CONNECTING PERSONALITY STRUCTURE AND DYNAMICS: TOWARDS A MORE EVIDENCE-BASED AND CLINICALLY USEFUL DIAGNOSTIC SCHEME

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The purpose of this special issue of the *Journal of Personality Disorders* is to promote the integration of personality structure and dynamics towards more evidence-based and clinically useful conceptualizations of personality pathology. In this article, we describe a contemporary model of personality structure that is useful for distinguishing patients from one another and the connections between this structure and within-person dynamics that occur across different levels of an individual personality, across situations, and within situations. In so doing, we connect the personality trait tradition that has tended to emphasize stable individual differences with traditions that have tended to focus on the more dynamic aspects of interpersonal behavior and emotional experience. We then introduce the empirical articles in this special issue within this integrative context, in order to demonstrate the value in connecting personality structure to dynamics for research and practice.

The introduction of an evidence-based *structure* of individual differences into the *Diagnostic and Statistical Model of Mental Disorders* (*DSM-5*; American Psychiatric Association, 2013) by the Alternative Model for Personality Disorder (PD) diagnosis connects practice to contemporary research and offers clinicians an opportunity for significantly improved personality-based diagnosis (Krueger & Markon, 2014; Morey, Skodol, & Oldham, 2014; Zimmermann et al., 2013). Improved diagnosis has the potential to facilitate clinical formulation and enhance patient care. However, a key challenge in formulating case conceptualizations for individuals with PD involves connecting static diagnostic concepts, as measured for example by personality questionnaires or semistructured interviews, to *dynamics*, or how individuals vary from the

set point implied by their personality trait profile.[1] The goal of this special issue is to promote research integrating the structure of individual differences in personality and psychopathology with dynamic personality processes, towards a more evidence-based and clinically useful model for formulating personality disorder.

        We begin this introductory article by reviewing the structure of personality and psychopathology from a contemporary empirical perspective. We then review three kinds of personality dynamics that can be understood in terms of within-person variation in personality features with a known nomothetic structure. The first are cross-sectional dynamics that occur *across levels of personality*, such as when patients' internal experiences do not match their observable behavior or when interpersonal perception is distorted by emotional states. Second, we describe temporal dynamics that occur *across situations*, such as when patients have particular problems in certain situations but not others. Finally, we review temporal dynamics *within situations*, which involve changes in personality-relevant behavior that occur within a particular situation. In the remainder of this article, we introduce the articles in this special issue in terms of how their results demonstrate the value of integrating personality structure and one or more of these three kinds of dynamics.

THE STRUCTURE OF PERSONALITY AND PSYCHOPATHOLOGY

A large body of research supports an integrative hierarchical framework for normal and maladaptive personality dimensions (Figure 1; see Krueger & Markon, 2014; Kushner, Quilty, Tackett, & Bagby, 2011; Widiger & Simonsen, 2005; Wright & Simms, 2014). The broadest dimension, generically labeled "personality problems" in Figure 1, is what all forms of personality pathology have in common (e.g., Hopwood et al., 2011). Internalizing and externalizing dimensions that are familiar as organizing dimensions for syndromal psychopathology (e.g., Krueger, 1999) emerge at the second tier, drawing the viewer's attention to similarities between the structure of normal personality, abnormal personality, and psychopathology (Markon, Krueger, & Watson, 2005; Pincus, Lukowitsky, & Wright, 2010). At the third tier, internalizing splits into Negative Affectivity and Detachment, resulting in a three-trait scheme that is similar to models such as those of Clark (1993), Tellegen (1985), and Eysenck (Eysenck & Eysenck, 1985). The four-factor tier, which is similar to Livesley's (Livesley, Jang, & Vernon, 1998) proposal for higher order PD traits, distinguishes disinhibited and antagonistic variants of externalizing. The tier with five factors is the most commonly focused upon in contemporary personality research (Digman, 1996; Widiger & Simonsen, 2005).[2] In the

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1. We note that some dynamics are nomothetic (e.g., interpersonal complementarity, Sadler, Ethier, & Woody, 2011) whereas others are idiographic (e.g., Roche, Pincus, Rebar, Conroy, & Ram, 2014), and that the degree to which an individual's dynamics are predictable based on population patterns is an empirical question (Molenaar & Campbell, 2009).
2. Most personality models also include lower order facets that describe more specific variants of these basic domains (such as the 30 facets of the NEO instruments [e.g., Costa & McCrae, 1992] or the 25 facets

DSM-5 system, these factors are labeled Negative Affectivity, Detachment, Psychoticism, Antagonism, and Disinhibition.

Although Figure 1 was modeled after the structure of the self-report version of the Personality Inventory for *DSM-5* (PID-5; Krueger et al., 2012), it is important to point out that the structure is generally robust to specific instrumentation, reporters, and sampling variations. For example, Morey, Krueger, and Skodol (2013) derived much the same model from clinicians' descriptions of patients on the 25 specific facets of the *DSM-5* Alternative PD model that are also indexed by the PID-5. Wright and Simms (2014) reported largely the same model working with the joint structure of the PID-5, the Computerized Adaptive Test for PD (CAT-PD; Simms et al., 2011), and the NEO-3 (McCrae, Hardwood, & Kelly, 2011) in a clinical sample. In addition, variations in the hierarchy that emerge from specific instruments are generally understandable as functions of the personality characteristics sampled by those instruments. For example, the hierarchical structure of the Dimensional Assessment of Personality Pathology –Basic Questionnaire (DAPP-BQ) closely resembles the model in Figure 1, with the exception that the DAPP-BQ does not demarcate a separate psychoticism domain (Kushner et al., 2011).[3]

By virtue of being based on data on the empirical organization of maladaptive personality, the dimensional-hierarchical model in Figure 1 solves key problems that are associated with the *DSM-5* Section II scheme. Rather than trying to conceptualize patients in terms of categories that do not fit many presentations, the clinician can think about patients in terms of a profile of dimensional characteristics, at various strata of the Figure 1 hierarchy (including facet-level features that exist below the hierarchy depicted in Figure 1). For example, at the highest tier of the Figure 1 hierarchy is a general factor of personality pathology whose existence helps explain why individual PDs are highly comorbid with each other and with other psychopathological phenomena. This comorbidity is expected if PD characteristics are impacted by highly general factors (higher in Figure 1) that saturate specific characteristics (lower in Figure 1).

A recent study by Sharp and colleagues (2015) suggests that *DSM* Borderline PD criteria are good indicators of the general factor of personality pathology, at the top of Figure 1. Rather than supporting a borderline category that is separated from other PD categories, Borderline PD characteristics appear to delineate the quintessence of PD in a general sense (c.f., Kernberg, 1984). This helps explain why Borderline PD patients show diffuse patterns of extensive comorbidity, helps emphasize the seriousness of this condition, and helps explain why Borderline PD is so central in the contemporary PD literature (cf. Turkheimer, Ford, & Oltmanns, 2008). From our perspective, this work is an excellent example of how an increasingly integrative understanding of the place of the borderline construct in the general structure of personality

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of the DSM-5 Alternative Model [Krueger et al., 2012]). Despite the value of these lower order elements of personality for descriptive and predictive purposes (Krueger & Eaton, 2010; Leising & Zimmermann, 2011), in this article we focus primarily on broad trait domains as organizing rubrics.

3. This is likely because the DAPP-BQ has a single facet indexing psychotic content, labeled "cognitive dysregulation," and more than one scale is needed to identify a separable psychoticism domain (cf. van den Broeck et al., 2014).
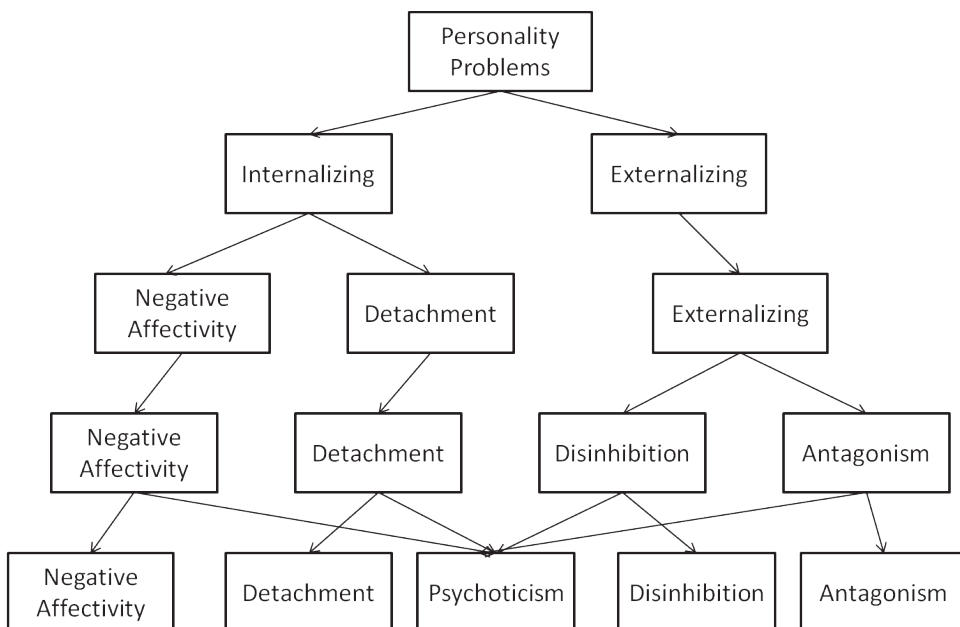
FIGURE 1. Pathological Personality Trait Hierarchy. This figure is based loosely on Wright and colleagues' (2012) examination of the Personality Inventory for *DSM-5*; certain aspects of the hierarchy may differ depending on the specific instruments being analyzed (e.g., Digman, 1996; Markon et al., 2005). It is understood that the hierarchy depicted here extends downward from the level of five domains to depict narrower trait facets, which may vary depending on the specific instrument being used.

is able to build upon the significant work done since its description in *DSM-III* (e.g., Gunderson, 2009; Leichsenring, Leibing, Kruse, New, & Leweke, 2011; Van Asselt, Dirksen, Arntz, & Severens, 2007).

CONCEPTUALIZING PERSONALITY DYNAMICS

Traits of the sort that are listed in Figure 1 have been seen by some as incompatible with personality dynamics (e.g., Clarkin & Huprich, 2011; McWilliams, 2012). In contrast, our view is that structural and dynamic accounts of personality are complementary in that an evidence-based trait structure enables a systematic consideration of dynamics (Pincus, 2005; see also Fleeson, 2001, and Revelle & Condon, 2015). From our perspective, knowledge about a person's general configuration of stable attributes facilitates predictions about how personality features change in coordination with internal (e.g., emotion regulation) and external (e.g., social behavior) processes in everyday life and in the clinic. Thus, connecting the basic building blocks of personality structure with the dynamics that characterize patient presentations is a pathway

to increasingly effective clinical formulation. As discussed above, we focus in this special issue on three kinds of dynamics: (1) cross-sectional dynamics related to different levels of personality, (2) temporal dynamics across situations, and (3) temporal dynamics within situations (cf., Pincus et al., 2014).

DYNAMICS ACROSS LEVELS OF PERSONALITY

In a seminal contribution to the problem of integrating personality structure and dynamics, Leary (1957) organized personality data into five levels, each signifying its own domain of behavior that maps onto a particular set of assessment methods. The first level is *public communication*, or observable behavior in interpersonal situations. Public communication data could be provided by informant reports (e.g., Vazire, 2006), standardized observer rating tools (e.g., Leising, Leibing, Kruse, New, & Leweke, 2011), or recordings of daily life (e.g., Mehl et al., 2001). The second level is *conscious description*, which is the direct self-report of the patient on questionnaires or diagnostic interviews. Data from this level are presumed to be colored, to a greater degree than the first level, by the individual's perceptual biases, but they may also provide a richer viewpoint than level 1 data in terms of understanding underlying motivations for certain behaviors (Wiggins, 1973). Level three involves *private perception*, as expressed in the stories people tell, their dreams, fantasies, and attributions. This kind of data, which could be assessed using storytelling tasks (Murray, 1943), life history interviews (McAdams et al., 2004), or other narrative methods (He, Veldkamp, & De Vries, 2012), is thought to focus to a greater degree than other levels on motivations that may lie outside of the person's awareness. Identifying themes in the narratives of patients is widely regarded as imperative for guiding clinical conceptualizations of patients in practice (McWilliams, 2012). Formulating narrative-based themes using valid dimensions of personality functioning (e.g., how the patient's narrative can be understood in terms of the major dimensions of personality in a particular situation), as Leary did, would allow the clinician to directly connect patient narratives to other levels of assessment data (e.g., McAdams et al., 2004). Leary's fourth level, the *unexpressed*, includes content or behavior that the person purposefully (although not necessarily consciously) avoids. The unexpressed is thought to take hold through patterns of negative reinforcement that support dysfunctional behavior. Finally, level five involves the underlying *values* that people have about how they would most like to be. Although values are similar to level 2 in that they are most directly assessed by questionnaire (e.g., Locke, 2000), Leary emphasizes that one's values will not necessarily line up with behaviors or traits.

The central feature of Leary's system was that all of these processes can be understood as variation across levels within the same structural model. We believe this idea can be fruitfully extended to the structure of personality in general as depicted in Figure 1. In contrast to obtaining a single estimate for a particular psychological trait, assessing multiple aspects of that trait (e.g., average level of behavior as well as specific problems, sensitivities, and values, across self and informant reports) offers a framework for developing and testing a variety of novel personality assessment hypotheses (Bornstein, 2002; Hopwood, Pincus, & Wright, in press; Pincus et al., 2014).

Research Examples. Two studies in this special issue focus on perceptual dynamics across levels of personality. Critically, both of the studies measure dynamic processes using personality constructs depicted in Figure 1. Carlson and Oltmanns (this issue) investigate the degree to which personality problems interfere with three kinds of perception: how a person perceives him or herself, how the other perceives the self, and how the self perceives the other's perception of the self. They find that personality pathology impacts interpersonal perception, such that individuals with more personality disorder symptoms are less accurate about how others see them and are less aware of the ways their self-perceptions differ from others' perceptions. Interestingly, they found that personality pathology generally contributed to expectations that others would see the self less favorably than is actually the case, which counters the common view that people with personality problems are unaware that others have negative views about them. These results have important implications for understanding perceptual processes associated with personality pathology, and for tailoring interpretations about the nature of insight difficulties for patients with PDs.

Sadikaj, Moskowitz, and Zuroff (this issue) focus on how the variability in affective valence across particular interactions (i.e., the individual's variability around their average level of negative affectivity; c.f., Moskowitz & Zuroff, 2004) impacts interpersonal perception. They found that variability in negative affect moderated perceptual accuracy, such that individuals who experienced more variable negative affect states tended to be both more aware of changes in their partner's behavior and more biased in seeing their partner's behavior as more like their own. This study uses event-contingent recording and multilevel modeling to integrate several kinds of dynamics, including cross-sectional impacts of affects on interpersonal perception, the influence of one's own personality features on perceptions of others, and dynamics related to interacting with the same person over time—all of which are clinically relevant patient features.

TEMPORAL DYNAMICS ACROSS SITUATIONS

Dynamic "if-then" processes are informative about when and where symptoms are likely to be expressed, because this kind of information can inform the targeting and timing of particular interventions (Eaton, South, & Krueger, 2009; Pincus, Lukowitsky, Wright, & Eichler, 2009). Increasingly, researchers are using methods that ask participants to record observations of their functioning at regular intervals (e.g., daily, at random times during the day, or following certain events) in order to identify particular patterns associated with certain kinds of psychopathology or to identify idiographic symptom triggers (e.g., Molenaar & Campbell, 2009; Trull & Ebner-Priemer, 2013). This work has been facilitated by the development of a variety of new assessment technologies capable of capturing temporal personality dynamics, such as moment-to-moment interpersonal coding (Lizdek, Sadler, Woody, Ethier, & Malet, 2012), electronic automated recording (Mehl et al., 2001), and ambulatory self-report assessment (Trull & Ebner-Priemer, 2013). These methods are complemented by novel analytic approaches that take time into account, such as

replicated multivariate time series (Beltz, Beekman, Molenaar, & Buss, 2013), lagged models (Wickham & Knee, 2013), time varying effect models (Wright, Hallquist, Swartz, Frank, & Cyranowski, 2014), spectral analysis (Sadler et al., 2009), and dynamical systems analysis (Richardson & Marsh, 2014).

Studying how individuals change across situations can lead to rich clinical insights. In a study that utilized smartphone-based intensive repeated measurements provided by a husband and wife, Roche and colleagues (2014) used person-specific analyses to identify particular patterns of interaction that were highly informative for formulating the husband's problems. Specifically, the husband reported being comfortable while dominant and leading in social interactions, whereas engaging in a reciprocal submissive role with a dominant other was a significant blow to his self-esteem. Moreover, although he tended to see most peoples' dominance and hostility as independent in social interactions, he had a strong tendency to see his wife's dominance as concurrently hostile when interacting with her. Essentially, he was threatened by his wife's assertiveness, and this inner threat led him to perceive her as maleficent, to experience inner turmoil and lower self-esteem, and to have difficulty responding cooperatively. These data led to a specific therapeutic goal: The patient should practice being submissive and cooperative, particularly with his wife, and his wife should try to remember that his hostile behavior is often a clue that he is feeling vulnerable and threatened on the inside.

Studying personality variables in this manner obliges the researcher to think of traits, not as static dispositions, but as dimensional set points around which behaviors are expected to vary to some degree over time and across situations in systematic ways (e.g., Fleeson, 2001; Harkness, Reynolds, & Lilienfeld, 2014; Hopwood, Wright, Ansell, & Pincus, 2013). This is intuitive: A person with a moderate score on Negative Affectivity is not immune to emotional extremes. Such a person may have a full range of emotional experiences that, on average, result in a score close to the middle of a population distribution on a trait measure. Likewise, a person may feel anxious about some things but not others, or may only be partly aware of their negative emotions. Thus the trait score points to a useful abstraction. This abstraction characterizes general tendencies, but not necessarily the individual's state experience at any particular moment. Yet the conjunction of general tendencies and experiential states of the patient is often a central focus of the clinician.

Research Examples. Two studies in the special issue focus on dynamics that occur across situations. Miskewicz and colleagues (this issue) tested the impact of eight particular situational triggers on Borderline PD symptoms, sampled several times per day. They identified within-person connections between these triggers and symptoms, and further that baseline symptom severity interacted with triggers in producing daily symptoms. This pattern suggests situation-behavior contingencies that are exacerbated by or indicative of borderline pathology. They also found that baseline borderline status predicted the occurrence of environmental triggers, consistent with the hypothesis that BPD persists, at least to some extent, through a proximal mechanism of selecting, construing, and hyper-reacting to specific situations. These findings are important both for highlighting complex interactions between dispositions

and situations and for shedding light on the maintenance of pathological personality problems.

The Wright, Hopwood, and Simms study (this issue) focused on the impacts of dispositional problems and daily stressors on daily fluctuations in interpersonal behavior and affective experiences. Importantly, these interpersonal behaviors and affective experiences were measured using dimensions that align empirically (Ansell & Pincus, 2004; Russell, 1980; Watson & Tellegen, 1985) with dimensions in Figure 1. Interpersonal dimensions were dominance vs. submission (interpersonal aspects of extraversion vs. detachment) and warmth vs. coldness (agreeableness vs. antagonism); affective dimensions included negative affect (negative affectivity) and positive affect (affective aspects of extraversion vs. detachment). Wright and colleagues ask a question that is central to clinical formulation: how much do stable personality features and day-to-day stressors affect how a person will act and feel on a given day? Answering this question for a particular patient would go a long way in helping them identify risk factors for problematic behavior and exacerbation of symptoms, discover particular patterns that interfere with functioning, and develop better alternatives. Overall, Wright and colleagues find that a large proportion of variance in interpersonal behavior and emotional experience is due to daily fluctuations, which are more strongly related to daily stress than dispositional measures of personality problems. These findings highlight the clinical importance of considering dynamic aspects of personality.

TEMPORAL DYNAMICS WITHIN SITUATIONS

Processes that occur within situations, such as emotionally charged conversations with a loved one or psychotherapist, are also highly important for conceptualizing cases, and in fact often represent the basis for clinical formulation (e.g., Benjamin, 2003; Luborsky & Crits-Cristoph, 1998; Schauenburg & Grande, 2011). Powerful examples of such processes can be found in Benjamin's (1996) approach to diagnosing PDs, which focuses on the "songs" written during early interactions with caregivers and edited during social development. For instance, she describes patients with submissive and hostile (i.e., passive-aggressive) tendencies as having a history of strong nurturance and concern that is supervened by an abrupt loss of nurturance, leading to power sensitivity and inner feelings of deprivation. Expressions of agency or autonomy were met with harsh punishments and blame, leading to the tendency to sulk and to promise compliance (which is motivated to avoid others' scorn) without following through (as a feeble expression of autonomy). Such formulations are especially helpful for understanding the complex and often confusing patterns that are observed in a therapeutic setting, and knowing what to do about them (Anchin & Pincus, 2010; Cain & Pincus, in press; Hopwood et al., 2013; Pincus & Hopwood, 2012). For instance, if a patient fails to comply with a clinician's homework assignment, a standard approach might be to coach that patient to do better next time. However, in the case of a hostile-submissive patient, this approach may feed the pathological dynamic by emphasizing the patient's failure and his perception of the clinician's disappointment. A more dynamically sensitive intervention might involve asking

the patient, "How do you understand your not having done the homework?" Rather than playing into a dynamic in which the therapist is the critical and disappointed taskmaster and the patient doesn't have the power to assert his needs directly, this question emphasizes the patient's autonomy in deciding whether or not doing the homework would be beneficial for him, and the corresponding need to accept the consequences of his decision.

Research Example. In this special issue, Sadler and colleagues use a novel coding technology capable of capturing momentary changes in interpersonal behavior (Lizdek et al., 2012) to examine an interaction between a psychotherapist and a patient. This work adds to an emerging literature on momentary interpersonal dynamics that occur in the consulting room (Altenstein, Krieger, & Grosse Holtforth, 2013; Thomas, Hopwood, Ethier, & Sadler, 2014; Tracey, Bludworth, & Glidden-Tracey, 2012). The continuous stream of data provided by moment-to-moment assessment allows for the operationalization of variability in warmth and dominance as the session unfolds and to connect the patterns that characterize each person's behavior. Sadler and colleagues demonstrate how to use this kind of data to examine patterns of association between dominance and warmth within and across members of a therapy dyad as well as factors that moderate the entrainment of recurring interpersonal patterns.

DYNAMIC CASE FORMULATION: ASSESSING DIFFERENT DYNAMICS AT ONCE

Benjamin (1993, 2003) proposed that fundamental developmental motives (e.g., attachment, individuation) and traumata (e.g., abuse, loss) catalyze social learning through modeling. Three developmental "copy processes" describe the ways in which early interpersonal experiences are internalized as a function of satisfying developmental goals. The first is *identification*, which is defined as "treating others as one has been treated." The second copy process is *recapitulation*, which is defined as "maintaining a position complementary to an internalized other." This can be described as reacting as if the internalized other is still there and in control of things. The third copy process is *introjection*, which is defined as "treating the self as one has been treated." By treating the self in introjected ways, the internal interpersonal situation may promote security and esteem (see Loevinger's [1966] first principle and Benjamin's [1996] concept of psychic proximity). Identification, recapitulation, and introjection have been empirically supported (Critchfield & Benjamin, 2008, 2010), and the impact of these socially learned patterns may lead to significant distortion and dysregulation in interpersonal functioning (Hopwood et al., 2013; 2015; Pincus & Ansell, 2003).

Although many theorists have emphasized the importance of cyclical maladaptive cycles developed during childhood that are thought to impact current functioning (e.g., Kiesler, 1983; Strupp & Binder, 1984; Wachtel, 2014), clinically sensitive, efficient, and reliable methods for assessing these dynamics have proven elusive. Critchfield, Benjamin, and Levenick (this issue) address this issue with data on a formulation method organized around identifying patterns of

identification, recapitulation, and introjection in the diagnostic process. This method provides a model for connecting how interactions from the past carry over into the present day, consistent with the assumptions of Benjamin's developmental learning and loving theory (1993, 2003) and her therapeutic approach.

To the degree that past interpersonal situations are impacting current behavior, they are doing so at a level that may not be in the individual's awareness. Thus it becomes necessary to assess personality dynamics across conscious and implicit *levels of personality* in order to identify and quantify perceptual distortion. As these kinds of patterns are likely to generalize across situations, related patterns are likely to be observed using various methods that assess dynamics that occur *across situations*. Critically, as described in the Critchfield and colleagues article (this issue), this kind of formulation lends itself to developing and testing specific hypotheses about dynamic patterns that play out *within situations*, with the assumption being that patterns learned in past relationships will generalize, maladaptively in the case of individuals with PDs, to current relationships.

PUTTING IT ALL TOGETHER

A major premise of this article is that personality structure provides a framework within which to make principled decisions about what personality variables to assess and how to assess them (Graber, Laurenceau, & Carver, 2011). It is notable that research using ambulatory assessment methods is often organized around dimensions of affective or interpersonal functioning with direct connections to variables in Figure 1. For instance, interpersonal researchers such as Sadikaj, Roche, and their colleagues generally use the interpersonal circumplex (IPC) model (e.g., Moskowitz & Zuroff, 2004). The IPC's dimensions of dominance and warmth can be readily integrated with trait structure (Ansell & Pincus, 2004). Likewise, affect researchers generally assess emotions that are structured by two-dimensional models emphasizing affective valence (alternatively, negative affect) and arousal (alternatively, positive affect; e.g., Trull et al., 2008), two dimensions that similarly align with basic traits (Russell, 1980; Watson & Tellegen, 1985).

Figure 2 visually depicts the specific connections between the dispositional traits that populate the fifth tier of the Figure 1 hierarchy and evidence-based models of interpersonal behavior and affective experience that are commonly used to investigate dynamic processes that unfold over time. Although any dispositional trait can exert influences on interpersonal behavior or emotion in a given context (as indicated by the dashed arrows in Figure 2), the primary dimensions of the interpersonal and affect circles align empirically with basic traits in between-person research.[4] Specifically, agreeableness vs. antagonism is a variant of the warmth vs. coldness dimension on the IPC. Extraversion

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4. Note that between-person associations such as those depicted in Figure 2 do not guarantee a similar within-person structure, on average or for any particular individual (Fournier, Moskowitz, & Zuroff, 2009; Roche, Pincus, Hyde, Conroy, & Ram, 2013). Connections between dispositions and behaviors at the within-person level are an important and active area of investigation.
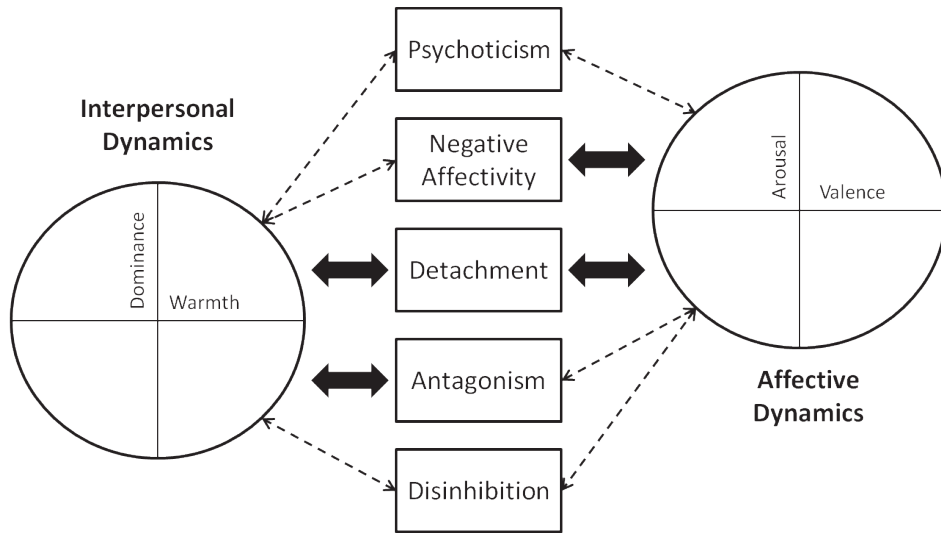
FIGURE 2. Connecting Trait Domains to Interpersonal and Affective Dynamics by Common Latent Dimensions. Bold arrows indicate dimensions that provide the primary orienting connections between traits and the interpersonal and affective circles. Dashed arrows imply connections between non-primary traits and interpersonal functioning and affective experiences. Specifically, interpersonal aspects of Detachment = low Dominance and Antagonism = low Warmth on the Interpersonal Circle, whereas emotional aspects of Detachment = low Arousal and Negative Affectivity = low Valence on the Affective Circle.

vs. detachment is a broad trait with both emotional (e.g., excitement seeking, activity) and interpersonal (e.g., gregariousness, assertiveness) aspects. The interpersonal aspects of extraversion vs. detachment can be understood as a variant of the dominance vs. submissiveness dimension on the IPC. The affective aspects of extraversion vs. detachment align empirically with the arousal dimension used by basic emotion researchers. Finally, negative affectivity can be understood as a set point for affective valence in dynamic models of mood. Because of the empirical connections between dispositional traits and these models of personality variability, the interpersonal and affective circles can be used to investigate complex patterns of behavior, while maintaining the structural integrity of personality as depicted in Figure 1.

It is important to recognize that connections between the traits and systems in Figure 2 are "fuzzy" for a variety of reasons. One involves basic semantics, insofar as using different terms to refer to similar dimensions (e.g., negative affectivity as opposed to affective valence) increases the reader's cognitive load. This issue can be exacerbated by heterogeneity in factor rotations across studies or theoretical models that nevertheless identify essentially common dimensions. A second reason has to do with the fact that research on the connections between personality dispositions and dynamics is new and ongoing, so a tightly specified model about these connections would be premature at this point. Indeed, the goal of this special issue is to promote

research that can lead to a more evidence-based model connecting dynamics to personality structure. A third reason has to do with the relative breadth and focus of these dimensions. For instance, as extraversion vs. detachment is a broad trait that is central to both interpersonal behavior and affective experiences (DeYoung, Quilty, & Peterson, 2007; Yik & Russell, 2004), it is "split apart" in the interpersonal and affective circles as described above, which creates some potential for confusion. Despite these issues, we believe that connecting dispositions to dynamic systems can lead to a highly generative and holistic model of personality and related dysfunction. However, we must beseech the reader to focus on the big picture even as some details remain nebulous at present.

CASE EXAMPLE

We conclude with the case of a 26-year-old female student we will call Monika to illustrate the value of connecting personality structure and dynamics (see also Bach, Markon, Simonsen, & Krueger, 2015). Monika, who was recently described in detail by Zimmermann and colleagues (2013), was treated in an inpatient psychotherapeutic unit for recurrent depressive episodes, newly emergent panic attacks, and a history of chronic interpersonal problems. Monika received an Axis II diagnosis of PD Not Otherwise Specified (PD-NOS), a minimally informative diagnosis whose prevalence in applied practice (Verheul, Bartak, & Widiger, 2007) is a salient example of the limitations of the *DSM-5* Section II approach to PDs. Although Monika appeared to meet *DSM-5* Section III general criteria for PD, she did not fit well into any of the specific Section III categories either. Instead, clinician ratings of *DSM-5* traits based on viewing a 1-hour interview (OPD Task Force, 2008) suggested that a specific mixture of Negative Affectivity (e.g., suspiciousness), Antagonism (e.g., hostility) and Detachment (e.g., intimacy avoidance) characterized her way of feeling and interacting with other people.

But what led to this configuration? The personality assessor wishing to go beyond the diagnosis of PD-NOS generally hopes to understand what has contributed to Monika's depression, panic, and chronic interpersonal problems, how and in what contexts they manifest in Monika's daily life, and what currently maintains them. There are surely dispositional aspects to her etiology. In addition, Monika was often bullied at school and generally felt like an outsider. When she fought back, she was blamed and punished by teachers and caregivers. She also experienced the death of a younger brother, which was a loss so significant that she was hospitalized at the time. In this developmental milieu, we see the roots of Monika's interpersonal problems, in which she characteristically responded to others who were hostile and dominant by passively withdrawing, with her inner turmoil only coming to the surface under stress. Her primary relational patterns are hostility (Identification: she is cold and dominant and others respond by retreating to cold submission, suggesting some identification with those who have been hostile to her in the past) and suspiciousness of maltreatment (Recapitulation: she sees others as cold and dominant and responds with cold submissive behavior, just as she responded to others' aggressive

or abusive behavior in the past), leading to avoidance and rejection of close relationships, as she would reportedly become panic stricken or aggressive if someone wanted to befriend her.

In current interpersonal situations, Monika exhibits the core features of PD from an interpersonal perspective (Hopwood et al., 2013), specifically, chronic dysregulation in interpersonal situations (fear, anger) arising from chronic distortions of her perception of self and other (anticipating attack or loss, needing to fight or withdraw to feel secure). In the first stage of her interpersonal interactions, Monika distortedly perceives others as potentially maltreating or rejecting. She sees herself as weak and ineffectual and experiences intense anxiety. This position gives way to a second stage in which she becomes explosive in a proactive effort to protect herself. However, this typically leads to others' detachment, and she then becomes withdrawn and depressed. If others approach and offer help, they evoke the first pattern, again raising her anxiety about being maltreated (which amounts to a return to the first stage). Over time, this behavior becomes socially reinforced because of its impact on others (though Monika has limited awareness of this process). Monika's suspiciousness and hostility disrupt interpersonal relations and confound potential friends. Regardless of how someone approaches, Monika recapitulates her earlier experiences, fears potential threats or rejection, and becomes hostile or withdraws. Not only does she fail to provide complementary interpersonal warmth towards others that could enhance relationship formation, her self-protective behavior now pushes for others to "back off" themselves, sometimes angrily so, leaving her chronically feeling rejected, uncared for, and negatively judged.

Monika's experiences of depression and panic can be understood more clearly in this formulation, which leads to clear and temporally specific targets for intervention (Cain & Pincus, in press; Pincus & Hopwood, 2012). Further, contemporary assessment technology from personality science could be used to help Monika. For instance, given that Monika lacks awareness of her hostility and its impact on others, she and her therapist may both code parts of their psychotherapy sessions using the continuous assessment method employed by Sadler and colleagues (this issue) in order to examine points of agreement and disagreement about their interaction. These data could be connected to data collected across situations, as in the Fleeson, the Sadikaj and colleagues, and the Wright and colleagues studies in this special issue, to help illuminate similarities and differences in her interpersonal and affective patterns across different types of situations.

CONCLUSION

The organization of the *DSM-5* Section III alternative model is a key step in returning personality to the center of the diagnostic enterprise and refocusing assessment, diagnosis, and case formulation on whole people rather than isolated disorder concepts (Cuthbert & Kozak, 2013; Krueger, 2013; Krueger, Hopwood, Wright, & Markon, 2014). The next step for clinical personality assessment involves using the empirical structure of personality to identify,

assess, and study the rich dynamics that are of central concern in clinical formulations. This kind of integration has significant potential to enhance diagnosis and clinical practice. However, this is a big challenge because many of the assessment and analytic methods for integrating structure with dynamics are relatively inaccessible and cost-inefficient for the everyday clinician. We xbelieve that a first step in meeting this challenge is developing tractable theoretical and assessment frameworks for integrating structure and dynamics, and orienting the field towards the value of this integration as we have emphasized throughout this article. In the remainder of this special issue, the six articles described briefly above build upon this introduction by demonstrating the power of integrating personality structure and dynamics using multimethod assessments and sophisticated analytics. We hope this special issue contributes to the next generation of research and practice, which we believe will have a significant impact in bringing personality science to bear on the problem of mental health.

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