the presence of sad or irritable mood, combined with changes in physiological and cognitive domains that impair functioning. MDD is the most well-known of this diagnostic category and entails a discrete period of at least two weeks of these distinct changes. It is the most commonly diagnosed depressive disorder, with a lifetime prevalence rate of 20.6% (Hasin et al., 2018) and a 12-month prevalence rate of 7% (American Psychiatric Association [APA], 2013). PDD is characterized by chronic (at least two years), lower intensity dysphoric affect and has a 12-month prevalence rate of 0.5% (APA, 2013). Other depressive disorders include disruptive mood dysregulation disorder (characterized by outbursts of anger) and premenstrual dysphoric disorder. This dysphoric affect may also present in bipolar II disorder and

trauma and stress related disorders, such as adjustment disorder and posttraumatic stress disorder (PTSD).

Depressive disorders are associated with a constellation of co-occurring psychiatric disorders and symptoms (e.g., anxiety, substance use, borderline personality disorder, and suicide; APA, 2013; Sartorius et al., 1996; Swendsen & Merikangas, 2000), chronic physiological diseases (Chapman et al., 2005; Moussavi et al., 2007), and impaired work functioning (Goldney et al., 2000). Even subclinical levels of depression have been linked to poorer work performance (Martin et al., 1996), increased suicidal ideation (Cukrowicz et al., 2011), poorer cognitive functioning (Sutter et al., 2012), and lower quality of life (Goldney et al., 2004). Overall, depression has been associated with dysfunction in a range of domains, making it imperative to not only examine treatments for depression, but also the antecedents that inform the context of the depression.

Anger

Anger is an emotion rooted in strong feelings of annoyance, hostility, or displeasure. Although there is no overarching diagnostic category for pathological anger, its presence is noted in the criteria of a range of disorders including mood, personality, and impulse-control disorders. The type of anger and how it is demonstrated varies depending on three dimensions: frequency, intensity, and duration (Fernandez & Johnson, 2016). IED (2.7% 12-month prevalence rate; APA, 2013) reflects the exemplar diagnosis for pathological anger; it is characterized by repeated angry, impulsive, and aggressive episodes disproportionate to the level of provocation, implying high frequency, short duration, and high intensity anger dimensions. In younger individuals (age 6 to 18), disruptive mood dysregulation disorder (2-5% six to 12-month prevalence

rate; APA, 2013) is distinguished by temper outbursts disproportionate to the situation and persistent anger or irritability most days, indicating short durations of intense anger combined with frequent, low intensity anger. Lower intensity anger (labeled irritability) is also present in anxiety, mood, and trauma-related disorders (e.g., GAD, MDD, PTSD; Cassiello-Robbins & Barlow, 2016).

Each of these anger-related disorders has been linked to negative health outcomes including increased risk for co-occurring psychiatric disorders, interpersonal (including familial) difficulties, functional impairment, and physiological health problems (Dougherty et al., 2014; Gross et al., 2002; Kessler et al., 2006; McCloskey et al., 2010; Merikangas et al., 2011; Mulraney et al., 2016; Pardini & Fite, 2010). Although anger in these disorders varies, it is an important clinical symptom that has been linked to a vast array of adverse outcomes. Even subclinical levels of anger (e.g., dimensional anger) have been linked to negative downstream effects in psychological, physical, and interpersonal domains. Individuals who experience anger in combination with anxiety, mood, or trauma disorders have shown greater symptom severity (Barrett et al., 2013; Cahill et al., 2003; Judd et al., 2013). Anger is also associated with increased risk for cardiac issues (Jiang et al., 2013; Suls & Bunde, 2005), hypertension (Everson et al., 1998), and stroke (Williams et al., 2002). Research has also shown that higher levels of anger were associated with increased experience of stress, increased use of avoidance to cope, and poorer physical and psychological wellbeing (Maan Diong et al., 2005). Clinicians tend to focus their attention on anger in a dichotomous way (e.g., whether an individual meets criteria for a disorder or not), but even outside of these categories, subclinical anger plays an important role in wellbeing.

Shift Towards Dimensional Conceptualization of Symptoms

The structure of the DSM-5 classifications assumes that each disorder (and similarly, each category) reflects a discrete clinical condition, which does not accurately depict and encompass their overlapping features as well as heterogeneity in etiology and symptomatology (Widiger & Gore, 2014). In fact, this issue has been a topic of significant debate as more clinicians and researchers recognize the limitations of this categorical method of diagnosis and conceptualization. One major limitation of this system is that these discrete categories do not account for the high rate of comorbidity, as evidenced by several epidemiological and clinical studies (Brown et al., 2001; Kessler, Chiu et al., 2005; Krueger & Markon, 2006; Maser & Patterson, 2002). Indeed, these studies contradict the current diagnostic system, in which comorbidity is treated as if it implies the existence of multiple, separate illnesses in a person.

One recently proposed approach for better accounting for the high rate of comorbidity among emotional disorders, such as depression and anxiety disorders, is the transdiagnostic perspective. This approach posits that higher-order dimensions such as neuroticism (i.e., behavioral inhibition or trait negative affectivity) explains the shared variance among many disorders (Brown & Barlow, 2009). As discussed, the high co-occurrence rate between anxiety and depressive disorders is notable, such that Brown et al. (2001) found as high as 55% of subjects with one anxiety or depressive disorder met diagnostic criteria for other anxiety or mood disorders; this percentage increased to 76% when examining the lifetime prevalence. Furthermore, both anxiety and depression have been linked to similar negative outcomes including increased rates of suicide attempts,

greater symptom severity, poorer psychosocial functioning, and poorer treatment outcomes (Bronisch & Wittchen, 1994; Brown et al., 1996).

Although much of the research on distress symptoms and negative affectivity centers on anxiety and depression, anger has been gaining greater attention. Not only is anger associated with both anxiety (Hawkins & Cougle, 2011) and depression (Judd et al., 2013), anger has predicted similar aversive outcomes as anxiety and depression, such as increased risk for suicidal ideation and behavior, greater symptom severity, and increased vulnerability to psychosocial dysfunction (Baron et al., 2007; Hawkins et al., 2014; Jakupcak et al., 2007). However, research on anxiety and depression has rarely incorporated anger, but it may be beneficial for researchers to incorporate anger in transdiagnostic research on distress.

Individuals who seek psychological treatment for anxiety, depression, or anger have some form of higher order factor(s) accounting for anxiety, depression, and anger. For example, MDD and GAD share diagnostic criteria including negative affectivity, sleep disturbance, fatigue, restlessness or agitation, and difficulty with concentration. Brown and Barlow (2009) argue that this factor is neuroticism or behavioral inhibition; Johnson et al. (2013) propose emotion-reactive impulsivity as the underlying factor; Clark and Watson (1991) posit negative affectivity is the common factor. Consideration of the extant empirical literature points to emotional dysregulation as the crux of psychopathology maintenance (Boswell, 2016; Cole et al., 2008; Mennin et al., 2005; Sloan et al., 2017). Treatments such as the Unified Protocol for Transdiagnostic Treatment of Emotional Disorders have been effective in reducing anxiety, depression, and anger symptoms (Barlow et al., 2017; Cassiello-Robbins et al. 2018; Farchione et al.,

2012) by targeting emotional dysregulation in general. Ultimately, the vast range of disorders characterized by anxiety, depression, or anger are encompassed by difficulties with emotional regulation and this is supported by a range of conceptual models. Thus, it is imperative for the field of psychology to shift towards a more transdiagnostic understanding of psychopathology to more effectively treat patients and target underlying pathology.

In addition to the high co-occurrence rate of anxiety, depressive, and anger-based disorders, many cases that do not fit neatly within the DSM-5 discrete diagnostic categories fall under “not otherwise specified” diagnoses, which are the most common diagnoses in clinical populations (Widiger & Edmundson, 2011). Furthermore, these discrete categories encourage clinicians to focus on whether or not an individual meets diagnostic criteria and researchers to ignore subclinical levels of symptoms, which glosses over the impact that lower intensity, momentary/fleeting, or short episodes of psychological distress have on wellbeing. Anxiety, depression, and anger are distinct, but overlapping forms of psychological distress, each associated with resulting negative outcomes even at subclinical levels (Barrett et al., 2013; Sartorius et al., 1996; Spira et al., 2008); researchers have begun to examine them as dimensional factors, allowing for a more nuanced and deeper understanding of how these emotions play out in the trajectory of wellbeing.

In summary, empirical data points to emotional distress or dysregulation as an underlying shared dimension of psychological distress as evidenced by the high co-occurrence rate of anxiety, depression, and anger symptoms in personality, mood, anxiety, and impulse disorders, as well as the similarities in aversive outcomes. Further,

these symptoms cause impairment at both clinical and subclinical levels. However, research is warranted to examine these symptoms in daily life, to further understand within-person variability of these dimensional forms of distress. Moreover, because humans are social creatures, emotional responses do not exist in a vacuum, but often take place in interpersonal contexts (Horowitz, 2004), suggesting the need to consider interpersonal contexts for these symptom dimensions.

The Interpersonal Situation

Emotions are highly dependent on interpersonal contexts or situations, which means that much of our stressors are interpersonal. The interpersonal situation is defined as "the experience of a pattern of relating self with other associated with varying levels of anxiety (or security) in which learning takes place that influences the development of self-concept and social behavior" (Pincus & Ansell, 2003, p. 210). This idea is based on interpersonal theory (Sullivan, 1953), which postulates that individuals engage in social interactions with the (typically) mutual goal of satisfying biological needs (e.g., food, safety, shelter) and security (e.g., self-esteem, functioning without anxiety). In particular, the goal of security underscores the importance of fulfilling one's fundamental *interpersonal* needs for agency (i.e., status, power, dominance, assertion, or significance) and communion (i.e., belonging, affiliation, connection; Horowitz et al., 2006). Interpersonal situations that fulfill this goal of security, such as through social support, self-efficacy, or self-esteem, have been demonstrated to positively predict wellbeing (Karademas, 2006; Paradise & Kernis, 2002; Thoits, 1985). This process of interrelating begins at birth, shifting and reshaping throughout the life span, to form complex concepts of between-person dynamics or behaviors (e.g., social etiquette, companionship,

empathy, gender roles) and self-concept, which are reinforced (both positively and negatively) through the sense of security or anxiety felt during interpersonal experiences.

Interpersonal Circumplex Model

Research on the impact of interpersonal situations led to the development of the IPC model. The IPC is a geometric model used to conceptualize individual differences in interpersonal functioning (Gurtman, 2009; Wiggins, 1996). This model purposes two orthogonal axes (agency and communion) that inform an individual's self-concept and how they relate to others. Along the agency dimension, high agency involves dominant, assertive, or powerful behavior, whereas low agency is reflected in yielding, submission, or passivity. On the communion dimension, high communion entails affiliation, warmth, friendliness, and social proximity, while low communion involves coldness or maintaining social distance. Individual behavior may be seen as simply high or low on one dimension, but neutral on the second dimension (e.g., pure dominance that is neither warm nor cold). At other times, a combination of these two dimensions may appear (e.g., warm-submissive). Indeed, Cohrs et al. (2012) found that individuals tend to evaluate and categorize others on two dimensions, warmth and competence, which map on to the IPC domains of agency and communion.

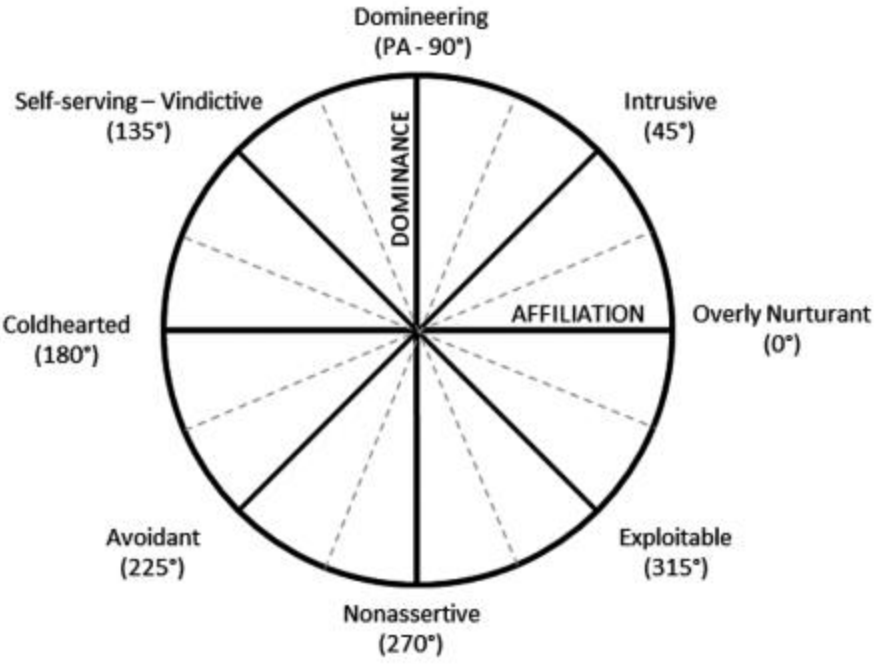

Figure 1. The interpersonal circumplex.

Aversive Psychosocial Situations

In interpersonal situations or interactions, many types of social behavior may be aversive and elicit distress. However, on average, particular classes of interpersonal behavior may generally elicit more distress than others. Specifically, behavior that is both extremely cold (rather than affiliative) and extremely agentic or dominant (rather than yielding) may cause the most pronounced negative emotions for others. Interpersonal theory posits universal human needs for both agency and communion, although individuals may vary on their relative importance (Horowitz, 2004). Therefore, experiencing others' behavior toward the self as cold-dominant may thwart both of these important needs during the interpersonal situation. Furthermore, the theory of interpersonal complementarity supports this idea. Complementarity is the principles that

in social situations, affiliation invites similar levels of affiliation, whereas dominance invites submission and vice versa (Carson, 1969). Thus, another's dominance behavior would evoke submissiveness (which can limit self-efficacy and self-esteem), and another's cold or quarrelsome behavior clashes with the goal of anxiety-free, secure relationships and social connection.

The idea that cold and dominant behaviors are particularly aversive to others is supported by studies on both intrapersonal and interpersonal reactions to various forms of cold-dominant behavior. For instance, researchers have examined the Dark Triad of personality (narcissism [excessive grandiosity, entitlement, and self-admiration], Machiavellianism [manipulativeness], and psychopathy [lack of empathy]), which are often considered highly aversive traits, in relation to the interpersonal circumplex; these traits may map onto the cold-dominant (psychopathy and Machiavellianism) and dominant (narcissism) sections of the interpersonal circumplex (Jones & Paulhus, 2011; Rauthmann & Kolar, 2013). Furthermore, perceptions of other's cold-dominant behavior predicted distrust more than any other combination of agency and communion, which is incongruent with the goal of security (Gurtman, 1992). Another example of cold-dominant behavior is bullying in the workplace, which has been linked to organizational toxicity, feelings of apprehension when interacting with others, greater emotional distress, and decreases in self-esteem (Lutgen-Sandvik & Arsht, 2014). Ethnic/racial discrimination is another example of cold-dominant behavior; these experiences have been perceived as harassing, exclusionary, and unfair, predicting psychological distress (Broudy et al., 2007). Thus, one would expect experiencing others' behaviors as cold-

dominant to be particularly aversive, and thus likely to elicit distressing states such as anxiety, depression, and anger in daily life.

Interpersonal situations are particularly important for understanding states of emotional distress, as stressors are encountered daily and are often rooted in interpersonal stressors. Cold-dominant social behavior is likely to elicit distress states such as anxiety, depression symptoms, and anger in daily life. However, because individuals respond differently to a given stressor, we might expect that some individuals react to cold-dominant behavior with greater distress than others. Thus, identifying those who respond more aversively in daily life should be a primary goal of research. Pathological personality traits (maladaptive variants of personality traits) represent one such factor that may influence the differential emotional responses to interpersonal stressors. That is, pathological personality traits may interact with interpersonal stressors to influence emotional responses. In particular, the maladaptive forms of trait detachment and trait antagonism are arguably the two most interpersonally oriented traits.

Pathological Variants of Personality Traits

Personality pathology represents another domain of psychopathology which has been conceptualized as dimensional. A limitation of the current diagnostic system surrounds the high comorbidity rates among personality disorders, which highlights the importance of understanding personality dimensionally. Specifically, researchers have demonstrated that individuals often meet diagnostic criteria for multiple personality disorders (Clark, 2007; Lilienfeld et al., 1994; Livesley, 2003; Trull & Durrett, 2005), suggesting that personality difficulties do not often fit neatly into the extant categories.

Historically, the most widely studied model for normal personality traits is the Five Factor Model (FFM; McCrae & Costa, 1987) which posits personality is determined by five dimensional domains of personality: *neuroticism, extraversion, agreeableness, conscientiousness, and openness to experiences*. These traits assess the "normal" range of individual differences in personality, rather than disorders per se, but nonetheless predict both clinical and subclinical levels of anxiety, depression, and anger symptoms. For example, high neuroticism is predictive of a wide range of psychiatric symptoms and disorders including anger, MDD, GAD, and obsessive-compulsive disorder (Bienvenu et al., 2004; Watson & Clark, 1984). Extraversion is negatively associated with suicide risk (Brezo et al., 2006), and both subclinical and clinical levels of depression (Hill & Kemp-Wheeler, 1986; Hirschfeld et al., 1983). There is also an association between low agreeableness and anger symptomology (Jensen-Campbell et al., 2007; Jovanović et al., 2011; Martin et al., 1999). Consideration of the constellation of personality traits from a dimensional perspective allows for a more global and precise understanding of how aspects of personality function adaptively in certain situations and maladaptively in other situations.

Beyond the normal range of personality, even the field of personality disorder research has shifted towards understanding pathological personality as dimensional. Factor analyses have yielded five core constructs characterized by maladaptive extremes of personality. These include *negative affectivity* (clinically high variants of neuroticism including anxiousness, emotional lability, and perseveration), *detachment* (maladaptive low extraversion combined with suspiciousness, withdrawal, intimacy avoidance, and anhedonia), *antagonism* (clinically low agreeableness mixed with manipulativeness,

deceitfulness, hostility, callousness, and attention seeking), *disinhibition* (maladaptive low conscientiousness including irresponsibility, impulsivity, and risk taking), and *psychoticism* (pathologically high openness associated with unusual beliefs and perceptual experiences; Gore & Widiger, 2013; Wright et al., 2012). These dimensions reflect the key constructs of the Personality Inventory for Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition (PID-5; Krueger et al., 2012). Researchers investigating the PID-5 traits demonstrated dysfunctional beliefs and general interpersonal impairment related to these domains (Hopwood et al., 2013; Wright et al., 2012). Shifting towards a dimensional model may aid in conceptualizing symptom constellations more parsimoniously and reliably, moving away from stigmatizing perceptions of personality disorders by locating adaptive and maladaptive traits on the same dimensions, and clarifying the symptom overlap and boundaries between disorders. Overall, every individual falls somewhere along the dimensions of traits in unique combinations. However, specific pathological personality traits (maladaptive variants of the FFM dimensions) or combination of these traits predict psychological dysfunction and distress.

Maladaptive personality variants may include schemas about self and social situations (Barnow et al., 2009; Beck et al., 2001; Nordahl et al., 2005), and therefore bear relevance to interpersonal contexts. Detachment and antagonism, in particular, are the most interpersonally orientated personality traits, whereas negative affectivity, disinhibition, and psychoticism are considered intrapsychic traits (Ansell & Pincus, 2004; De Raad & Perugini, 2002; Holden et al., 2015; Southard et al., 2015). Therefore, attempts to understand how pathological personality traits predict affective responses to

psychosocial stressors should incorporate detachment and antagonism as interpersonal aspects of personality—the focus of the present study.

Pathological Trait Detachment

The dimension of detachment, representing the pathological variant of low extraversion from the FFM, encompasses aspects of avoidance of interpersonal interactions and restricted affective experience and expression (e.g., limitations in hedonic capacity; Krueger & Markon, 2014). Subfacets of this dimension include withdrawal, anhedonia, and intimacy avoidance (Krueger et al., 2012; Wright et al., 2012), and they generally map onto cold or cold-submissive regions of the IPC (Southard et al., 2015; Wright et al., 2012). Detachment and some of these subfacets have correlated with negative outcomes such as psychopathy and depressive symptoms (Few et al., 2013; Rappaport, Moskowitz, and D'Antono, 2014; Strickland et al., 2013). Additionally, the cold-submissive region of the IPC has also been linked to anxiety (Wiggins & Broughton, 1991). Consequently, one might anticipate that trait detachment predicts both anxiety and depression in daily interpersonal contexts, which requires examination. Pathological trait detachment has been shown to be negatively associated with affiliative humor styles (benign humor used to enhance relationships with others; Zeigler-Hill et al., 2016) and positively associated with avoidance of social interactions (Southard et al., 2015). Individuals with a detached personality style tend to feel uncomfortable around others, view self as introverted and distant, and attempt to limit social interactions with others (Southard et al., 2015). Furthermore, a detached personality style is linked to beliefs reflecting a lack of interest in relationships, mistrust of others, and interpersonal ambivalence (Hopwood et al., 2013). From an interpersonal theory standpoint,

detachment is characterized by denial of the interpersonal goals of significance (status) and belonging (love) towards both oneself and others. Consequently, social interactions are unrewarding and may perpetuate a cycle of social avoidance.

Although detachment is rooted in the extraversion-introversion spectrum, the additional subfacets detachment encompasses distinguish it from the FFM extraversion, thus representing overlapping but non-redundant constructs. However, they share many similarities with the FFM extraversion spectrum and have demonstrated a strong negative association (r = -.47; Griffin & Samuel, 2014; Watson et al., 2013). Introversion is not pathological, but nonetheless has been linked to several risk factors (e.g., loneliness, maladaptive schemas; Saklofske & Yackulic, 1989; Thimm, 2010) and negative psychological outcomes, including psychiatric morbidity, residual effects of anxiety, and poorer prognosis for those with both unipolar and bipolar depression (Hamid, 2004; Heerlein et al., 1998). Eysenck (1967) argued that those low in extraversion would operate from the behavioral inhibition system, a regulation system rooted in avoidance and movement away from unpleasant stimuli. Papousek et al. (2018) found that individuals with high trait detachment tended to demonstrate greater activation of brain systems associated with withdrawal/avoidance motivation. This avoidance system is correlated with rejection sensitivity (Yanagisawa et al., 2011), which is rooted in internalizing emotions such as anxiety, fear, and depression (Muris et al., 2005; Pinto-Meza et al., 2006). From this framework, pathological trait detachment is associated with internalizing behaviors and disorders (e.g., social anxiety disorder, isolation, depression; Kotov et al., 2010; Ruiz et al., 2008; Samuel & Widiger, 2008; Saulsman & Page, 2004; Wright et al., 2015). Thus, we would expect it to predict anxiety and depression

symptoms in particular in naturalistic social interactions in daily life, although this remains unknown because most of the research has been cross-sectional.

Pathological Trait Antagonism

The antagonism trait dimension captures problematic low agreeableness, such as putting oneself at odds with others (e.g., exaggerated sense of self-importance with expectations for special treatment, callous antipathy, unawareness of other's needs; Krueger & Markon, 2014). Per the PID-5, antagonism includes subfacet scales of manipulativeness, deceitfulness, and grandiosity (Krueger et al., 2012). Kuppens (2005) found high antagonism was positively correlated with anger proneness. Researchers have demonstrated that trait antagonism is associated with psychopathy, sharing facets of coldness and callousness (Blackburn & Maybury, 1985; Jones & Paulhus, 2011; Salekin et al., 2005; Strickland et al., 2013). Furthermore, trait antagonism is associated with a desire to control others and problematic drug use (Few et al., 2013; Zeigler-Hill et al., 2017). These findings are consistent with research indicating that antagonism reflects pure dominance and cold-dominance on the IPC (Southard et al., 2015; Williams & Simms, 2016; Wright et al., 2012). Research on highly dominant traits, such as trait narcissism and psychopathy, has demonstrated less consistent, near-zero, or even negative associations with depression and especially anxiety symptoms (Frick et al., 1999; Lau et al., 2011; Lovelace & Gannon, 1999). One notable example of this is the research by Sargeant and colleagues (2011) that found that psychopathic traits were associated with distress tolerance. On the other hand, narcissism is associated with mixed associations between anxiety and depression, which may reflect differential emotional

responses based on type of narcissism (i.e., vulnerable narcissism versus grandiose narcissism; Miller et al., 2007).

Individuals with clinical trait antagonism tend to perceive themselves as unkind and unsympathetic and endorse beliefs reflecting an inflated view of self (as superior or special compared to others) and concerns about being controlled by others (Hopwood et al., 2013). From the interpersonal theory, trait antagonism is characterized by granting significance (status) to self, but not belonging (love), while also denying these two interpersonal goals to others. Consequently, trait antagonism has been associated with increased externalizing behavioral problems (e.g., anger), poorer relationship quality, and increased peer conflicts (Laursen & Richmond, 2014; Sleep et al., 2018). Thus, one might expect antagonism to prospectively predict symptoms of anger in daily social contexts, although this remains to be examined.

Extant research has thus conceptualized trait detachment and trait antagonism as interpersonal aspects of personality dysfunction. Indeed, trait detachment corresponds with cold-submissive behavior, whereas trait antagonism corresponds with cold-dominant behavior. These pathological personality traits influence motivational styles, such that detached individuals generally avoid/withdraw and antagonistic individuals tend to approach (Papousek et al., 2018). Individuals who are detached may avoid social interactions out of discomfort (anxiety) or feelings of anhedonia (depression), and those with antagonistic styles may be more susceptible to anger, a motivating and approach emotion. Given that humans are social beings, interpersonal stressors are inevitable, but the extent to which they elicit these distress symptoms may interact with these pathological personality traits, requiring further study.

Moderating Role of Pathological Personality Traits

How an individual reacts emotionally to these interpersonal situations may be governed in part by personality, which plays a role in the unique ways an individual perceives and conceptualizes situations. For instance, a socially anxious (i.e., high neuroticism) person who perceives his/her coworker's work performance critiques as a display of coldness or hostility will likely experience greater psychological distress than an individual who has low neuroticism. The interpersonal situation goes hand in hand with appraisal theory (Lazarus, 1991), which posits that emotions depend on one's evaluation or appraisal of events and the emotional response varies from person to person. Appraisals of situations are dependent on personality traits (Gallagher, 1990; Smith & Pope, 1992). Combined, these ideas echo interpersonal theory. If an individual evaluates another's social behavior as assertive and confident, the emotional response might be positively valenced. On the other hand, if this individual evaluates another's behavior as demanding and pushy (too dominant or assertive), the response may be more negatively valenced (e.g., anger, anxiety). Interpersonal theory posits that, over time, personality shapes perceptions of social interactions and concomitant emotional reactions; these reactions in social contexts, in turn, reinforce and maintain personality traits. Given that detachment and antagonism comprise the two most interpersonally focused pathological personality traits, they likely shape and inform how social situations are perceived or interpreted. Thus, we might expect that these traits may moderate (e.g., amplify) the distress responses following interpersonal stressors.

Models Accounting for Personality Traits

Several well-known models attempt to account for distress symptoms as a result of factors of person (e.g., personality), situation (e.g., interpersonal situations), and their interaction. One such model is the diathesis-stress model (Meehl, 1962) which theorizes that psychological disorders and their trajectories are a result of the interaction between predisposed vulnerabilities and stress caused by life experiences. Thus, when the vulnerabilities and stressors interact and exceed a threshold, a psychological disorder may result. Personality traits are one group of vulnerability factors that predict psychological distress, and research has shown this personality-distress pathway is moderated by maladaptive schemas about agency/dominance and communion/affiliation (e.g., mistrust, social isolation, subjugation, self-esteem; Eberhart et al., 2011; Franck et al., 2016; Swearer & Hymel, 2015). The accompanying schemas are not only a conceptual framework in which information is organized, but also the basis for how situations are perceived. Adaptive variants of personal traits, such as would be implied by low detachment and low antagonism, are likely to shape positive approach schemas/cognitions (e.g., “others will support me”; “if I need help, I only have to ask”), constituting protective factors that may confer resilience in aversive interpersonal interactions. In contrast, high levels of detachment and antagonism are associated with maladaptive schemas (e.g., “others will take advantage of me if I’m too nice,” “I cannot trust others because they will hurt me,” “I have to be better than others”; Sava, 2009), and thus, when others display cold-dominant behaviors that might threaten agency and communion; such individuals may be particularly sensitive to such threat perceptions and subsequent distress. In any case, the diathesis-stress model implies that pathological

personality traits related to interpersonal styles would predispose individuals to stronger emotional reactions to interpersonal stressors.

Another model that accounts for both the interpersonal and intrapersonal aspects of personality is the cognitive-affective personality system (CAPS; Mischel & Shoda, 1995), which posits that behavior is a result of characteristic patterns of response to perceptions of specific situation, rather than the result of a global personality trait. In fact, the CAPS model suggests that personality is stable or consistent *not* in behavior (because behavior fluctuates from moment to moment), but rather in the cognitive-affective links in one's mind. The CAPS model follows the framework of *if… then…*for situation-response (behavior or affect) link. Specifically, if an individual perceives a situation as A, then affective or behavioral result X will occur; but if situation B is perceived, then the individual will respond with Y. For instance, an individual who trends toward anger does not likely exhibit anger in every situation; rather, *if* the person perceives a situation as involving disrespect or thwarting agentic goals, *then* she or he will characteristically and predictably respond with anger or aggression. This pattern of stable variability across situations is described as a *behavioral signature* of one's personality. Additionally, there are five cognitive-affective units of personality, which are the aspects of individuals that allow for stable interaction with the environment, influencing the situation-response relationship. This includes encoding strategies (categorization of stimuli), beliefs and expectations (i.e., about consequences of behavioral responses), goals and values, affective responses (feelings and emotions linked to physiological responses), and competencies and self-regulatory strategies. Overall, however, the CAPS model emphasizes that understanding individuals and personality differences requires examining

how different individuals display unique characteristic reactions to the same classes of situational stimuli (e.g., extent to which one might respond to cold-dominance with anger), and that such differences in situational reactions are explained by and constitute personality differences.

Fournier, Moskowitz, and Zuroff (2008) investigated how interpersonal dispositions (behavior of an individual across the mean level) and signatures (organization of behavior of an individual around the mean level) mapped onto the IPC; they found stability in both the interpersonal dispositions and signatures, even after accounting for situational factors. Furthermore, they found that individual dispositions and signatures generally aligned with the agency and communion dimensions, lending further support to the IPC model and norms of complementarity. These researchers also found some variance in behavior deviating from the IPC model. One proposed possibility for this phenomenon is differences in the cognitive-affective units of beliefs and competencies. For example, an individual may have a belief that establishing a high level of agency requires them to be quarrelsome (i.e., a cold behavior), and thus their sense of agency is linked to coldness in their interpersonal schema. Similarly, some individuals may not have the interpersonal skills/competence to maintain affiliation without engaging in submissive behaviors, and therefore confound affiliation with submissiveness in their behavior. Goals and values may also play a role in how one navigates interpersonal situations, such that the desire to achieve a goal may require an individual to behave dominantly even in a situation where submissiveness is expected. At any rate, Fournier et al.'s (2008) work integrating the CAPS model with IPC dimensions of agency and

communion provides further reason to examine the relevance of interpersonal traits of detachment and antagonism to affective reactions to interpersonal situations.

Detachment as a Moderator

Both the diathesis-stress model and CAPS model highlight the importance of interpersonal personality traits on the interpersonal situation-response relationship. In particular, the focus of this study is on distress reactions to perceived cold-dominant behavior, and how distress is likely amplified in individuals high in detachment and antagonism. Given the idea that cold-dominant behaviors are particularly aversive, they are likely to predict higher distress (anxiety, depression, and anger) in general, on average. Pathological levels of detachment in particular may function as a moderator in that relationship. One possibility is that high levels of detachment will amplify the effects of perceiving greater cold-dominance in others' behavior on all forms of distress (anxiety, depression, anger). However, Papousek et al. (2018) found those with detached personality styles are likely to respond via avoidance motivations, as indicated by greater activation in the right frontal brain region, which has historically been associated with the behavioral inhibition/avoidance system (Rutherford & Lindell, 2011; Sobotka et al., 1992). Furthermore, research on pathological detachment has been linked to internalizing symptoms (i.e., anxiety and depression), rather than externalizing symptoms (i.e., anger; Sleep et al., 2018). This would suggest that trait detachment is likely to amplify the effects of cold-dominant stressors on anxiety and depression symptoms in particular.

Several reasons suggest that those high in detachment will have stronger depression and anxiety responses for cold-dominant situations. In the IPC model, high detachment is a cold-submissive trait, which maps onto feelings of anxiety and

depression, revealing the role of trait detachment on internalizing symptomology (Pearson et al., 2010; Russell et al., 2011). From the diathesis-stress model conceptualization, trait detachment is a vulnerability factor for anxiety and depression. In cross-sectional data, Wright et al. (2012) found that detachment was correlated strongly with depressivity ($r = 0.54$) and moderately with anxiousness ($r = 0.29$), but only weakly with hostility ($r = 0.21$). Thus, I anticipate that detachment will amplify effects of depression and anxiety, but not anger. These cold-dominance situations, which already generate feelings of distress, in conjunction with the vulnerability factors would likely magnify feelings and anxiety and depression.

Another explanation may come from the CAPS model, such that high-detachment individuals may possess an *if… then…* behavioral signature in which encountering perceived cold-dominant behavior results in higher situational anxiety and depression, consistent with research findings by Rappaport et al. (2014). One example of this comes from the literature on avoidant personality disorder, which is strongly correlated with detachment (Reichborn-Kjennerud et al., 2017). Research in the avoidant personality disorder literature supports the *if… then…* situation-personality relationship on depression. For example, Bowles et al. (2013) conducted an experiment in which individuals with avoidant features, borderline features, or no personality disorder features were put in supportive versus non-supportive (e.g., criticism) situations. They found that in situations simulating criticism messages, those with avoidant features, but not the other groups, felt more negatively about themselves, which may correspond to feelings of depression or anxiety, when compared to those receiving supportive messages. In other words, impact of trait detachment results in differing emotional reactions and intensity

based on the situational factors. However, there is a gap in literature about trait detachment influencing situation on feelings of anxiety. It is important to note that anxiety has been linked more closely to the dimension of negative affectivity than to detachment, but examination of the literature on PID-5 detachment and FFM neuroticism (linked to anxiety) indicate a significant effect size of 0.28 (Góngora & Castro Solano, 2017) between these variables, which warrants examination of detachment as a moderator.

Antagonism as a Moderator

In the same vein, pathological trait antagonism likely moderates the relationship between perceived cold-dominant behavior and psychological distress. When considering high trait antagonism from an evolutionary perspective, high antagonism may allow for greater goal attainment (e.g., food, protection, safety). However, when this motive is challenged, such as when cold-dominant behavior is perceived, it may be experienced as a threat to one's social position or as blocking resources and future goal attainment. This may result in greater feelings of anger, which is a motivating and approach-oriented emotion (Carver & Harmon-Jones, 2009; Rutherford & Lindell, 2011; Yan & Dillard, 2010), than in those who are more agreeable. From the IPC model framework, antagonism is considered a high dominance trait, often linked to anger, which invites others' submissiveness. Similarly, this allows for goals of biological needs and self-esteem needs to be achieved. Indeed, Kuppens (2005) found that high antagonism correlated positively with anger proneness. To a person high on the cold-dominant trait of antagonism, others' cold-dominant would likely fail to complement their own agentic

goals, threatening their own sense of self and thereby evoking anger as an energizing, approach-oriented emotion motivating efforts to re-establish one's agency.

Conceptualization of this interaction between personality, interpersonal stressors, and distress from the diathesis-stress model would point to trait pathological antagonism as a vulnerability factor to greater distress, specifically feelings of anger in particular (r = 0.42 with hostility; Wright et al., 2012). Other emotions linked to distress (i.e., anxiety and depression) load more strongly onto trait negative affectivity (r = 0.65 with the anxiousness facet of the PID-5, which is similar to, but not identical with generic anxiety symptoms) and detachment (r = 0.54 with the depressivity facet of the PID-5, which is similar to, but not identical with generic depression symptoms) than to antagonism (r = 0.04 with anxiousness and r = -0.01 with depressivity; Wright et al., 2012). Thus, I anticipate antagonism will amplify effects of situational stress on anger, but not anxiety or depression.

The CAPS model might also explain the impact of high antagonism on this relationship. For example, trait antagonism has been strongly correlated with narcissism (r = 0.64; Hopwood et al., 2012) and researchers have demonstrated that individuals with trait narcissism demonstrate greater anger in situations where they receive negative feedback or are provoked, which pose a threat to their ego (Barry et al., 2006; Reidy et al., 2010). Given that narcissism is a dominant trait, the study lends support to the hypothesis that in interpersonally threatening situations, trait dominance moderates the experience and intensity of anger. Taken all together, these models and theories provide possibilities for why detachment and antagonism traits may amplify certain emotions in perceived uncomfortable situations of cold-dominance.

Multilevel Modeling to Predict Psychological Distress

In order to examine these moderations and delve deeper into understanding the differences between individuals in how they respond affectively to interpersonal situations, it is important for data to be collected naturalistically and in multiple contexts. A plethora of research supports individual response differences to aversive situations, as influenced by personality, mood, and interpretation of events (Barrett & Pietromonaco, 1997; Howes & Hokanson; 1979; Larsen & Ketelaar, 1991; Wenze et al., 2009). To properly study individuals in daily life, statistical models must account for between-subject differences in psychological distress and particularly in response to stressors. Some individuals will be more prone to experiencing anger in interpersonal situations than others, and other individuals may react with greater anxiety or depression. From a statistical framework, there will likely be individual differences in average levels of daily symptoms (intercepts) as well as individual differences in situation-symptom relationships (slopes), which highlights the need to use nested data and analyze the data through multilevel modeling (MLM). MLM is a statistical approach that allows for testing random effects (e.g., variance) in both participants' average levels of a given construct, as well as in within-person relationships between constructs and has been used to examine diary study data (Nezlek, 2012). For example, MLM permits testing whether individuals vary in their levels of anger, as well as in the slope of the relationship between perceived cold-dominance and anger.

Additionally, it is expected that there will be intrapersonal variation in data, which requires a repeated-measures or prospective design as well as an emphasis on understanding variability over time within each person. Research has shown that across

social interactions, manifestations of personality traits are generally stable, but also demonstrate stable patterns of variation similar to behavioral signatures (Mehl & Pennebaker, 2003; Wright & Simms, 2016). These differential responses may be due to a variety of factors such as poor sleep, hunger, illness, ongoing interpersonal issues, psychiatric disorders, and more. One hallmark example of this variability is in individuals diagnosed with borderline personality disorder and emotional lability. The extant research indicates that individuals with borderline personality disorder have markedly shifting anger and anxiety responses at different time points as well as fluctuations around the IPC (Côté et al., 2012; Russell et al., 2007; Schoenleber et al., 2016). Regardless of the specific factors, many of these are risk factors for negative emotional outcomes which highlight the importance of capturing real-life, in-the-moment experiences. In other words, diary methods or ecological momentary assessments may allow for a more externally valid way to evaluate and capture the nuances of interpersonal stressors on emotional responses in the flow of daily life, both within and between subjects. MLM provides a means to use individual differences such as pathological traits as a higher-level variable to moderate lower-level within-person relationships between perceived cold-dominance and distress (i.e., "cross-level interaction").

The Present Study and Hypotheses

The extant literature on pathological interpersonal traits of detachment and antagonism as risk factors for distress symptoms has largely relied on *cross-sectional* designs, neglecting *prospective* prediction of symptoms as well as personality-situation interactions. Given the impact of interpersonal stressors on negative outcomes of anxiety,

depression, and anger, even at subclinical levels, as well as the relevance of personality to distress, further research is warranted to examine personality-stressor relationships in daily life. The current study aims to examine the unique impact of trait detachment and trait antagonism on multiple forms of distress (anxiety, depression, and anger) experienced in response to these interpersonal stressors. This study focuses on the effect of perceived cold-dominance behavior in social interactions, which is arguably the most aversive quadrant of the IPC. This study aims to examine pathological traits, cold-dominant stressors, and their interaction in predicting multiple forms of distress (anxiety, depression, and anger) in daily life. Furthermore, research on the CAPS model supports the idea of behavioral signatures and differences in how personality traits present in different social contexts, which highlights the importance of using real-time, naturalistic methodology to capture the variance in day-to-day interactions and repeated measures to examine the fluctuations over time. The present study involved a baseline assessment of personality traits followed by diary reports of specific interpersonal stressors three times weekly for four to five weeks.

Hypotheses of Present Study

Hypothesis 1a

Given interpersonal theory's assumption of relatively universal general motives for agency and communion (Horowitz et al. 2006), I expect that perceptions of others' behavior in specific interactions as cold-dominant will predict negative emotional responses. Specifically, I hypothesized a main effect of perceived cold-dominance behavior on anxiety, depression, and anger. I expected this relationship even after controlling for gender, which has been associated with differentiated emotional and

behavioral responses (APA, 2013; Ross & Mirowsky, 2008). For instance, Fischer, Rodriguez Mosquera, van Vianen, and Manstead (2004) examined gender differences in a cross-cultural sample and found that in Western respondents, gender and social roles impacted frequency of antagonistic expression. Specifically, they found that Western women in higher status and/or social positions tended to report increased antagonism. Additionally, past research has indicated that men tend to cope with psychosocial stressors different than women (Matud, 2004). Similarly, Romero and Alonso (2019) found that women tended to score lower on trait antagonism. On the other hand, it is important to note that in the past few decades, there have been significant gender role changes, which also encompasses expectations and norms around emotional expression, resulting in diminished gender effect (especially in university student samples; Felsten, 1998; Lengua & Stormshak, 2000; Stern et al., 1993). Given the contradictory findings on gender effects, I plan to run analyses that both include and exclude gender as a covariate to compare the effects.

Hypothesis 1b

In addition to this, I hypothesized that the magnitude of these positive relationships between perceived cold-dominant behavior and psychological distress (anxiety, depression, and anger) will vary significantly between subjects (random slopes). Thus, some individuals may experience greater activation of distress than others.

Hypothesis 2a

I predicted a main effect of personality traits on psychological distress. Specifically, I anticipated that higher levels of detachment will prospectively, positively predict the internalizing emotions of anxiety and depression.

Hypothesis 2b

In the same vein, I predicted that higher levels of antagonism will positively predict subsequent anger, which is a motivating, agentic, and approach-oriented emotion associated with hostility and aggression (Ramirez & Andreu, 2006). Effects of these traits on other distress variables were considered exploratory.

Hypothesis 3a

Next, I predicted that the relationship between interpersonal stressors and psychological distress will be moderated by personality traits. I hypothesized that detachment will amplify the positive effects of perceived cold-dominance in others' behavior on anxiety and depression.

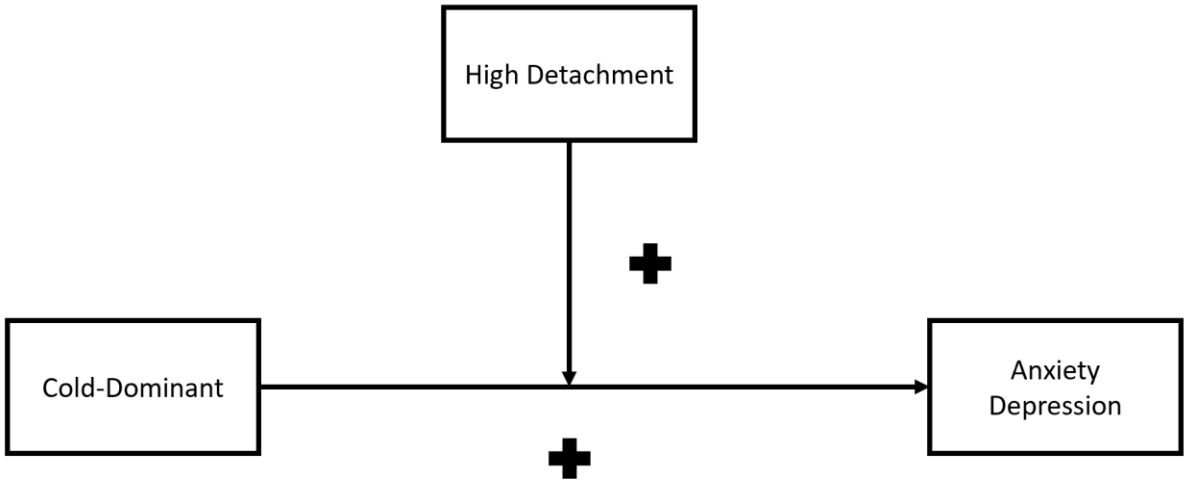

Figure 2. Proposed model diagram of the effect of psychosocial stressor on anxiety and depression symptoms depending on trait detachment.

Hypothesis 3b

Similarly, I anticipated that higher antagonism will amplify positive effects of perceived cold-dominant situations on anger.

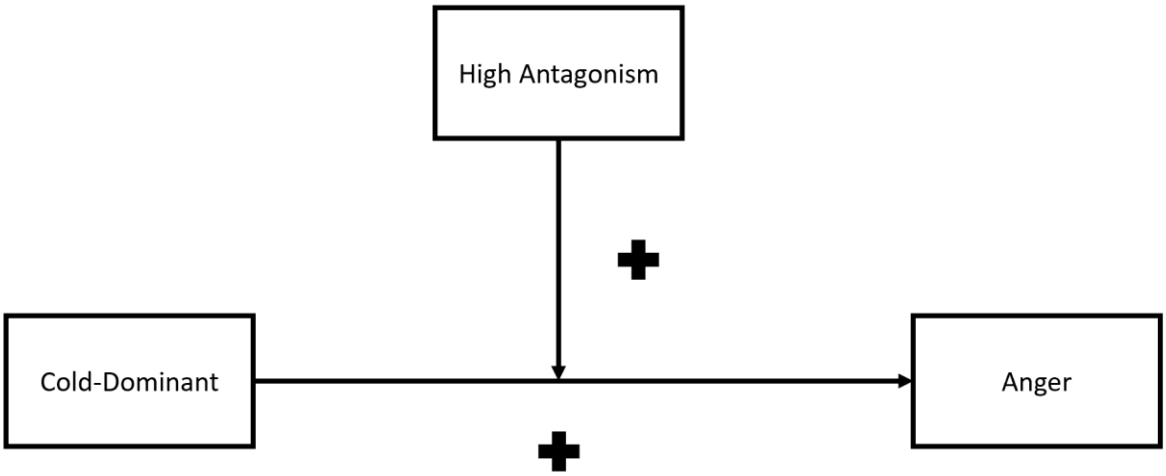

Figure 3. Proposed model diagram of the effect of psychosocial stressor on anger symptoms depending on trait antagonism.

I hoped to extend the literature on negative emotions in daily life as well as pathological traits, by utilizing a naturalistic, externally valid methodology to clarify the relationship between perceptions of cold-dominance behaviors and the resulting emotional consequences in a prospective study. It was my hope that this study will shed light on how pathological personality traits serve as risk factors for downstream distress states, which may have implications for clinicians working with those high in such traits.

CHAPTER II

Method

Sample and Procedure

Participants

Participants included 155 undergraduate college students (76.3% identified as female) recruited through the research subject pool at Seattle Pacific University. Students participated for course credit. Given expected attrition in longitudinal studies, I only included students who completed a minimum of three daily surveys. Participants ranged in age from 18-31 years (M = 19.52, SD = 2.07) and were ethnically diverse (self-identifying as 51.28% White, 21.79% Asian American or Pacific Islander, 10.26% Latina/o, 9.62% Multiracial, 3.85% African American/Black, 2.56% Other, and 0.64% Middle Eastern). This study was part of a larger study on prospective effects of social stressors on strengths and cortisol, and there were no notable differences in the sample demographics.

Procedure

Prior to data collection, this study was approved by the SPU Institutional Review Board and adhered to the ethical standards of both the institution and APA. Participants were exposed to minimal risk, such that participants were notified that they might experience some psychological discomfort when answering personal questions.

This study was divided into two phases and is part of a larger investigation on stress and vulnerabilities in daily life. Following recruitment procedures, students interested in participating were directed to a consent form and online baseline survey. First, for the baseline survey, participants were asked to answer an online questionnaire

through Qualtrics with items assessing trait detachment and trait antagonism. Second, upon completion of the baseline measures, participants were instructed to complete 15 brief, online repeated measures surveys through Qualtrics over the course of five weeks, which included items on psychosocial stressors and psychological distress in the context of daily stressors. Participants were asked to describe their worst interpersonal stressor in the past 2-3 days, followed by ratings of their perceptions of the situation and psychological distress in the situation (i.e., anxiety, depression, and anger). If participants did not complete one of the brief surveys, then they received an email reminder the next day to prompt them to complete the brief survey. Each brief survey took approximately five minutes to complete.

Measures

Interpersonal Situation/Stressor

To evaluate the type of perceived interpersonal situation, participants completed a self-developed set of items for the experience sampling. These items began with an operationalized definition for a social interaction: “We're defining a social interaction as one in which you change your behavior in response to another person, and which lasts at least 5 minutes (This can include texting or phone conversations),” which was originally developed for studying daily social interactions by Wheeler and Nezlek (1977). Participants were asked to describe the most “stressful, disappointing, or annoying social interaction” that occurred within the past two to three days. Participants were provided examples of social interactions (e.g., interaction with a professor). These items included items that assess perceptions of the others’ behavior as excessively high in perceived agency (i.e., "Someone was being bossing me around or being controlling”) and low in

perceived communion (i.e., “Someone was being quarrelsome, cold, or uncooperative”). Participants rated these items for the aforementioned social interaction on a graphic rating scale ranging from 0 (*not at all*) to 100 (*extremely*). These items were developed based on another study utilizing single-items to quantify agentic and communal perceptions (Scott et al., 2017) and indicate the extent to which participants perceive these aspects in social interactions, allowing for examination of both within and between variability. I averaged the two items to provide a measure of cold-dominant perceptions. Participants responded to these prompts three times a week, for a total of approximately 15 responses per participant. Reliability estimates for the current sample was 0.85, based on formulas for calculating reliability in multilevel modeling contexts (Cranford et al., 2006).

Psychological Distress

In addition to the interpersonal stressor, participants rated items related to psychological distress for each stressor diary entry. Specifically, items assessing psychological distress were yolked to the psychosocial stressor described by the participant within the last 2-3 days (event contingent reporting). They were instructed to describe how they felt during the social interaction by completing items measuring anxious mood (“on edge,” “anxious,” and “nervous”), depressed mood (“sad,” “discouraged,” and “hopeless”), and angry mood (“angry,” “annoyed,” and “resentful”) from the Profile of Mood States (POMS; Lorr & McNair, 1971). These items have been used in past experience sampling studies (Shrout et al., 2006). Participants rated items on a 0 (*not at all*) to 4 (*extremely*) scale. In order to measure anxiety, depression, and anger separately, items in each affective category were averaged. Given that the daily affective scores are nested data to examine within-subjects variance, separate scores for anxiety,

depression, and anger per day were used. Responses to POMS items were reliable and internally consistent in past studies using similar samples (Cranford et al., 2006; Fuller-Tyszkiewicz et al., 2017; Gawrysiak et al., 2016) as well as in the present study; specifically, the reliability estimate was 0.92 for anxiety, 0.88 for depression, and 0.91 for anger.

Pathological Personality Traits

The Personality Inventory for DSM-5 – Brief Form – Adult (PID-5-BF; Krueger et al., 2013) is a 25-item self-report questionnaire that was designed to screen for the presence and severity of maladaptive personality traits in an individual proposed in the alternative model of the DSM-5 (APA, 2013), which was divided into five trait domains (each containing five items): negative affect, detachment, antagonism, disinhibition, and psychoticism. The PID-5-BF is a condensed version of the original 220-item Personality Inventory for DSM-5 (PID-5; Krueger et al., 2013). The instructions for the PID-5-BF asks respondents to indicate the extent to which the statement describes the respondent's personality on a 4-point Likert scale. The response categories are *very false or often false* (0), *sometimes or somewhat false* (1), *sometimes or somewhat true* (2), and *very true or often true* (3). Sample detachment items include "I'm not interested in making friends." Sample antagonism items include "It's no big deal if I hurt other peoples' feelings." Specific trait domain scores are calculated by summing all five items within a given domain. Trait domain scores range from 0 to 15, with higher scores signaling greater dysfunction in the specific personality trait domain. Additionally, each trait domain score was averaged to produce a score ranging from 0 to 5 indicating personality dysfunction relative to the observed norms.

The PID-5-BF has shown acceptable psychometric properties, including internal consistency, model fit based on the FFM through confirmatory factor analysis, and test-retest validity (*r* ranging from .78 to .97; Anderson et al., 2016; Fossati et al., 2017). Furthermore, the PID-5-BF has demonstrated good convergent and discriminant validity (Fossati et al., 2017; Porcerelli et al., 2018). For example, the PID-5-BF domains are highly correlated with the expected Personality Psychopathology Five (PSY-5; Harkness et al., 1995) scales, demonstrating convergent validity (Fossati et al., 2017). Additionally, Bach et al. (2016) found correlational profiles of the brief and short forms of the PID-5 to be comparable to the original 220-item version. In this sample, the internal consistency for trait detachment was .68, and for trait antagonism it was .64.

Sample Size, Power, and Precision

Due to the nature of the nested data, whether or not a lower-level relationship (e.g., within-subject) is dependent on a higher-level (e.g., between subjects) factor (known as cross-level interaction effect) needs to be considered (Aguinis et al., 2013). In order to account for the cross-level interaction effect, Aguinis et al. (2013) advocate the use of multilevel modeling approaches for data analyses. Research on this subject has demonstrated the statistical power accounting for cross-level interaction effects is dependent on the magnitude of the cross-level interaction effect (operationalized as the coefficient associated with the product term between Level 1 and Level 2 predictors), the variance of Level 1 slopes across Level 2 units, and the sample sizes of Level 1 and Level 2 units (Mathieu et al., 2012). Based upon the extant literature on the effect sizes of interpersonal stressors on distress (ranging from 0.23 to 0.35; Bancila et al., 2006; Connor-Smith & Compas, 2002; Lin & Yusoff, 2013), I expected a moderate effect size

of 0.30 for main effects of predictors (perceived cold-dominance, antagonism, and detachment) on distress variables. Mathieu et al. (2012) suggest a 3:2 ratio for Level 1 sample size versus Level 2 sample size, and the ratio in this study exceeds this target (1918 to 155; approximate ratio of 12:1). Moreover, sensitivity analysis based on simulations (Arend & Schäfer, 2019) suggested that assuming moderate intraclass correlations, with over 150 participants and approximately 12 records per person, analyses would be able to detect standardized Level 1 effects of about .10 or greater, Level 2 effects of .26 or greater, and cross-level interactions of .30 or greater.

Planned Analyses

For data analyses, I planned to conduct preliminary data screening for missingness and assumptions (e.g., normality, homoscedasticity). Participants who had fewer than three repeated measure points were to be excluded *a priori* from the dataset. Repeated measures variables (e.g., interpersonal situation/stressor and psychological distress) were entered as Level 1 variables (nested within-person variables), whereas the personality traits of detachment and antagonism were entered as Level 2 variables (between-persons variables). For all analyses, I entered gender as a Level 2 covariate in preliminary analyses and removed it if it did not substantially impact results. As suggested by Aguinis et al. (2013), predictor and moderator variables were centered to allow for ease of interpretation of results across all analyses. Trait detachment and trait antagonism were grand-mean centered, thus allowing for results to be interpreted as deviations away from sample average levels of each trait. The interpersonal situation (i.e., psychosocial stressor) were person-centered such that effects reflected more intense

emotional outcomes associated with deviations above an individual's average level of perceived cold-dominance.

Given that my hypotheses were testing main effects and cross-level interactions, I planned to test models with a main effect of perceived cold-dominant (interpersonal stressor), main effect of personality train (either detachment or antagonism), and cross-level interaction effect in each model through multilevel modeling (MLM) analysis via SPSS software. Due to the nested nature of the variables, ordinary least squares regression was not appropriate because the assumption of independent errors is violated. Instead, MLM was be utilized as it is specifically used to analyze outcomes that vary at more than one level, such as with repeated measures data that is nested (grouped). I calculated maximum likelihood (ML) parameter estimates. I planned to examine the main effect of perceived cold-dominance on anxiety, depression, and anger (hypothesis 1a). Additionally, I modeled cross-level interaction effects of the between-subjects (i.e., trait antagonism and trait detachment) variables predicting within-person associations (i.e., interpersonal stressor/situation and psychological distress).

These analyses produced fixed effects as well as random effects for intercepts and slopes. I examined the main effects of trait antagonism and trait detachment, separately, on anxiety, depression, and anger (hypotheses 2a and 2b). To test the cross-level interaction effects, I investigated trait antagonism as a moderator on the relationship between the interpersonal situation (i.e., perceived cold-dominance) and anger (hypothesis 3a). I then tested the moderating effect of trait detachment as a moderator on the relationship between the interpersonal situation and feelings of anxiety and depression (hypothesis 3b).

Given that my outcome variables (anxiety, depression, and anger) were likely to share variance due to negative affect, I created two separate variables for each outcome. The first set of variables consisted of the original, standard emotion outcomes (anxiety, depression, and anger), whereas the second set of variables reflected the unique variance of each emotion outcome variable after partialing out variance associated with other distress outcomes (e.g., residualized anxiety removed variability due to depression and anger). This produced residualized anxiety, residualized depression, and residualized anger outcomes. Thus, MLM analyses were conducted twice: once with the original outcomes and once with the residualized outcomes in order to provide more conservative tests of specificity in terms of links of predicters to emotions, testing particular hypotheses with greater precision.

CHAPTER III

Results

Preliminary Analyses

Data pre-screening suggested minimal skewness and kurtosis for psychosocial stressor, anxiety, depression, and anger (ranging from +/- 1). Skewness and kurtosis for detachment and antagonism were within acceptable limits (+/- 1.5; see Tables 1 and 2 for descriptive statistics and a correlation matrix for study variables). Given that the pattern of results only varied for one analyses when including gender as a covariate, I reported results without gender controlled and noted the results where gender significantly influenced the model (only in model with antagonism and anger).

Table 1

Means, Standard Deviations, and Bivariate Correlations for Standard Variables

Variable	*M*	*SD*	1	2	3	4	5	6
1. They_C&D	24.88	27.21	—					
2. Detachment	2.21	2.55	.12**	—				
3. Antagonism	3.31	3.08	.05*	.35**	—			
4. Anxiety	1.66	1.11	.20**	.13**	.13**	—		
5. Depression	1.15	1.04	.25**	.19**	.17**	.57**	—	
6. Anger	1.46	1.11	.55**	.17**	.11**	.32**	.47**	—

Note. They_C&D = Daily aggregate of perceived cold and dominant behavior in social interactions; Detachment = Detachment subscale from the PID-5-BF; Antagonism = Antagonism subscale from the PID-5-BF; Anxiety = POMS anxiety subscale; Depression = POMS depression subscale; Anger = POMS anger subscale.

Table 2

Means, Standard Deviations, and Bivariate Correlations for Residualized Variables

Variable	*M*	*SD*	1	2	3	4	5	6
1. They_C&D	24.88	27.21	—					
2. Detachment	2.21	2.55	.12**	—				
3. Antagonism	3.31	3.08	.05*	.35**	—			
4. Residual Anxiety	.00	.92	.04	.02	.04	—		
5. Residual Depression	.00	.79	-.03	.09**	.10**	-.50**	—	
6. Residual Anger	.00	.98	.48**	.10**	.03	-.08**	-.37*	—

Note. They_C&D = Daily aggregate of perceived cold and dominant behavior in social interactions; Detachment = Detachment subscale from the PID-5-BF; Antagonism = Antagonism subscale from the PID-5-BF; Residual Anxiety = anxiety free from depression and anger; Depression = depression free from anxiety and anger; Anger = anger free from anxiety and depression.

As this study was longitudinal in nature, I expected attrition, and therefore the data were analyzed for missingness. The original data set consisted of 159 cases. Two cases were excluded because participants did not meet the age criteria and two cases were excluded because participants did not complete at least three daily diaries. Overall, the final sample consisted of 155 participants for the diary data. Participants completed an average of 12.57 entries (*SD* = 3.50), with approximately 99% of the values in those data being complete. A visual inspection of missing value patterns indicated the monotonic pattern as described by Enders (2010), which is often associated with attrition of longitudinal data.

Additionally, given that nested data was used, thus violating the assumptions of independent errors, analyses assumed autocorrelation (AR1 covariance structure), to account for the higher correlation between repeated measures at times nearer each other. Across all models with standard emotion outcomes, AR1 rho estimates were positive and significant (supporting that covariance structure), although not when residualized emotion outcomes were examined.

Lastly, preliminary analyses included testing random effects in unconditional (no predictors) models to assure appropriate use of multilevel modeling. Across all standard emotion outcomes, random intercepts and slopes were significant. Thus, subjects had differing levels of anxiety, depression, and anger, and participants varied in the intensity or magnitude of their relationship between perceived cold-dominance and their emotional response. However, when testing models with residualized outcomes, random slopes and intercepts were significant for residualized depression and anger, but not significant for anxiety, perhaps due to the overly conservative nature of those models. Overall, preliminary analyses suggested that multilevel modeling analyses were appropriate.

Hypotheses 1a and 1b: Main Effects of Cold-Dominant Behavior

To model all main effects and interactions simultaneously, MLM was used to test hypotheses. First, I examined main effects of cold-dominance. As expected, across all models tested with standard (i.e., nonresidualized) emotional outcomes, the main effect of perceived cold-dominant behavior significantly predicted psychological distress (anxiety, depression, and anger; see Tables 3 and 4), after accounting for effects of pathological personality traits and interactions. Thus, when individuals perceived other's

behavior as more socially distant and controlling than their average perception during stressors, feelings of anxiety, depression, and anger increased as well.

Table 3

Parameter Estimates for Effects of Perceived Cold-Dominant Behavior and Detachment on Standard and Residualized Outcomes

Outcome Type	Predictors	Anxiety			Depression			Anger		
		B (*SE*)	*p*	95%CI	*B* (*SE*)	*p*	95%CI	*B* (*SE*)	*p*	95%CI
Standard	Cold-Dom	**0.003 (0.001)**	**0.020**	**[0.0004; 0.005]**	**0.004 (0.001)**	**0.002**	**[0.002; 0.006]**	**0.017 (0.001)**	**< 0.001**	**[0.0004; 0.005]**
	Detachment	0.199 (0.103)	0.054	[-0.003; 0.402]	**0.290 (0.087)**	**0.001**	**[0.117; 0.463]**	**0.20 (0.099)**	**0.046**	**[0.015; 0.557]**
	Interaction	0.001 (0.002)	0.807	[-0.003; 0.004]	0.001 (0.002)	0.631	[-0.003; 0.005]	-0.0001 (0.002)	0.944	[-0.004; 0.007]
Resid	Cold-Dom	-0.001 (0.001)	0.468	[-0.003; 0.001]	**-0.002 (0.001)**	**0.033**	**[-0.004; -0.0002]**	-0.001 (0.001)	0.468	[-0.003; 0.001]
	Detachment	0.027 (0.074)	0.719	[-0.120; 0.174]	**0.134 (0.052)**	**0.012**	**[0.03; 0.24]**	-0.03 (0.10)	0.776	[-0.225; 0.169]
	Interaction	-0.0003 (0.002)	0.834	[-0.003; 0.003]	0.001 (0.002)	0.506	[-0.002; 0.004]	-0.001 (0.002)	0.826	[-0.005; 0.004]

Note. Cold-Dom = Daily aggregate of perceived cold and dominant behavior in social interactions; Detachment = Detachment subscale from the PID-5-BF; Interaction = Cross-level interaction effect of Cold-Dom and Detachment. Resid = residualized distress outcomes (unique variance). Significant effects in bold font ($p<.05$). Given that gender was not significant in these models, I reported the results without the gender covariate.

Table 4

Parameter Estimates for Effects of Perceived Cold-Dominant Behavior and Antagonism on Standard and Residualized Outcomes

Outcome Type	Predictors	Anxiety			Depression			Anger		
		B (*SE*)	*p*	95%CI	*B* (*SE*)	*p*	95%CI	*B* (*SE*)	*p*	95%CI
Standard	Cold-Dom	**0.003 (0.001)**	**0.021**	**[0.0004; 0.005]**	**0.004 (0.001)**	**0.002**	**[0.001; 0.006]**	**0.017 (0.001)**	**< 0.001**	**[0.149; 0.019]**
	Antagonism	**0.286 (0.127)**	**0.039**	**[0.015; 0.557]**	**0.502 (0.114)**	**< 0.001**	**[0.276; 0.728]**	**0.503 (0.128)**	**< 0.001**	**[0.250; 0.756]**
	Interaction	0.001 (0.003)	0.609	[-0.004; 0.007]	0.003 (0.003)	0.307	[-0.003; 0.008]	0.001 (0.003)	0.758	[-0.004; 0.006]
	Gender	--- ---	---	---	--- ---	---	---	**0.037 (0.138)**	**0.009**	**[0.094; 0.640]**
Resid	Cold-Dom	-0.028 (0.10)	0.776	[-0.225; 0.169]	**0.215 (0.07)**	**0.003**	**[0.077; 0.353]**	**0.249 (0.193)**	**0.017**	**[0.045; 0.453]**
	Antagonism	-0.001 (0.002)	0.826	[-0.005; 0.004]	0.002 (0.002)	0.341	[-0.002; 0.007]	-0.001 (0.002)	0.792	[-0.006; 0.004]
	Interaction	**0.003 (0.001)**	**0.021**	**[0.0004; 0.005]**	**0.004 (0.001)**	**0.002**	**[0.001; 0.006]**	**0.017 (0.001)**	**< 0.001**	**[0.149; 0.019]**
	Gender	--- ---	---	---	--- ---	---	---	**0.238 (0.112)**	**0.036**	**[0.016; 0.460]**

Note. Cold-Dom = Daily aggregate of perceived cold and dominant behavior in social interactions; Antagonism = Antagonism subscale from the PID-5-BF; Interaction = Cross-level interaction effect of Cold-Dom and Antagonism. Resid = residualized distress outcomes (unique variance). Significant effects in bold font ($p<.05$).

Similar results were found when testing the main effect of perceived cold-dominant behavior on residualized anger, but not residualized depression and residualized anxiety. Specifically, when predicting residualized anger, and after controlling for detachment, gender, and cross-level interactions (i.e., between interpersonal stressor and detachment), perceived cold-dominant behavior predicted higher anger. In a separate model, when predicting residualized anger, and after controlling for antagonism, gender, and cross-level interactions (i.e., between interpersonal stressor and antagonism), perceived cold-dominant behavior also predicted higher residualized anger. In a similar vein, as perceived cold-dominant behavior increased, residualized depression decreased significantly, potentially suggesting a suppression effect due to partialling out distress variance shared with anxiety and anger. Those effects were consistent across models predicting residualized depression, even after controlling for pathological personality traits (detachment and antagonism separately), cross-level interactions, and gender, despite being contrary to hypotheses. Testing the main effect of cold-dominant behavior on residualized anxiety yielded nonsignificant results.

Hypothesis 2a: Detachment Main Effects

The main effects of detachment on standard (nonresidualized) anxiety, depression, and anger varied depending on the model and outcome (see Table 3). Consistent with my hypothesis, baseline levels of detachment prospectively predicted higher levels of depression, as well as on anger, in the context of naturalistic stressors. However, contrary to my hypothesis, detachment did not predict anxiety. When examining the residualized outcomes, baseline detachment predicted only residualized

depression, in a positive direction, consistent with the expectation of specificity in the detachment-depression link.

Hypothesis 2b: Antagonism Main Effects

The main effects of antagonism across all standard emotion outcomes were significant (see Table 4). Thus, higher trait antagonism prospectively predicter higher downstream anxiety, depression, and anger in the context of naturalistic stressors. The results for anger were consistent with hypotheses, but antagonism's effect on anxiety and depression were not hypothesized explicitly, although consistent with the idea of antagonism as a risk factor for emotional distress in general. When examining the main effects of antagonism on the residualized anger outcome, the results in this more conservative model were consistent with my hypothesis of specificity in the antagonism-anger relationship. Curiously, there was a negative main effect of antagonism on residualized depression as well. Results indicated no main effect of antagonism on residualized anxiety. Of note, the main effects of antagonism on anger were present, even after controlling for gender, which was also significant (see Table 4).

Hypotheses 3a and 3b: Cross-Level Interactions

Lastly, contrary to hypotheses, cross-level interaction effects failed to reach statistical significance. Neither detachment nor antagonism amplified effects of perceived cold-dominance on distressing emotional states, whether across all standard and residualized outcomes.

CHAPTER IV

Discussion

The present study is among the first to examine PID-5 traits as prospective predictors of downstream risk for distressing emotion. Results, in general, underscored the importance of antagonism and detachment as dysfunctional personality traits that increase such risk, but portray the particular situational stressors assessed in this study as having powerful direct effects on distress rather than fitting a "person by situation" interaction or diathesis-stress model.

Hypotheses 1a and 1b: Main Effects of Predictor on Outcomes

Across all standard emotion outcomes, perceived cold-dominant behavior positively predicted an increase in anxiety, depression, and anger, even after controlling for detachment, antagonism, and the interaction between interpersonal stressor and personality traits. These results lend support to interpersonal theory, such that humans have a universal need for significance (agency) and belonging (communion) and when these needs are thwarted, there is a pronounced predictable negative affective experience (Horowitz, 2004). Thus, even in brief interactions, individuals find interpersonal situations they appraise as cold and dominant as consistently upsetting, in terms of all types of distressing emotions assessed (anxiety, depression, and anger). Furthermore, these results are consistent with the extant literature on perceived aversive personality traits, reflective of the Dark Triad of personality, when conceptualized through the interpersonal circumplex (Jones & Paulhus, 2011; Rauthmann & Kolar, 2013); social characteristics in the cold-dominant region of interpersonal space tend to cause substantial distress for others in the social context, regardless of whether the actor finds

them distressing. This finding is also consistent with the idea that in situations where cold-dominant behavior is perceived, people may experience a threat or decrease in self-esteem and interpersonal security (Gurtman, 1992), which lead greater emotional distress (Lutgen-Sandvik & Arsht, 2014).

However, it is important to note that when emotion outcomes were parsed apart from one another (controlling for shared negative affect), these cold-dominant interpersonal stressors still predicted some residualized forms of distress, but in a complex pattern. Even when accounting for transdiagnostic negative affect, cold-dominant perceptions uniquely predicted anger, as expected. This may reflect individuals feeling indignant, disrespected, or affronted by these aversive situations. Most likely, cold-dominant behavior clashes with the expected social norms of interaction, or that these interactions take place in a larger group setting (i.e., more than two participants), where cold-dominant behavior is seen as an attack on one's in-group, thus facilitating confrontational goals and emotions (i.e., anger).

Surprisingly, after partialing out shared negative affect and other forms of distress, cold-dominant interactions predicted *lower* residualized depression, suggestive of a potential suppression effect. Namely, cold-dominance strongly predicted higher depression in general but the sign of this relationship flipped after removing variability associated with other negative emotions. Because anger and anxiety are both negatively valenced and characterized by high arousal/activation, controlling for them likely left only more low-arousal forms of distress. The positive association suggests that perceived cold-dominance, after controlling for high-arousal negativity, was in some ways pleasant or acceptable to individuals. This might be consistent with the self-verification literature

(Swann Jr, 2011), in which individual with depression or negative self-concepts prefer negative feedback from others, despite unpleasant aspects, because it feels predictable and understandable to them. Another possibility is that in perceived cold-dominant interactions, individuals may engage in downward comparison toward the interaction partner, which has been shown to decrease depressive symptomology (Gibbsons, 1986).

My findings regarding lack of effect of cold-dominance on residualized anxiety were inconsistent with hypotheses and with Lutgen-Sandvik and Arsht's (2014) findings that individuals experienced apprehension when interacting with others in aversive interpersonal situations. Indeed, across residualized models, cold-dominant situations did not result in a predictable increase or decrease in anxiety, suggesting that much of the effect of such situations on anxiety is due to broad negative affect in general. One the one hand, this lends support to a transdiagnostic perspective that gives a prominent role to negative affect across all distressing conditions and emotions. On the other hand, this may suggest that these interactions do not hold enough social significance to be perceived as a threat.

Overall, the results showed that even a few brief items about perceptions of coldness and dominance in others robustly predicted distressing daily shifts in several emotions. They also provided some evidence of hypothesized specificity in the link to anger, but more research is warranted to replicate the unexpected link to lower residualized depression.

Hypotheses 2a and 2b: Main Effects of Moderators on Outcomes

In this study, I examined the maladaptive personality traits of detachment and antagonism. Main effects of detachment on standard depression and anger outcomes were found, even after controlling for gender and situational interpersonal stressor items.

With regard to main effects of *detachment*, previous research by Papousek and colleagues (2018) indicated that trait detachment was linked to the withdrawal/avoidance motivation system, which is further associated with symptoms of fear, anxiety, and depression (Muris et al., 2005; Pinto-Meza et al., 2006). I anticipated that detachment may be more closely associated with avoidance of social interactions due to anxiety and anhedonia due to depression. Additionally, trait detachment may have operated through rejection sensitivity to impact these outcomes; thus one would anticipate that detachment would predict higher anxiety and depression. The finding that baseline detachment prospectively predicted higher depression is consistent with that formulation. However, contrary to expectations, detachment did not predict downstream anxiety.

One potential explanation for the discrepancy may pertain to theorized mechanisms of detachment. Specifically, detachment may operate more from an avoidance of intimacy (linked to depression) than avoidance of rejection (linked to anxiety). Southard and colleagues (2015) noted that individuals with detached personality styles tend to feel greater discomfort around others, view themselves as more distant, and attend to limit social interactions, which may be through an anhedonic disinterest in social relationships rather than from an anxious discomfort in social situations. Through an interpersonal circumplex lens, these results are consistent with the idea that individuals with detached interpersonal styles may avoid socializing due to not viewing social interactions as rewarding and meeting personal goals. Indeed, avoidance of

intimacy due to disinterest in social interactions may capture trait detachment more precisely, isolating it from more general negative affectivity and anxiety. Furthermore, anxiety outcomes are more closely associated with the PID-5 dimension of negative affectivity (i.e., clinically high variants of neuroticism including anxiousness, emotional lability, and perseveration), which supports the statistical (factor analysis) and conceptual separation of negative affectivity facets from those of detachment (i.e., withdrawal, anhedonia, and intimacy avoidance; Krueger et al., 2012; Wright et al., 2012).

Moreover, when anger and anxiety variance were removed from depression, the relationship between detachment and depression persisted, which is consistent with previous research on detachment and negative affect (Rappaport, Moskowitz, & D'Antono, 2014), as well as with the theorized core of detachment as involving social isolation and deficits in positive emotionality. Thus, the residualized findings provide a stronger case for specificity in terms of particular emotional risks for those with high detachment. This main effect on depression is consistent with my hypotheses, such that individuals characterized by detachment would be more predisposed to experience depression symptomology. The extant literature on detachment characterizes it as maladaptive low extraversion, combined with suspiciousness, social withdrawal, anhedonia, and intimacy avoidance (Gore & Widiger, 2013; Wright et al., 2012), demonstrated by socially isolating behavior (Holden et al., 2015). In contrast, detachment no longer had a main effect on anger when it was residualized, suggesting that detachment may have predicted more general dysregulation due to broad associations with negative affectivity in general.

Regardless of mechanisms, the findings of detachment prospectively predicting subsequent distress is itself a contribution. Most of the research on PID constructs has relied on cross-sectional designs (e.g., Rappaport, Moskowitz, and D'Antono, 2014; Southard et al., 2015; Wright et al. 2012), and so the present research adds further evidence of the predictive and construct validity of pathological traits such as detachment. In addition to this, the present study adds to the literature on detachment by clarifying the main effect of detachment on depression, but not anxiety. Although there is limited research on detachment and anxiety, studies have linked subfacets of detachment (e.g., social withdrawal) to anxiety (Hopwood et al., 2013). By parsing apart the shared-variance of depression and anxiety, the results indicate detachment has a unique impact on depression, over and above broad concepts of emotional dysregulation (Muris et al., 2005; Pinto-Meza et al., 2006), internalizing behaviors (Kotov et al., 2010; Ruiz et al., 2008; Samuel & Widiger, 2008; Saulsman & Page, 2004; Wright et al., 2015), or motivational systems (Papousek et al., 2018).

Results indicated main effects of antagonism, prospectively predicting on anger, anxiety, and depression, even after accounting for interpersonal stressors and interactions. Contrary to my hypotheses, antagonism predicted more than anger. These finding highlights the fact the effects of antagonism branch into different presentations of psychological distress. For example, anxiety and depression represent internalizing emotions with corresponding internalizing behaviors, whereas anger is also linked to externalizing emotions and behaviors. One possibility for these results is that antagonism has been linked to narcissism (Hopwood et al., 2012), which may be portrayed in the forms of vulnerable narcissism and grandiose narcissism. With vulnerable narcissism,

depression and anxiety may be primary emotion, whereas with grandiose narcissism, anger may be more pertinent (Besser & Priel, 2010; Pincus et al., 2014; Stucke & Sporer, 2002; Wink, 1992). It is possible that some "flavors" or variants of psychopathy similarly predispose more to internalizing vs. externalizing emotional states, consistent with research on two distinct factors with differential correlates in the factor structure of a more widely used assessment of psychopathy, the Psychopathy Check List (Blonigen et al., 2005).

However, with the residualized outcomes, antagonism only predicted anger and depression. These results may reflect the impact of a shared emotional dysregulation component that encompasses psychological distress. Consistent with my hypothesis, there were main effects of antagonism on anger and residualized anger. This further supports the research by Kuppens (2005) on antagonism predicting anger proneness and of Sleep and colleagues (2018) on trait antagonism being linked to externalizing behavior. However, previous studies generally did not control for shared variance across negative emotional outcomes, so the present study makes a contribution in terms of specificity.

Contrary to my hypotheses, antagonism positively predicted depression. This is inconsistent with the findings by Wright and colleagues (2012), demonstrating a low correlation of antagonism with anxiousness (r = 0.04) and depressivity (r = -0.01). These results may be reflective of anger directed inwards. Individuals with antagonistic styles may engage in internalized hostility, which could impact self-esteem and feelings of depression (Busch, 2009). Supporting this, Koh, Kim, and Park (2002) found that anger and hostility was more closely linked to patients with depression, rather than anxiety,

which is consistent with the main effect in this study of antagonism on anger and depression, but not anxiety. Alternatively, because much of the antagonism research has been cross-sectional, it's possible that high-antagonism individuals are less likely to endorse distress and internalizing symptoms at the same time point as assessment of personality outside the context of psychosocial stress, but *are* able or willing to endorse a broader range of negative emotions (anxiety and depression, not just anger) once they are in or near situations involving interpersonal conflict.

Trait antagonism is defined as clinically low agreeableness with features of manipulativeness, deceitfulness, hostility, callousness, and attention seeking (Gore & Widiger, 2013; Wright et al., 2012). Through the interpersonal circumplex lens, trait antagonism would come into conflict with perceived dominance behavior (e.g., challenging one's status and agency) and cold behavior (e.g., not fitting one's expectations of attention seeking), with commensurate feelings of anger and depression given thwarted interpersonal goals of agency and communion. From this perspective, it is understandable that antagonism would predict multiple forms of distress in naturalistic stressors.

Of note, gender was included in all tested models as a covariate, and although gender did not impact the results of detachment models, gender had a significant effect in one antagonism model. Specifically, there was a positive main effect of gender on anger, even after controlling for perceived cold-dominance, antagonism, and cross-level interaction effects. Indeed, these results persisted even with residualized anger. These results are consistent with previous research on gender and social roles impacting frequency of antagonistic expression, even with diminished gender effects and blurred

gender roles (Fischer et al., 2004). This may be due to gendered socialization of emotions, such that it is generally more acceptable for men to express anger, whereas traditional gender norms encourage women to rein in their anger. Overtime, this anger may have built up and led to increased or more intense experience of anger. Alternatively, individuals identifying as women may also experience greater anger due to the current sociopolitical climate. Specifically, despite social activism, gender inequality and injustice continue to persist (e.g., pay gaps, discrimination) and may increase feelings of frustration and anger. Thomas (1993) conducted a study on stressors that were associated with increased anger in women and found that feelings of powerlessness, injustice, and irresponsibility of others led to increased anger.

Hypotheses 3a and 3b: Cross-level Interaction Effects

In addition, I hypothesized that the magnitude of the relationship between perceived cold-dominant behavior and psychological distress variables would vary significantly across subjects, as demonstrated by random slopes. This was demonstrated consistently across the standard emotion outcomes, suggesting that despite the fixed effects of cold-dominance—which show that people generally found it aversive—some people found it more aversive that others. This, in some ways, is consistent with models positing person-situation interactions (e.g., CAPS model; diathesis-stress, etc.), and provided a basis for explicitly testing such interactions in the present data. However, random slopes were not significant in the relationships between perceived cold-dominance and the residualized outcomes. This may be due to several possible considerations. One is that each of the distress outcomes loads strongly on general negative affectivity, and that larger chunk of shared variance is more variable in response

to particular stressors. If that is the case, it may be that the magnitude of variability in general negativity in responses to cold-dominance is greater, whereas people gave more consistent (less variable) responses when only narrower forms of negative emotion were considered. For instance, perhaps cold-dominance similarly evokes specific aspects of anger in a somewhat universal fashion across individuals in the sample, with little between-person variability in that positive slope.

Alternatively, it may be that using residualized outcomes threw away enough shared variance that what is left has smaller associations with stressors, leaving lower statistical power to detect fixed or random effects. This interpretation may also fit the fact that there was stronger evidence of autocorrelation (AR1 structure)—correlation among one's closest repeated measures—when modeling standard rather than residualized outcomes. In other words, there was more ability to detect within-person autocorrelation when general negative affect was not removed. Given that most studies have not been as conservative as the present study (i.e., have not used residualized outcomes), it remains for future work to replicate such effects in a larger sample.

With regard to person-situation interactions, I hypothesized that interpersonally stressful situations and the resulting psychological distress (i.e., anxiety, depression, anger) would be amplified by maladaptive traits of detachment and antagonism, however, these moderation terms were not significant in any models. There are several possibilities for these results. First, the magnitude of cross-level interaction effects may be too small to be detected within this sample. Based on the extant literature on sensitivity analyses, cross-level interaction effects should detect cross-level interactions of .30 effect size or higher (Arend & Schäfer, 2019). However, interaction effects can often be relatively

small, requiring much larger samples for a fully adequate test of the concept. Thus, these results may indicate that the magnitude of the cross-level interaction effects have smaller effect sizes than anticipated.

Second, it is possible that these cross-level interaction effects are simply not present in these models specifically. In theorizing about person-situation interactions, "strong situations" are thought to constrain effects of personality, whereas ambiguous or weak situations may leave more room for personality traits to exert unique effects. It may be that cold-dominance is such a "strong situation" that most participants found it distressing enough that there was a limited role for traits to amplify the effect. Testing a broader range of social stressor situations that vary in intensity (e.g., mild vs. extreme behaviors) and content (e.g., others' cold vs. warm vs. submissive behavior) would provide a more robust test of this possibility. In addition, adopting a larger set of interpersonal stressor items within the construct might enhance reliability and construct bandwidth/coverage to provide a larger "net" to catch effects. Nonetheless, despite the lack of "multiplicative" effects of personality and stressors interacting, the present study suggests important roles for both personality and situations in predicting distress, albeit in an "additive" model in this data.

Clinical Implications

Given that these maladaptive traits of detachment and antagonism may influence expectations and scripts of social interactions (Barnow et al., 2009; Beck et al., 2001; Nordahl et al., 2005), it is important to clarify how these predict emotional dysregulation in stressful day-to-day experiences. The main effect findings of detachment on residualized depression, but not residualized anxiety suggest that those with detached

interpersonal styles may actually find social relationships and interactions unrewarding and thus, engage in intimacy avoidance, rather than because of social anxiety or rejection anxiety. Clinically, this may help illuminate diagnostic conceptualization and treatment planning. Specifically, clinicians may find brief personality trait measures, such as the PID-5-BF, useful in illuminating whether patients with maladaptive detachment are more likely to experience depression, anxiety, or a combination of both, through the subfacets of detachment and negative affectivity. This may further aid clinicians with treatment planning, such that those high in detachment and presenting with depressive symptomology may not experience positive affect via social engagement (encouraged as part of treatment in behavioral activation), since these interactions may not be rewarding. These results may also shed light on treatment response in individuals with maladaptive personality traits. For example, individuals with high antagonism may experience increased anger and thus, treatments targeting anger may allow patients to work through anger, as well as addressing other primary concerns (e.g., PTSD, martial conflict, substance misuse). Similarly, patients with high detachment may be particularly at risk for depressive symptomology and thus may benefit from treatments targeting this (e.g., behavioral activation, cognitive therapy). This may be especially effective in setting where multiphase treatments (i.e., anger management treatment prior to trauma-focused therapy) are possible or where concurrent treatment is feasible.

Antagonism predicted anger, as well as anxiety and depression, but after accounting for shared variance between distress outcomes, it predicted anger and depression. Thus, individuals high in antagonism may simply benefit from more general, transdiagnostic treatments that target psychological distress broadly, but greater

specificity might be useful in targeting anger and depression in particular, whereas it may be less warranted to target fear-based difficulties. Alternatively, if future research utilizing residualized or more specified emotional outcomes reflects the findings in this study, it may indicate a need to target specific mechanisms of emotions. For example, identification of the mechanisms underlying antagonism (e.g., vulnerable narcissism versus grandiose narcissism) may clarify best treatment options.

Furthermore, these findings imply the importance of warmth and collaboration in the therapeutic relationship, such that if a clinician is seen as cold and dominant, patients may experience an initial aversive emotional response (i.e., anger, anxiety, and depression). This may be particularly important when clinicians conduct intakes or assessments, which tend to be more directive (i.e., dominant) and detached (i.e., cold), indicating of the need for interpersonal engagement to increase treatment buy in and follow through. However, the present results do not suggest that patients high in antagonism or detachment would necessarily be at much greater risk for distress when perceiving others (such as a therapist) as cold-dominant.

Additionally, these findings may further benefit clinical practice when considering the interpersonal circumplex. In perceived cold-dominant situations, individuals may interpret this behavior has threatening to their goals of agency and communion. Thus, challenging these situations, such as through cognitive-behavioral therapy, may aid in reducing emotional dysregulation. This, combined with the research on the types of beliefs each maladaptive variant of personality has about oneself and others (Hopwood et al., 2013), sheds light on goals or targets for clinical intervention. For example, individuals high on antagonism tend to have thoughts reflective of inflated view

of self (i.e., superior or special compared to others; Hopwood et al., 2013). By better understanding the components of personality that predict anger, and the possible resultant interpersonal dysfunction, clinicians may be better equipped to treat personality pathology, which has historically had few treatment options and poor prognosis. Overall, identification of pathological variants of personality may aid clinicians in effective clinical treatment, especially with treatment resistant diagnoses (i.e., personality pathology).

Limitations and Conclusion

There are several theoretical and methodological limitations to this study and changes in future studies may yield greater understanding. First, given that this was a convenience sample of college students, this study is limited in its generalizability. Furthermore, this sample was drawn from a private, Christian university, which may pose confounding variables. It is possible that this sample shared cultural or religious values of community, which may result in biases in self-report measures on detachment personality traits. Similarly, trait antagonism may not be viewed favorably in a population of young undergraduate students, which might reduce variability and lead to a floor effect. Floor effects occur in psychological trait measures that possesses a lower limit for potential responses and have a large concentration of participant's scores lying at this limit, which may not distinguish variability or differences in participant responses. Future research may benefit from examination of floor effects regarding personality traits and population norms.

Second, my interpersonal stressor variable was created by aggregating two questions. Despite the reliability of this variable, future studies should incorporate more

questions and facets of coldness and dominance to capture the array of situations that this variable is supposed to reflect.

Third, anxiety free from depression and anger may not have been predicted by interpersonal stressors because these interactions may not have held significance to the individual. Participants may have been reporting on situations where important individuals were not present, and thus, there was no social threat to fuel feelings of anxiety. For example, brief interactions such as a disagreement with a classmate would result in a less interpersonally threatening relationship rupture than a disagreement with one's significant other or close family member. Future studies may benefit from examining the impact of perceived social threat on anxiety.

Lastly, Sleep et al. (2020) analyzed the facets of a variety of personality assessments, including the PID-5 Faceted Brief Form, and found that a seven-factor solution (callousness, grandiosity, domineering, manipulation, suspiciousness, aggression, and risk taking) is needed to more accurately capture antagonism. Given that I used the PID-5-BF, rather than the PID-5, facets for antagonism did not sufficiently accounting for the facets of grandiosity, domineering, aggression, and risk taking, and future studies should account for this in order to fully capture the dimension of antagonism.

Limitations acknowledged, the present study shows the importance of interpersonal stressors and maladaptive variants of personality on psychological distress. Specifically, interpersonal stressors as well as pathological personality traits related to interpersonal behavior generally predicted risk for a broad range of negative emotions in the context of naturalistic stressors in daily life. However, accounting for shared variance

between such negative emotions also revealed specificity. In particular, this study showed that antagonism and detachment prospectively predicted differential risk for anger and depression, respectively. Future research must further elucidate the direct and potentially interacting effects of interpersonal stressors and traits on the emotional life of individuals.

References

Aguinis, H., Gottfredson, R. K., & Culpepper, S. A. (2013). Best-practice recommendations for estimating cross-level interaction effects using multilevel modeling. *Journal of Management, 39*, 1490–1528. https://doi.org/10.1177/0149206313478188

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Publishing.

Anderson, J. L., Sellbom, M., & Salekin, R. T. (2018). Utility of the Personality Inventory for DSM-5–brief form (PID-5-BF) in the measurement of maladaptive personality and psychopathology. *Assessment, 25*, 596–607. https://doi.org/10.1177/1073191116676889

Ansell, E. B., & Pincus, A. L. (2004). Interpersonal perceptions of the Five-Factor Model of personality: An examination using the structural summary method for circumplex data. *Multivariate Behavioral Research, 39*, 167–201. https://doi.org/10.1207/s15327906mbr3902_3

Arend, M. G., & Schäfer, T. (2019). Statistical power in two-level models: A tutorial based on Monte Carlo simulation. *Psychological methods, 24*, 1–19. https://doi.org/10.1037/met0000195

Bach, B., Maples-Keller, J. L., Bo, S., & Simonsen, E. (2016). The alternative DSM–5 personality disorder traits criterion: A comparative examination of three self-report forms in a Danish population. *Personality Disorders: Theory, Research, and Treatment, 7*, 124–135. https://doi.org/10.1037/per0000162.supp

Bancila, D., Mittelmark, M. B., & Hetland, J. (2006). The association of interpersonal stress with psychological distress in Romania. *European Psychologist, 11*, 39–49. https://doi.org/10.1027/1016-9040.11.1.39

Barlow, D. H., Farchione, T. J., Bullis, J. R., Gallagher, M. W., Murray-Latin, H., Sauer-Zavala, S., Bentley, K. H., Thompson-Hollands, J., Conklin, L. R., Boswell, J. F., Ametaj, A., Carl, J. R., Boettcher, H. T., & Cassiello-Robbins, C. (2017). The unified protocol for transdiagnostic treatment of emotional disorders compared with diagnosis-specific protocols for anxiety disorders: A randomized clinical trial. *JAMA Psychiatry, 74*, 875–884. https://doi.org/10.1001/jamapsychiatry.2017.2164

Barnow, S., Stopsack, M., Grabe, H. J., Meinke, C., Spitzer, C., Kronmüller, K., & Sieswerda, S. (2009). Interpersonal evaluation bias in borderline personality disorder. *Behaviour Research and Therapy*, *47*, 359–365. https://doi.org/10.1016/j.brat.2009.02.003

Baron, K. G., Smith, T. W., Butner, J., Nealey-Moore, J., Hawkins, M. W., & Uchino, B. N. (2007). Hostility, anger, and marital adjustment: Concurrent and prospective associations with psychosocial vulnerability. *Journal of Behavioral Medicine*, *30*, 1–10. https://doi.org/10.1007/s10865-006-9086-z

Barrett, E. L., Mills, K. L., & Teesson, M. (2013). Mental health correlates of anger in the general population: Findings from the 2007 National Survey of Mental Health and Wellbeing. *Australian and New Zealand Journal of Psychiatry*, *47*, 470–476. https://doi.org/10.1177/0004867413476752

Barrett, L. F., & Pietromonaco, P. R. (1997). Accuracy of the five-factor model in predicting perceptions of daily social interactions. *Personality and Social Psychology Bulletin*, *23*, 1173-1187. https://doi.org/10.1177/01461672972311005

Barry, C. T., Chaplin, W. F., & Grafeman, S. J. (2006). Aggression following performance feedback: The influences of narcissism, feedback valence, and comparative standard. *Personality and Individual Differences*, *41*, 177–187. https://doi.org/10.1016/j.paid.2006.01.008

Beck, A. T., Butler, A. C., Brown, G. K., Dahlsgaard, K. K., Newman, C. F., & Beck, J. S. (2001). Dysfunctional beliefs discriminate personality disorders. *Behaviour Research and Therapy*, *39*, 1213-1225. https://doi.org/10.1016/S0005-7967(00)00099-1

Besser, A., & Priel, B. (2010). Grandiose narcissism versus vulnerable narcissism in threatening situations: Emotional reactions to achievement failure and interpersonal rejection. *Journal of Social and Clinical Psychology*, *29*, 874-902. https://doi-org.ezproxy.spu.edu/10.1521/jscp.2010.29.8.874

Bienvenu, O. J., Samuels, J. F., Costa, P. T., Reti, I. M., Eaton, W. W., & Nestadt, G. (2004). Anxiety and depressive disorders and the five-factor model of personality: A higher-and lower-order personality trait investigation in a community sample. *Depression and Anxiety*, *20*, 92-97. https://doi.org/10.1002/da.20026

Blackburn, R., & Maybury, C. (1985). Identifying the psychopath: The relation of Cleckley's criteria to the interpersonal domain. *Personality and Individual Differences*, *6*, 375-386. https://doi.org/10.1016/0191-8869(85)90062-5

Blonigen, D. M., Hicks, B. M., Krueger, R. F., Patrick, C. J., & Iacono, W. G. (2005). Psychopathic personality traits: Heritability and genetic overlap with internalizing and externalizing psychopathology. *Psychological Medicine, 35,* 637–648. https://doi.org/10.1017/s0033291704004180

Boswell, J. F. (2016). Recognizing anger in clinical research and practice. *Clinical Psychology: Science and Practice, 23*, 86-89. https://doi.org/10.1111/cpsp.12137

Bowles, D. P., Armitage, C. J., Drabble, J., & Meyer, B. (2013). Self-esteem and other-esteem in college students with borderline and avoidant personality disorder features: An experimental vignette study. *Personality and Mental Health, 7,* 307-319. https://doi.org/10.1002/pmh.1230

Brezo, J., Paris, J., & Turecki, G. (2006). Personality traits as correlates of suicidal ideation, suicide attempts, and suicide completions: A systematic review. *Acta Psychiatrica Scandinavica, 113,* 180–206. https://doi.org/10.1111/j.1600-0447.2005.00702.x

Bronisch, T., & Wittchen, H. U. (1994). Suicidal ideation and suicide attempts: Comorbidity with depression, anxiety disorders, and substance abuse disorder. *European Archives of Psychiatry and Clinical Neuroscience, 244,* 93-98. https://doi.org/10.1007/BF02193525

Broudy, R., Brondolo, E., Coakley, V., Brady, N., Cassells, A., Tobin, J. N., & Sweeney, M. (2007). Perceived ethnic discrimination in relation to daily moods and negative social interactions. *Journal of Behavioral Medicine, 30,* 31-43. https://doi.org/10.1007/s10865-006-9081-4

Brown, C., Schulberg, H. C., Madonia, M. J., Shear, M. K., & Houck, P. R. (1996). Treatment outcomes for primary care patients with major depression and lifetime anxiety disorders. *The American Journal of Psychiatry, 153*, 1293–1300. https://doi.org/10.1176/ajp.153.10.1293

Brown, T. A., & Barlow, D. H. (2009). A proposal for a dimensional classification system based on the shared features of the DSM-IV anxiety and mood disorders: Implications for assessment and treatment. *Psychological Assessment, 21*, 256-271. https://doi.org/10.1037/a0016608

Brown, T. A., Campbell, L. A., Lehman, C. L., Grisham, J. R., & Mancill, R. B. (2001). Current and lifetime comorbidity of the DSM-IV anxiety and mood disorders in a large clinical sample. *Journal of Abnormal Psychology, 110*, 585–599. https://doi.org/10.1037/0021-843X.110.4.585

Busch, F. N. (2009). Anger and depression. *Advances in Psychiatric Treatment, 15*, 271-278. https://doi.org/10.1192/apt.bp.107.004937

Cahill, S. P., Rauch, S. A., Hembree, E. A., & Foa, E. B. (2003). Effect of cognitive-behavioral treatments for PTSD on anger. *Journal of Cognitive Psychotherapy, 17*, 113-131.

Carson, R. (1969). *Interaction concepts of personality*. Aldine.

Carver, C. S., & Harmon-Jones, E. (2009). Anger is an approach-related affect: Evidence and implications. *Psychological Bulletin, 135*, 183–204. https://doi.org/10.1037/a0013965

Cassiello-Robbins, C., & Barlow, D. H. (2016). Anger: The unrecognized emotion in emotional disorders. *Clinical Psychology: Science and Practice*, *23*, 66-85. https://doi.org/10.1111/cpsp.12139

Cassiello-Robbins, C., Sauer-Zavala, S., Wilner, J. G., Bentley, K. H., Conklin, L. R., Farchione, T. J., & Barlow, D. H. (2018). A Preliminary Examination of the Effects of Transdiagnostic Versus Single Diagnosis Protocols on Anger During the Treatment of Anxiety Disorders. *The Journal of Nervous and Mental Disease*, *206*, 549-554. https://doi.org/10.1097/NMD.0000000000000834

Chapman, D. P., Perry, G. S., & Strine, T. W. (2005). The vital link between chronic disease and depressive disorders. *Preventing Chronic Disease*, *2*, 1-10.

Clark, L. A. (2007). Assessment and diagnosis of personality disorder. Perennial issues and an emerging reconceptualization. *Annual Review of Psychology*, *58*, 227–257. https://doi.org/10.1146/annurev.psych.57.102904.190200

Clark, L. A., & Watson, D. (1991). Tripartite model of anxiety and depression: psychometric evidence and taxonomic implications. *Journal of Abnormal Psychology*, *100*, 316-336. https://doi.org/10.1037/0021-843X.100.3.316

Cohrs, J. C., Asbrock, F., & Sibley, C. G. (2012). Friend or foe, champ or chump? Social conformity and superiority goals activate warmth-versus competence-based social categorization schemas. *Social Psychological and Personality Science*, *3*, 471-478. https://doi.org/10.1177/1948550611427357

Cole, P. M., & Hall, S. E. (2008). Emotion dysregulation as a risk factor for psychopathology. In T. P. Beauchaine & S. P. Hinshaw (Eds.), *Child and Adolescent Psychopathology.* (pp. 265–298). John Wiley & Sons Inc.

Connor-Smith, J. K., & Compas, B. E. (2002). Vulnerability to social stress: Coping as a mediator or moderator of sociotropy and symptoms of anxiety and depression. *Cognitive Therapy and Research, 26*, 39-55. https://doi.org/10.1023/A:1013889504101

Côté, S., Moskowitz, D. S., & Zuroff, D. C. (2012). Social relationships and intraindividual variability in interpersonal behavior: Correlates of interpersonal spin. *Journal of Personality and Social Psychology, 102*, 646-659. https://doi.org/10.1037/a0025313

Cranford, J. A., Shrout, P. E., Iida, M., Rafaeli, E., Yip, T., & Bolger, N. (2006). A procedure for evaluating sensitivity to within-person change: Can mood measures in diary studies detect change reliably? *Personality and Social Psychology Bulletin, 32*, 917–929. https://doi.org/10.1177/0146167206287721

Cukrowicz, K. C., Schlegel, E. F., Smith, P. N., Jacobs, M. P., van Orden, K. A., Paukert, A. L., Pettit, J. W., & Joiner, T. E. (2011). Suicide ideation among college students evidencing subclinical depression. *Journal of American College Health, 59*, 575–581. https://doi.org/10.1080/07448481.2010.483710

De Raad, B. E., & Perugini, M. E. (2002). *Big five assessment*. Hogrefe & Huber Publishers.

Dougherty, L. R., Smith, V. C., Bufferd, S. J., Carlson, G. A., Stringaris, A., Leibenluft, E., & Klein, D. N. (2014). DSM-5 disruptive mood dysregulation disorder: Correlates and predictors in young children. *Psychological Medicine, 44*, 2339-2350. https://doi.org/10.1017/S0033291713003115

Eberhart, N. K., Auerbach, R. P., Bigda-Peyton, J., & Abela, J. R. (2011). Maladaptive schemas and depression: Tests of stress generation and diathesis-stress models. *Journal of Social and Clinical Psychology*, *30*, 75-104. https://doi.org/10.1521/jscp.2011.30.1.75

Everson, S. A., Goldberg, D. E., Kaplan, G. A., Julkunen, J., & Salonen, J. T. (1998). Anger expression and incident hypertension. *Psychosomatic Medicine, 60,* 730-735. https://doi.org/10.1097/00006842-199811000-00014

Eysenck, H. J. (1967). The biological basis of personality. Thomas.

Farchione, T. J., Fairholme, C. P., Ellard, K. K., Boisseau, C. L., Thompson-Hollands, J., Carl, J. R., Gallagher, M. W., & Barlow, D. H. (2012). Unified protocol for transdiagnostic treatment of emotional disorders: A randomized controlled trial. *Behavior Therapy*, *43*, 666–678. https://doi.org/10.1016/j.beth.2012.01.001

Felsten, G. (1998). Gender and coping: Use of distinct strategies and associations with stress and depression. *Anxiety, Stress & Coping: An International Journal*, *11*, 289–309. https://doi.org /10.1080/10615809808248316

Few, L. R., Miller, J. D., Rothbaum, A. O., Meller, S., Maples, J., Terry, D. P., Collins, B., & MacKillop, J. (2013). Examination of the Section III DSM-5 diagnostic system for personality disorders in an outpatient clinical sample. *Journal of Abnormal Psychology, 122*, 1057-1069. https://doi.org/10.1037/a0034878

Fernandez, E., & Johnson, S. L. (2016). Anger in psychological disorders: Prevalence, presentation, etiology and prognostic implications. *Clinical Psychology Review*, *46*, 124-135. https://doi.org/10.1016/j.cpr.2016.04.012

Fischer, A. H., Rodriguez Mosquera, P. M., van Vianen, A. E. M., & Manstead, A. S. R. (2004). Gender and Culture Differences in Emotion. *Emotion, 4*, 87–94. https://doi.org/10.1037/1528-3542.4.1.87

Fossati, A., Somma, A., Borroni, S., Markon, K. E., & Krueger, R. F. (2017). The Personality Inventory for DSM-5 Brief Form: Evidence for reliability and construct validity in a sample of community-dwelling Italian adolescents. *Assessment, 24*, 615-631. https://doi.org/10.1177/1073191115621793

Fournier, M. A., Moskowitz, D. S., & Zuroff, D. C. (2008). Integrating dispositions, signatures, and the interpersonal domain. *Journal of Personality and Social Psychology, 94*, 531-545. https://doi.org/10.1037/0022-3514.94.3.531

Franck, E., Vanderhasselt, M. A., Goubert, L., Loeys, T., Temmerman, M., & De Raedt, R. (2016). The role of self-esteem instability in the development of postnatal depression: A prospective study testing a diathesis-stress account. *Journal of Behavior Therapy and Experimental Psychiatry, 50*, 15-22. https://doi.org/10.1016/j.jbtep.2015.04.010

Frick, P. J., Lilienfeld, S. O., Ellis, M., Loney, B., & Silverthorn, P. (1999). The association between anxiety and psychopathy dimensions in children. *Journal of Abnormal Child Psychology, 27*, 383–392. https://doi.org/10.1023/A:1021928018403

Fuller-Tyszkiewicz, M., Karvounis, T., Pemberton, R., Hartley-Clark, L., & Richardson, B. (2017). Determinants of depressive mood states in everyday life: An experience sampling study. *Motivation and Emotion, 41*, 510–521. https://doi.org/10.1007/s11031-017-9620-z

Gallagher, D. J. (1990). Extraversion, neuroticism and appraisal of stressful academic events. *Personality and Individual Differences*, *11*, 1053-1057. https://doi.org/10.1016/0191-8869(90)90133-C

Gawrysiak, M. J., Leong, S. H., Grassetti, S. N., Wai, M., Shorey, R. C., & Baime, M. J. (2016). Dimensions of distress tolerance and the moderating effects on mindfulness-based stress reduction. *Anxiety, Stress & Coping: An International Journal*, *29*, 552-560. https://doi.org/10.1080/10615806.2015.1085513

Gibbons, F. X. (1986). Social comparison and depression: Company's effect on misery. *Journal of Personality and Social Psychology*, *51*, 140-148. https://doi.org/10.1037/0022-3514.51.1.140

Goldney, R. D., Fisher, L. J., Dal Grande, E., & Taylor, A. W. (2004). Subsyndromal depression: prevalence, use of health services and quality of life in an Australian population. *Social Psychiatry and Psychiatric Epidemiology*, *39*, 293-298. https://doi.org/10.1007/s00127-004-0745-5

Goldney, R. D., Fisher, L. J., Wilson, D. H., & Cheok, F. (2000). Major depression and its associated morbidity and quality of life in a random, representative Australian community sample. *Australian and New Zealand Journal of Psychiatry*, *34*, 1022-1029. https://doi.org/10.1080/000486700279

Goldstein-Piekarski, A. N., Williams, L. M., & Humphreys, K. (2016). A trans-diagnostic review of anxiety disorder comorbidity and the impact of multiple exclusion criteria on studying clinical outcomes in anxiety disorders. *Translational Psychiatry*, *6*, e847. https://doi.org/10.1038/tp.2016.108

Góngora, V. C., & Castro Solano, A. (2017). Pathological personality traits (DSM-5), Risk factors, and mental health. *SAGE Open, 7,* 1-10. https://doi.org/10.1177/2158244017725129

Gore, W. L., & Widiger, T. A. (2013). The DSM-5 dimensional trait model and five-factor models of general personality. *Journal of Abnormal Psychology*, *122,* 816. https://doi.org/10.1037/a0032822

Griffin, S. A., & Samuel, D. B. (2014). A closer look at the lower-order structure of the Personality Inventory for DSM-5: Comparison with the Five-Factor Model. *Personality Disorders: Theory, Research, and Treatment, 5*, 406-412. https://doi.org/10.1037/per0000074

Gross, R., Olfson, M., Gameroff, M., Shea, S., Feder, A., Fuentes, M., ... & Weissman, M. M. (2002). Borderline personality disorder in primary care. *Archives of Internal Medicine*, *162,* 53-60. https://doi.org/10.1001/archinte.162.1.53

Gurtman, M. B. (2009). Exploring personality with the interpersonal circumplex. *Social and Personality Psychology Compass*, *3*, 601-619. https://doi.org/10.1111/j.1751-9004.2009.00172.x

Gurtman, M. B. (1992). Trust, distrust, and interpersonal problems: A circumplex analysis. *Journal of Personality and Social Psychology*, *62,* 989-1002. https://doi.org/10.1037/0022-3514.62.6.989

Hamid, A. A. (2004). Personality correlates of health outcomes in Sudanese university students. *Social Behavior and Personality: An International Journal*, *32,* 321-328. https://doi.org/10.2224/sbp.2004.32.4.321

Harkness, A. R., McNulty, J. L., & Ben-Porath, Y. S. (1995). The Personality Psychopathology Five (PSY-5): Constructs and MMPI-2 scales. *Psychological Assessment, 7,* 104-114. https://doi.org/10.1037/1040-3590.7.1.104

Hasin, D. S., Sarvet, A. L., Meyers, J. L., Saha, T. D., Ruan, W. J., Stohl, M., & Grant, B. F. (2018). Epidemiology of adult DSM-5 major depressive disorder and its specifiers in the United States. *JAMA Psychiatry, 75,* 336-346. https://doi.org/10.1001/jamapsychiatry.2017.4602

Hawkins, K. A., & Cougle, J. R. (2011). Anger problems across the anxiety disorders: findings from a population-based study. *Depression and Anxiety, 28,* 145-152. https://doi.org/10.1002/da.20764

Hawkins, K. A., Hames, J. L., Ribeiro, J. D., Silva, C., Joiner, T. E., & Cougle, J. R. (2014). An examination of the relationship between anger and suicide risk through the lens of the interpersonal theory of suicide. *Journal of Psychiatric Research, 50,* 59-65. https://doi.org/10.1016/j.jpsychires.2013.12.005

Heerlein, A., Richter, P., Gonzalez, M., & Santander, J. (1998). Personality patterns and outcome in depressive and bipolar disorders. *Psychopathology, 31,* 15-22. https://doi.org/10.1159/000029019

Hill, A. B., & Kemp-Wheeler, S. M. (1986). Personality, life events and subclinical depression in students. *Personality and Individual Differences, 7,* 469-478. https://doi.org/10.1016/0191-8869(86)90125-X

Hilton, M. F., & Whiteford, H. A. (2010). Associations between psychological distress, workplace accidents, workplace failures and workplace successes. *International*

Archives of Occupational and Environmental Health, *83*, 923-933. https://doi.org/10.1007/s00420-010-0555-x

Hirschfeld, R. M., Klerman, G. L., Clayton, P. J., & Keller, M. B. (1983). Personality and depression: Empirical findings. *Archives of General Psychiatry*, *40*, 993-998. https://doi.org/10.1001/archpsyc.1983.01790080075010

Holden, C. J., Roof, C. H., McCabe, G., & Zeigler-Hill, V. (2015). Detached and antagonistic: Pathological personality features and mate retention behaviors. *Personality and Individual Differences*, *83*, 77-84. https://doi.org/10.1016/j.paid.2015.03.054

Hopwood, C. J., Schade, N., Krueger, R. F., Wright, A. G., & Markon, K. E. (2013). Connecting DSM-5 personality traits and pathological beliefs: Toward a unifying model. *Journal of Psychopathology and Behavioral Assessment*, *35*, 162-172. https://doi.org/10.1007/s10862-012-9332-3

Hopwood, C. J., Thomas, K. M., Markon, K. E., Wright, A. G. C., & Krueger, R. F. (2012). DSM-5 personality traits and DSM–IV personality disorders. *Journal of Abnormal Psychology*, *121*, 424–432. https://doi.org/10.1037/a0026656

Horowitz, L. M. (2004). *Interpersonal foundations of psychopathology*. Washington, DC: American Psychological Association. https://doi.org/10.1037/10727-000

Horowitz, L. M., Wilson, K. R., Turan, B., Zolotsev, P., Constantino, M. J., & Henderson, L. (2006). How interpersonal motives clarify the meaning of interpersonal behavior: A revised circumplex model. *Personality and Social Psychology Review*, *10*, 67-86. https://doi.org/10.1207/s15327957pspr1001_4

Howes, M. J., & Hokanson, J. E. (1979). Conversational and social responses to depressive interpersonal behavior. *Journal of Abnormal Psychology*, *88*, 625-634. https://doi.org/10.1037/0021-843X.88.6.625

Jakupcak, M., Conybeare, D., Phelps, L., Hunt, S., Holmes, H. A., Felker, B., ... & McFall, M. E. (2007). Anger, hostility, and aggression among Iraq and Afghanistan war veterans reporting PTSD and subthreshold PTSD. *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies*, *20*, 945-954. https://doi.org/ 10.1002/jts.20258

Jensen-Campbell, L. A., Knack, J. M., Waldrip, A. M., & Campbell, S. D. (2007). Do Big Five personality traits associated with self-control influence the regulation of anger and aggression?. *Journal of Research in Personality*, *41*, 403-424. https://doi.org/10.1016/j.jrp.2006.05.001

Jiang, W., Samad, Z., Boyle, S., Becker, R. C., Williams, R., Kuhn, C., ... & Velazquez, E. J. (2013). Prevalence and clinical characteristics of mental stress–induced myocardial ischemia in patients with coronary heart disease. *Journal of the American College of Cardiology*, *61*, 714-722. https://doi.org/10.1016/j.jacc.2012.11.037

Johnson, S. L., Carver, C. S., & Joormann, J. (2013). Impulsive responses to emotion as a transdiagnostic vulnerability to internalizing and externalizing symptoms. *Journal of Affective Disorders*, *150*, 872-878. https://doi.org/10.1016/j.jad.2013.05.004

Jones, D. N., & Paulhus, D. L. (2011). Differentiating the Dark Triad within the interpersonal circumplex. In L. M. Horowitz & S. Strack (Eds.), *Handbook of*

Interpersonal Psychology: Theory, Research, Assessment, and Therapeutic Interventions. (pp. 249–267). John Wiley & Sons Inc.

Jovanović, D., Lipovac, K., Stanojević, P., & Stanojević, D. (2011). The effects of personality traits on driving-related anger and aggressive behaviour in traffic among Serbian drivers. *Transportation Research Part F: Traffic Psychology and Behaviour*, *14*, 43-53. https://doi.org/10.1016/j.trf.2010.09.005

Judd, L. L., Schettler, P. J., Coryell, W., Akiskal, H. S., & Fiedorowicz, J. G. (2013). Overt irritability/anger in unipolar major depressive episodes: Past and current characteristics and implications for long-term course. *JAMA Psychiatry*, *70*, 1171-1180. https://doi.org/10.1001/jamapsychiatry.2013.1957

Karademas, E. C. (2006). Self-efficacy, social support and well-being: The mediating role of optimism. *Personality and Individual Differences, 40*, 1281-1290. https://doi.org/10.1016/j.paid.2005.10.019

Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey replication. *Archives of General Psychiatry, 62,* 617–627. https://doi.org/10.1001/archpsyc.62.6.617

Kessler, R. C., Coccaro, E. F., Fava, M., Jaeger, S., Jin, R., & Walters, E. (2006). The prevalence and correlates of DSM-IV intermittent explosive disorder in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 63*, 669-678. https://doi.org/10.1001/archpsyc.62.6.617

Koh, K. B., Kim, C. H., & Park, J. K. (2002). Predominance of anger in depressive disorders compared with anxiety disorders and somatoform disorders. *Journal of Clinical Psychiatry, 63,* 486-492. https://doi.org/10.4088/jcp.v63n0604

Kotov, R., Gamez, W., Schmidt, F., & Watson, D. (2010). Linking "big" personality traits to anxiety, depressive, and substance use disorders: A meta-analysis. *Psychological Bulletin, 136,* 768-821. https://doi.org/10.1037/a0020327

Krueger, R. F., Derringer, J., Markon, K. E., Watson, D., & Skodol, A. E. (2012). Initial construction of a maladaptive personality trait model and inventory for DSM-5. *Psychological Medicine, 42,* 1879-1890. https://doi.org/10.1017/S0033291711002674

Krueger, R. F., Derringer, J., Markon, K. E., Watson, D., & Skodol, A. E. (2013). The personality inventory for DSM-5—brief form (PID-5-BF)—adult. *American Psychiatric Association*.

Krueger, R. F., & Markon, K. E. (2006). Reinterpreting comorbidity: A model-based approach to understanding and classifying psychopathology. *Annual Review of Clinical Psychology*, *2*, 111–133. https://doi.org/10.1146/annurev.clinpsy.2.022305.095213

Krueger, R. F., & Markon, K. E. (2014). The role of the DSM-5 personality trait model in moving toward a quantitative and empirically based approach to classifying personality and psychopathology. *Annual Review of Clinical Psychology, 10,* 477–501. https://doi.org/10.1146/annurev-clinpsy-032813-153732

Kuppens, P. (2005). Interpersonal determinants of trait anger: Low agreeableness, perceived low social esteem, and the amplifying role of the importance attached

to social relationships. *Personality and Individual Differences, 38,* 13-23. https://doi.org/10.1016/j.paid.2004.03.006

Larsen, R. J., & Ketelaar, T. (1991). Personality and susceptibility to positive and negative emotional states. *Journal of Personality and Social Psychology, 61,* 132-140. https://doi.org/10.1037/0022-3514.61.1.132

Lau, K. S. L., Marsee, M. A., Kunimatsu, M. M., & Fassnacht, G. M. (2011). Examining associations between narcissism, behavior problems, and anxiety in non-referred adolescents. *Child & Youth Care Forum, 40*, 163–176. https://doi.org/10.1007/s10566-010-9135-1

Laursen, B., & Richmond, A. (2014). Relationships: Commentary: Personality, relationships, and behavior problems: It's hard to be disagreeable. *Journal of Personality Disorders, 28,* 143-150. https://doi.org/10.1521/pedi.2014.28.1.143

Lazarus, R. S. (1991). Progress on a cognitive-motivational-relational theory of emotion. *American Psychologist, 46,* 819-834. https://doi.org/10.1037/0003-066X.46.8.819

Lengua, L. J., & Stormshak, E. A. (2000). Gender, gender roles and personality: Gender differences in the prediction of coping and psychological symptoms. *Sex Roles: A Journal of Research, 43,* 787–820. https://doi.org/10.1023/A:1011096604861

Lilienfeld, S. O., Waldman, I. D., & Israel, A. C. (1994). A critical examination of the use of the term “comorbidity” in psychopathology research. *Clinical Psychology: Science and Practice, 1,* 71–83. https://doi.org/10.1111/j.1468-2850.1994.tb00007.x

Lin, H. J., & Yusoff, M. S. B. (2013). Psychological distress, sources of stress and coping strategy in high school students. *International Medical Journal, 20,* 672-676.

Livesley, W. J. (2003). Diagnostic dilemmas in classifying personality disorder. In K. A. Phillips, M. B. First, & H. A. Pincus (Eds.), *Advancing DSM. Dilemmas in Psychiatric Diagnosis* (pp. 153–190). American Psychiatric Association.

Lorr, M., & McNair, D. M. (1971). *The Profile of Mood States manual.* San Diego, CA: Educational and Industrial Testing Service.

Lovelace, L., & Gannon, L. (1999). Psychopathy and depression: Mutually exclusive constructs? *Journal of Behavior Therapy and Experimental Psychiatry, 30,* 169–176. https://doi.org/10.1016/S0005-7916(99)00022-1

Lutgen-Sandvik, P., & Arsht, S. S. (2014). How unaddressed bullying affects employees, workgroups, workforces, and organizations: The widespread aversive effects of toxic communication climates. In J. Lipinski & L. M. Crothers (Eds.), *Bullying in the Workplace: Causes, Symptoms, and Remedies.* (pp. 51–65). New York, NY: Routledge/Taylor & Francis Group.

Maan Diong, S., Bishop, G. D., Enkelmann, H. C., Tong, E. M., Why, Y. P., Ang, J. C., & Khader, M. (2005). Anger, stress, coping, social support and health: Modelling the relationships. *Psychology & Health, 20,* 467-495. https://doi.org/10.1080/08870440405123313339 60

Martin, J. K., Blum, T. C., Beach, S. R. H., & Roman, P. M. (1996). Subclinical depression and performance at work. *Social Psychiatry and Psychiatric Epidemiology*, *31*, 3-9.

Martin, R., Wan, C. K., David, J. P., Wegner, E. L., Olson, B. D., & Watson, D. (1999). Style of anger expression: Relation to expressivity, personality, and health. *Personality and Social Psychology Bulletin*, *25*, 1196-1207. https://doi.org/10.1177/0146167299258002

Maser, J. D., & Patterson, T. (2002). Spectrum and nosology: Implications for DSM-V. *Psychiatric Clinics of North America*, *25*, 855–885. https://doi.org/10.1016/S0193-953X(02)00022-9

Mathieu, J. E., Aguinis, H., Culpepper, S. A., & Chen, G. (2012). Understanding and estimating the power to detect cross-level interaction effects in multilevel modeling. *Journal of Applied Psychology*, *97*, 951. https://doi.org/10.1037/a0028380

Matud, M. P. (2004). Gender differences in stress and coping styles. *Personality and Individual Differences*, *37*, 1401–1415. https://doi.org/10.1016/j.paid.2004.01.010

McCloskey, M. S., Kleabir, K., Berman, M. E., Chen, E. Y., & Coccaro, E. F. (2010). Unhealthy aggression: intermittent explosive disorder and adverse physical health outcomes. *Health Psychology*, *29*, 324. https://doi.org/10.1037/a0019072

McCrae, R. R., & Costa, P. T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, *52*, 81-90. https://doi.org/10.1037/0022-3514.52.1.81

Meehl, P. E. (1962). Schizotaxia, schizotypy, schizophrenia. *American Psychologist, 17*, 827-838. https://doi.org/10.1037/h0041029

Mehl, M. R., & Pennebaker, J. W. (2003). The sounds of social life: A psychometric analysis of students' daily social environments and natural conversations. *Journal*

of Personality and Social Psychology, *84*, 857-870. https://doi.org/10.1037/0022-3514.84.4.857

Mennin, D. S., Heimberg, R. G., Turk, C. L., & Fresco, D. M. (2005). Preliminary evidence for an emotion dysregulation model of generalized anxiety disorder. *Behaviour Research and Therapy*, *43*, 1281-1310. https://doi.org/10.1016/j.brat.2004.08.008

Merikangas, K. R., Jin, R., He, J. P., Kessler, R. C., Lee, S., Sampson, N. A., ... & Ladea, M. (2011). Prevalence and correlates of bipolar spectrum disorder in the world mental health survey initiative. *Archives of General Psychiatry*, *68*, 241-251. https://doi.org/10.1001/archgenpsychiatry.2011.12

Merikangas, K. R., Mehta, R. L., Molnar, B. E., Walters, E. E., Swendsen, J. D., Aguilar-Gaziola, S., ... & Kolody, B. (1998). Comorbidity of substance use disorders with mood and anxiety disorders: Results of the International Consortium in Psychiatric Epidemiology. *Addictive Behaviors*, *23*, 893-907. https://doi.org/10.1016/S0306-4603(98)00076-8

Miller, J. D., Campbell, W. K., & Pilkonis, P. A. (2007). Narcissistic personality disorder: Relations with distress and functional impairment. *Comprehensive Psychiatry*, *48*, 170–177. https://doi.org/10.1016/j.comppsych.2006.10.003

Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, *102*, 246. https://doi.org/10.1037/0033-295X.102.2.246

Moussavi, S., Chatterji, S., Verdes, E., Tandon, A., Patel, V., & Ustun, B. (2007). Depression, chronic diseases, and decrements in health: Results from the World Health Surveys. *The Lancet*, *370*, 851-858. https://doi.org/10.1016/S0140-6736(07)61415-9

Mulraney, M., Schilpzand, E. J., Hazell, P., Nicholson, J. M., Anderson, V., Efron, D., ... & Sciberras, E. (2016). Comorbidity and correlates of disruptive mood dysregulation disorder in 6–8-year-old children with ADHD. *European Child & Adolescent Psychiatry*, *25*, 321-330. https://doi.org/10.1007/s00787-015-0738-9

Muris, P., Meesters, C., de Kanter, E., & Timmerman, P. E. (2005). Behavioural inhibition and behavioural activation system scales for children: Relationships with Eysenck's personality traits and psychopathological symptoms. *Personality and Individual Differences*, *38*, 831-841. https://doi.org/10.1016/j.paid.2004.06.007

National Institute of Mental Health (2017, November). *Any anxiety disorder*. https://www.nimh.nih.gov/health/statistics/any-anxiety-disorder.shtml

Nezlek, J. B. (2012). Multilevel modeling analyses of diary-style data. In M. R. Mehl & T. S. Conner (Eds.), *Handbook of research methods for studying daily life.* (pp. 357–383). The Guilford Press.

Nordahl, H. M., Holthe, H., & Haugum, J. A. (2005). Early maladaptive schemas in patients with or without personality disorders: Does schema modification predict symptomatic relief?. *Clinical Psychology & Psychotherapy*, *12*, 142-149. https://doi.org/10.1002/cpp.430

Papousek, I., Aydin, N., Rominger, C., Feyaerts, K., Schmid-Zalaudek, K., Lackner, H. K., ... & Weiss, E. M. (2018). DSM-5 personality trait domains and withdrawal versus approach motivational tendencies in response to the perception of other people's desperation and angry aggression. *Biological Psychology, 132*, 106-115. https://doi.org/10.1016/j.biopsycho.2017.11.010

Paradise, A. W., & Kernis, M. H. (2002). Self-esteem and psychological well-being: Implications of fragile self-esteem. *Journal of Social and Clinical Psychology, 21*, 345-361. https://doi.org/10.1521/jscp.21.4.345.22598

Pardini, D. A., & Fite, P. J. (2010). Symptoms of conduct disorder, oppositional defiant disorder, attention-deficit/hyperactivity disorder, and callous-unemotional traits as unique predictors of psychosocial maladjustment in boys: Advancing an evidence base for DSM-V. *Journal of the American Academy of Child & Adolescent Psychiatry, 49*, 1134-1144. https://doi.org/10.1016/j.jaac.2010.07.010

Pearson, K. A., Watkins, E. R., & Mullan, E. G. (2010). Submissive interpersonal style mediates the effect of brooding on future depressive symptoms. *Behaviour Research and Therapy*, *48*, 966–973. https://doi.org/10.1016/j.brat.2010.05.029

Pincus, A. L., & Ansell, E. B. (2003). Interpersonal theory of personality. In I. B. Weiner, H. A. Tennen, & J. M. Suls (Eds.), *Handbook of Psychology: Personality and Social Psychology* (Vol. 5, pp. 209–229). John Wiley & Sons.

Pincus, A. L., Cain, N. M., & Wright, A. G. (2014). Narcissistic grandiosity and narcissistic vulnerability in psychotherapy. *Personality Disorders: Theory, Research, and Treatment*, *5*, 439. https://doi.org/10.1037/per0000031

Pinto-Meza, A., Caseras, X., Soler, J., Puigdemont, D., Pérez, V., & Torrubia, R. (2006). Behavioural inhibition and behavioural activation systems in current and recovered major depression participants. *Personality and Individual Differences*, *40*, 215-226. https://doi.org/10.1016/j.paid.2005.06.021

Porcerelli, J. H., Hopwood, C. J., & Jones, J. R. (2018). Convergent and discriminant validity of Personality Inventory for DSM-5-BF in a primary care sample. *Journal of Personality Disorders*, 1-11. https://doi.org/ 10.1521/pedi_2018_32_372

Ramirez, J. M., & Andreu, J. M. (2006). Aggression, and some related psychological constructs (anger, hostility, and impulsivity): Some comments from a research project. *Neuroscience & Biobehavioral Reviews, 30*, 276-291. https://doi.org/10.1016/j.neubiorev.2005.04.015

Rappaport, L. M., Moskowitz, D. S., & D'Antono, B. (2014). Naturalistic interpersonal behavior patterns differentiate depression and anxiety symptoms in the community. *Journal of Counseling Psychology, 61*, 253–263. https://doi.org/10.1037/a0035625

Rauthmann, J. F., & Kolar, G. P. (2013). Positioning the Dark Triad in the interpersonal circumplex: The friendly-dominant narcissist, hostile-submissive Machiavellian, and hostile-dominant psychopath?. *Personality and Individual Differences, 54*, 622-627. https://doi.org/10.1016/j.paid.2012.11.021

Reichborn-Kjennerud, T., Krueger, R. F., Ystrom, E., Torvik, F. A., Rosenström, T. H., Aggen, S. H., … Czajkowski, N. O. (2017). Do DSM-5 Section II personality disorders and Section III personality trait domains reflect the same genetic and

environmental risk factors? *Psychological Medicine, 47,* 2205–2215. https://doi.org/10.1017/S0033291717000824

Reidy, D. E., Foster, J. D., & Zeichner, A. (2010). Narcissism and unprovoked aggression. *Aggressive Behavior*, *36*, 414–422. https://doi.org/10.1002/ab.20356

Romero, E., & Alonso, C. (2019). Maladaptative personality traits in adolescence: Behavioural, emotional and motivational correlates of the PID-5-BF scales. *Psicothema*, *31*, 263-270. https://doi.org/10.7334/psicothema2019.86

Ross, C. E., & Mirowsky, J. (2008). Age and the balance of emotions. *Social Science & Medicine*, *66*, 2391-2400. https://doi.org/10.1016/j.socscimed.2008.01.048

Ruiz, M. A., Pincus, A. L., & Schinka, J. A. (2008). Externalizing pathology and the five-factor model: A meta-analysis of personality traits associated with antisocial personality disorder, substance use disorder, and their co-occurrence. *Journal of Personality Disorders*, *22*, 365-388. https://doi.org/10.1521/pedi.2008.22.4.365

Russ, T. C., Stamatakis, E., Hamer, M., Starr, J. M., Kivimäki, M., & Batty, G. D. (2012). Association between psychological distress and mortality: individual participant pooled analysis of 10 prospective cohort studies. *BMJ*, *345*, e4933. https://doi.org/10.1136/bmj.e4933

Russell, J. J., Moskowitz, D. S., Zuroff, D. C., Bleau, P., Pinard, G., & Young, S. N. (2011). Anxiety, emotional security and the interpersonal behavior of individuals with social anxiety disorder. *Psychological Medicine*, *41*, 545–554. https://doi.org/10.1017/S0033291710000863

Russell, J. J., Moskowitz, D. S., Zuroff, D. C., Sookman, D., & Paris, J. (2007). Stability and variability of affective experience and interpersonal behavior in borderline

personality disorder. *Journal of Abnormal Psychology*, *116*, 578-588. https://doi.org/10.1037/0021-843X.116.3.578

Rutherford, H. J. V., & Lindell, A. K. (2011). Thriving and surviving: Approach and avoidance motivation and lateralization. *Emotion Review*, *3*, 333–343. https://doi.org/10.1177/1754073911402392

Saklofske, D. H., & Yackulic, R. A. (1989). Personality predictors of loneliness. *Personality and Individual Differences*, *10*, 467-472. https://doi.org/10.1016/0191-8869(89)90011-1

Salekin, R. T., Leistico, A. M. R., Trobst, K. K., Schrum, C. L., & Lochman, J. E. (2005). Adolescent psychopathy and personality theory—the interpersonal circumplex: Expanding evidence of a nomological net. *Journal of Abnormal Child Psychology*, *33*, 445-460. https://doi.org/10.1007/s10802-005-5726-Y

Samuel, D. B., & Widiger, T. A. (2008). A meta-analytic review of the relationships between the five-factor model and DSM-IV-TR personality disorders: A facet level analysis. *Clinical Psychology Review*, *28*, 1326-1342. https://doi.org/10.1016/0191-8869(89)90011-1

Sareen, J., Jacobi, F., Cox, B. J., Belik, S. L., Clara, I., & Stein, M. B. (2006). Disability and poor quality of life associated with comorbid anxiety disorders and physical conditions. *Archives of Internal Medicine*, *166*, 2109-2116. https://doi.org/10.1001/archinte.166.19.2109

Sargeant, M. N., Daughters, S. B., Curtin, J. J., Schuster, R., & Lejuez, C. W. (2011). Unique roles of antisocial personality disorder and psychopathic traits in distress

tolerance. *Journal of Abnormal Psychology, 120*, 987–992. https://doi.org/10.1037/a0024161

Sartorius, N., Üstün, T. B., Lecrubier, Y., & Wittchen, H. U. (1996). Depression comorbid with anxiety: Results from the WHO study on psychological disorders in primary health care. *The British Journal of Psychiatry, 168*, 38-43. https://doi.org/10.1192/S0007125000298395

Saulsman, L. M., & Page, A. C. (2004). The five-factor model and personality disorder empirical literature: A meta-analytic review. *Clinical Psychology Review, 23*, 1055-1085. https://doi.org/10.1016/j.cpr.2008.07.002

Sava, F. A. (2009). Maladaptive schemas, irrational beliefs, and their relationship with the Five-Factor Personality model. *Journal of Cognitive & Behavioral Psychotherapies, 9*, 135-147.

Schoenleber, M., Berghoff, C. R., Tull, M. T., DiLillo, D., Messman-Moore, T., & Gratz, K. L. (2016). Emotional lability and affective synchrony in borderline personality disorder. *Personality Disorders: Theory, Research, and Treatment, 7*, 211-220. https://doi.org/10.1037/per0000145

Shrout, P. E., Herman, C. M., & Bolger, N. (2006). The costs and benefits of practical and emotional support on adjustment: A daily diary study of couples experiencing acute stress. *Personal Relationships, 13*, 115-134. https://doi.org/10.1111/j.1475-6811.2006.00108.x

Sleep, C. E., Crowe, M. L., Carter, N. T., Lynam, D. R., & Miller, J. D. (2020). Uncovering the structure of antagonism. *Personality Disorders: Theory,*

Research, and Treatment. Advance online publication. https://doi.org/10.1037/per0000416

Sleep, C. E., Hyatt, C. S., Lamkin, J., Maples-Keller, J. L., & Miller, J. D. (2018). Examining the relations among the DSM–5 alternative model of personality, the five-factor model, and externalizing and internalizing behavior. *Personality Disorders: Theory, Research, and Treatment, 9*, 379-384. https://doi.org/10.1037/per0000240

Sloan, E., Hall, K., Moulding, R., Bryce, S., Mildred, H., & Staiger, P. K. (2017). Emotion regulation as a transdiagnostic treatment construct across anxiety, depression, substance, eating and borderline personality disorders: A systematic review. *Clinical Psychology Review, 57*, 141-163. https://doi.org/10.1016/j.cpr.2017.09.002

Smith, C. A., & Pope, L. K. (1992). Appraisal and emotion: The interactional contributions of dispositional and situational factors. In M. S. Clark (Ed.), *Emotion and Social Behavior.* (pp. 32–62). Sage Publications, Inc.

Sobotka, S. S., Davidson, R. J., & Senulis, J. A. (1992). Anterior brain electrical asymmetries in response to reward and punishment. *Electroencephalography & Clinical Neurophysiology, 83*, 236–247. https://doi.org/10.1016/0013-4694(92)90117-Z

Southard, A. C., Noser, A. E., Pollock, N. C., Mercer, S. H., & Zeigler-Hill, V. (2015). The interpersonal nature of dark personality features. *Journal of Social and Clinical Psychology, 34*, 555-586. https://doi.org/10.1521/jscp.2015.34.7.555

Spira, A. P., Friedman, L., Aulakh, J. S., Lee, T., Sheikh, J. I., & Yesavage, J. A. (2008). Subclinical anxiety symptoms, sleep, and daytime dysfunction in older adults with primary insomnia. *Journal of Geriatric Psychiatry and Neurology*, *21*, 149-153. https://doi.org/10.1177/0891988707317120

Stern, M., Norman, S. L., & Komm, C. (1993). Medical students' differential use of coping strategies as a function of stressor type, year of training, and gender. *Behavioral Medicine*, *18*, 173–180. https://doi.org/10.1080/08964289.1993.9939112

Strickland, C. M., Drislane, L. E., Lucy, M., Krueger, R. F., & Patrick, C. J. (2013). Characterizing psychopathy using DSM-5 personality traits. *Assessment, 20*, 327-338. https://doi.org/10.1177/1073191113486691

Stucke, T. S., & Sporer, S. L. (2002). When a grandiose self-image is threatened: Narcissism and self-concept clarity as predictors of negative emotions and aggression following ego-threat. *Journal of Personality*, *70*, 509-532. https://doi-org.ezproxy.spu.edu/10.1111/1467-6494.05015

Sullivan, H. S. (1953). *The interpersonal theory of psychiatry.* Norton.

Suls, J., & Bunde, J. (2005). Anger, anxiety, and depression as risk factors for cardiovascular disease: The problems and implications of overlapping affective dispositions. *Psychological Bulletin*, *131*, 260-300. https://doi.org/10.1037/0033-2909.131.2.260

Sutter, C., Zöllig, J., Allemand, M., & Martin, M. (2012). Sleep quality and cognitive function in healthy old age: The moderating role of subclinical depression. *Neuropsychology*, *26*, 768-775. https://doi.org/10.1037/a0030033

Swann Jr, W. B. (2011). Self-verification theory. *Handbook of Theories of Social Psychology*, *2*, 23-42.

Swearer, S. M., & Hymel, S. (2015). Understanding the psychology of bullying: Moving toward a social-ecological diathesis–stress model. *American Psychologist*, *70*, 344-353. https://doi.org/10.1037/a0038929

Swendsen, J. D., & Merikangas, K. R. (2000). The comorbidity of depression and substance use disorders. *Clinical Psychology Review*, *20*, 173-189. https://doi.org/10.1016/S0272-7358(99)00026-4

Thimm, J. C. (2010). Personality and early maladaptive schemas: A five-factor model perspective. *Journal of Behavior Therapy and Experimental Psychiatry*, *41*, 373-380. https://doi.org/10.1016/j.jbtep.2010.03.009

Thoits, P. A. (1985). Social support and psychological well-being: Theoretical possibilities. In *Social support: Theory, research and applications* (pp. 51-72). Springer, Dordrecht.

Thomas, S. P. (Ed.). (1993). *Focus on women series, Vol. 15. Women and Anger.* Springer Publishing Co.

Trull, T. J., & Durrett, C. A. (2005). Categorical and dimensional models of personality disorder. *Annual Review of Clinical Psychology*, *1*, 355–380. https://doi.org/10.1146/annurev.clinpsy.1.102803.144009

Watson, D., & Clark, L. A. (1984). Negative affectivity: The disposition to experience aversive emotional states. *Psychological Bulletin, 96,* 465–490. https://doi.org/10.1037/0033-2909.96.3.465

Watson, D., Stasik, S. M., Ro, E., & Clark, L. A. (2013). Integrating normal and pathological personality: Relating the DSM-5 trait dimensional model to general traits of personality. *Assessment, 20*, 312-326. https://doi.org/10.1177/1073191113485810

Wenze, S. J., Gunthert, K. C., Forand, N. R., & Laurenceau, J. P. (2009). The influence of dysphoria on reactivity to naturalistic fluctuations in anger. *Journal of Personality, 77*, 795-824. https://doi.org/10.1111/j.1467-6494.2009.00565.x

Wheeler, L., & Nezlek, J. (1977). Sex differences in social participation. *Journal of Personality and Social Psychology, 35*, 742–754. https://doi.org/10.1037/0022-3514.35.10.742

Widiger, T. A., & Edmundson, M. (2011). Diagnoses, dimensions, and DSM-V. In D. Barlow (Ed.), *Oxford handbook of clinical psychology* (pp. 254–278). Oxford University Press.

Widiger, T. A., & Gore, W. L. (2014). Mental disorders as discrete clinical conditions: Dimensional versus categorical classification. In Beidel, D. C., Frueh, C., & Hersen, M. (Eds.), *Adult psychopathology and diagnosis 7th edition* (pp. 3-33). John Wiley & Sons, Inc.

Wiggins, J. S. (1995). *Interpersonal adjective scales professional manual*. Psychological Assessment Resources.

Wiggins, J. S., & Broughton, R. (1991). A geometric taxonomy of personality scales. *European Journal of Personality, 5*, 343–365. https://doi.org/10.1002/per.2410050503

Wiggins, J. S. (1996). An informal history of the interpersonal circumplex tradition. *Journal of Personality Assessment, 66,* 217-233. https://doi.org/10.1207/s15327752jpa6602_2

Williams, J. E., Nieto, F. J., Sanford, C. P., Couper, D. J., & Tyroler, H. A. (2002). The association between trait anger and incident stroke risk. *Stroke, 33,* 13-19. https://doi.org/10.1161/hs0102.101625

Williams, T. F., & Simms, L. J. (2016). Personality disorder models and their coverage of interpersonal problems. *Personality Disorders: Theory, Research, and Treatment, 7,* 15-27. https://doi.org/10.1037/per0000140

Wink, P. (1992). Three narcissism scales for the California Q-set. Journal of Personality Assessment, 58, 51−66. https://doi.org/10.1207/s15327752jpa5801_5

Wright, A. G., & Simms, L. J. (2016). Stability and fluctuation of personality disorder features in daily life. *Journal of Abnormal Psychology, 125,* 641-656. https://doi.org/10.1037/abn0000169

Wright, A. G., Beltz, A. M., Gates, K. M., Molenaar, P., & Simms, L. J. (2015). Examining the dynamic structure of daily internalizing and externalizing behavior at multiple levels of analysis. *Frontiers in Psychology, 6,* 1914. https://doi.org/10.3389/fpsyg.2015.01914

Wright, A. G., Pincus, A. L., Hopwood, C. J., Thomas, K. M., Markon, K. E., & Krueger, R. F. (2012). An interpersonal analysis of pathological personality traits in DSM-5. *Assessment, 19,* 263-275. https://doi.org/10.1177/1073191112446657

Yan, C., & Dillard, J. P. (2010). Emotion inductions cause changes in activation levels of the behavioural inhibition and approach systems. *Personality and Individual Differences*, *48*, 676–680. https://doi.org/10.1016/j.paid.2009.12.002

Yanagisawa, K., Masui, K., Onoda, K., Furutani, K., Nomura, M., Yoshida, H., & Ura, M. (2011). The effects of the behavioral inhibition and activation systems on social inclusion and exclusion. *Journal of Experimental Social Psychology*, *47*, 502-505. https://doi.org/10.1016/j.jesp.2010.11.014

Zeigler-Hill, V., Mandracchia, J. T., Dahlen, E. R., Shango, R., & Vrabel, J. K. (2017). Pathological personality traits and criminogenic thinking styles. *Personality and Individual Differences, 110*, 41-48. https://doi.org/10.1016/j.paid.2017.01.021

Zeigler-Hill, V., McCabe, G. A., & Vrabel, J. K. (2016). The dark side of humor: DSM-5 pathological personality traits and humor styles. *Europe's Journal of Psychology*, *12*, 363-376. https://doi.org/10.5964/ejop.v12i3.1109