

RUNNING HEAD: Emotional underpinning of personality pathology

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The emotional underpinnings of personality pathology: Implications for psychotherapy

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Abstract

The present theoretical article elaborates the core thesis that personality pathology may be underpinned by problematic emotional processing. Personality pathology may be understood from a transdiagnostic perspective, moving towards a fluid and process-based definition. We assume that three main types of emotional processing explain the symptoms observed in clients with personality pathology. They are a) difficulties with emotion regulation, i.e., a high emotional arousal or a lack of emotional arousal; b) difficulties in the interpersonal impact of emotional processing; c) difficulties in emotion-informed meaning-making. A synthetic account of the empirical evidence of these problem areas associated with personality pathology is offered, by referring to studies using psychological and neurobiological methodologies and by using clinical illustrations. We discuss the centrality of emotional and memory transformation processes as potential mechanisms of change in treatments. The final part of the article elaborates psychotherapeutic interventions consistent with a transdiagnostic perspective of personality pathology focused on emotion, by presenting ten specific therapeutic tasks developed to foster change. These interventions have been developed and adapted in the context of emotion-focused therapy.

Public Health Significance:

- Personality Pathology may be explained by specific emotional processes.
- Personality Pathology may be treated with emotion-focused interventions.

Key-Words: Personality Pathology; Emotion; Emotion-focused Therapy; Transdiagnostic; Emotional Processing

A transdiagnostic challenge

The field of personality disorders is undergoing a radical change towards a dimensional conception, however, it remains unclear what the emotional underpinnings of personality disorders are and how these can be used to inform treatment. Since early writings by Allport (1937), the concept of personality has been divided into two facets: a) what personality “is” (i.e., trait perspective) and b) what personality “does” (i.e., functioning perspective). On the one hand, the trait perspective has yielded a number of conceptualizations and debates, up until the inclusion of the Alternative Model in the DSM-5 (American Psychiatric Association, 2013) and the dimensional model anticipated for ICD-11 (Herpertz et al., 2017), both with five (non-identical, but partially overlapping) dimensions aiming to describe what constructs are important to consider when conceptualizing what personality disorder *is* (i.e., for DSM-5, these are for the Criterion B the maladaptive traits of negative affectivity, detachment, antagonism, disinhibition and psychoticism). This dimensional conception has the major advantage of considering personality and personality pathology on a continuum, from non-clinical manifestations to the most severe personality disorders. On the other hand, the functioning perspective on personality has not garnered as much constant scientific interest, nevertheless, global functioning, including adaptive functioning, is part of the current Alternative Model in the DSM-5 in criterion A (American Psychiatric Association, 2013; Bender, 2019; Clark et al., 2017; Widiger et al., 2019) and explains what personality *does*. The diagnosis of a personality disorder may be established in different ways in the future, different from the traditional categorical approach which has been discussed as being insufficient from a validity viewpoint (Hopwood et al., 2015; Ofrat et al., 2018).

A dimensional model of pathological personality is consistent with a broader transdiagnostic perspective on psychopathology and treatment (Kennedy & Barlow, 2018;

Kring & Mote, 2016; Ruggero et al., 2019; Widiger et al., 2019). A transdiagnostic perspective is anchored in the observations that there are problems with the reliability of diagnostic classifications, with co-morbidity of disorders, with migration of the diagnoses, and with a treatment response where different disorders respond to the same therapeutic agent (Kennedy & Barlow, 2018). This leads to the assumption that symptomatic expression may be more likely phenotypical than substantial and that similar and/or shared underlying psychopathological processes may be responsible for the varied symptom expressions. Indeed, a significant line of research showed that psychopathology presentation as classified by the major diagnostic systems can be conceptualized on as a single dimension that may be referred to as a general *p* factor (Caspi et al., 2014; Caspi & Moffit, 2018). This approach does not suggest that all psychopathological presentations are an expression of one disorder but rather that they are present on a continuum from the norm to psychopathology with genetic, as well as developmental and environmental factors, shaping the actual presentation at a time (Lahey et al., 2017). While these conceptions have also been criticized on empirical and theoretical grounds (Fried et al., 2021; Helle et al., 2020), it remains an open question to what extent the distinct disorders share common underlying mechanisms. In the case of personality pathology, factor analyses suggest a bi-factor structure of its organization, extracting a general factor (the so-called “g-PD”) shared across all diagnostic categories of personality disorders (APA, 2013), and a host of more specific factors (Convay et al., 2015; Hopwood et al., 2011; Oltmans et al., 2018; Sharp et al., 2015; Williams et al., 2018; Wright et al., 2016). While these conceptualizations clearly point towards the future of empirically grounded psychopathology, including the already cited HiTOP initiative (Ruggero et al., 2019), the specific moderating processes involved in predicting treatment response, or explanatory concepts relevant to specific client-driven fluid and process-based interaction remain unaddressed. A focus on specific situation-bound processes, grouped within adaptive-

functional domains, hold promise in this regard for adding precision when it comes to explain who benefits under which conditions and how from psychotherapy.

Implications for psychotherapy: the present paper

The major implication for psychotherapy of the transdiagnostic challenge outlined above is that treatments are being developed that target a shared mechanism theoretically assumed to be responsible for similar symptom-level presentations. An example of such a treatment is the unified protocol (Barlow et al., 2017), a treatment focused on emotional underpinnings – negative affectivity (or neuroticism), negative appraisal of emotions, and avoidance and/or dampening of negative emotions – as present in depression, anxiety disorders (social anxiety, generalized anxiety, specific phobias, panic disorder) and related disorders such as post-traumatic stress disorder and obsessive-compulsive disorder. The unified protocol is particularly relevant as it posits emotion regulation as its central mechanism of change from a transdiagnostic perspective (Barlow et al., 2007; Cludius et al., 2020; Shepes et al., 2015), and a meta-analysis found moderate effect sizes for change in emotion regulation in these treatments across a variety of psychological disorders (Sakiris et al., 2019). While the majority of explicitly transdiagnostic treatments were developed for clusters of what is currently conceptualized as similar disorders (e.g., neurotic disorders in Barlow et al., 2017; eating disorders in Fairburn et al., 2008), a few have been developed for emotion regulation difficulties in personality disorders (Gratz & Gunderson, 2006; Linehan, 1993; Sakiris et al., 2019; Sauer-Zavala et al., 2014). Of note, other transdiagnostic treatments for personality pathology target explicitly other generic mechanisms, such as mentalizing (Luyten et al., 2020; Karterud et al., 2019; Peterson et al., 2016) and identity formation (Kernberg et al., 1995; Levy et al., 2015): although conceptually related to emotional processing, the latter potential mechanisms will not be discussed in this review.

In the present paper, we will discuss the underlying core emotional processes that may contribute to personality pathology, and we will present psychotherapeutic interventions focusing on emotion which will tackle these core emotional processes (Sauer-Zavala et al., 2014; Timulak & Keogh, 2019; 2021). Emotional processing difficulties present in personality pathology are understood on a continuum with the normative difficulties and suffering, as well as on a continuum with other disorders with personality pathology being defined by the severity and an ingrained nature of the difficulties in emotional processing. By focusing on emotional processing difficulties in personality pathology, we assume, and we will illustrate, that these difficulties are central, but it remains unclear whether these difficulties are the most central for explaining personality pathology (nor more central than cognitive processes, motivational factors, internal representations, identity foundations). We observe that the focus on emotional processing is consistent with the functional perspective of what personality *does*, i.e., emotional processing may explain the underpinnings of the functional links of the individual's adaptive (vs maladaptive) functioning's impact on the social world; in addition, emotional processing by its fine-grained moment-by-moment definition, extends the functional perspective to a focus on the fluidity of situation-bound processes of bodily felt states. By focusing on personality pathology, we further assume, and we will illustrate, that these disorders are not the only ones affected by emotional processes, but emotional processing most notably contributes to severity of their clinical presentations, as compared with other psychological disorders (i.e., anxiety and depressive disorders). More specifically, we posit three major types of difficulties involving emotional processing, which are: a) difficulties with emotion regulation, i.e., a high emotional arousal or a lack of emotional arousal; b) difficulties in the interpersonal impact of the emotional processing; c) difficulties in meaning-making part of emotional processing.

We adopt a constructivist perspective (Greenberg & Pascual-Leone, 1995) and assume that personality pathology is the dynamic result of situation-bound fluid emotional processing difficulties in the three outlined functional domains. We assume a functional perspective on emotion – as adaptive system –, by addressing the general question of what emotional processing “does” to personality (i.e., how emotional processing affects, co-determines – together with other mechanisms – or influences personality). Consequently, we assume that a focus on emotional processing may be productive, under specific circumstances, for bringing about lasting change and relief, pointing towards emotional processing as a central mechanism of change across modalities of psychotherapy from a transdiagnostic perspective (Castonguay et al., 2019; Peluso et al., 2018).

The importance of emotional processing explaining personality pathology

In a constructivist conception on the impact of emotional processing on personality and its pathology, both neurobiological and meaning-making determinants interact in a mutually determining manner to create, constantly and time and again, a new synthesis: the individual’s momentary bodily felt sense (Greenberg, 2019; Greenberg & Pascual-Leone, 1995). This subjective feeling denotes the client’s moment-by-moment emergent knowledge (i.e., “experiencing”) which is immediately informed by the state of their body. Our assumption is that this somatic-cognitive-emotional process and its social-interpersonal representation is central for the construction of personality and the development of personality pathology (Levy et al., 2015; Kramer, 2019; Schmahl et al., 2014; Schnell & Herpertz, 2018). It is in the emotional experiences where we experience ourselves, the others, and the world around us, it is these emotional experiences that we are trying to make sense of, and it is with the expression of these experiences and actions stemming from them that we impact significant others. The term used for this complex process is emotional processing (Greenberg, 2016). It appears that emotional processing – as bodily anchored processes in the

immediacy – may be understood as an essential building block of other, more complex and cognitively mediated, components explaining personality pathology, for example, representations of the Self and Others, identity difficulties, socio-cognitive and communicative functions, the development of attachment patterns, as well as aspects of temperament and personality traits.

The construction of personality and the development of personality pathology takes source in the emotion-underlying adaptive functions of the human brain. For emotion regulation function in BPD for example, a number of neurofunctional circuits have been discussed (Bertsch et al., 2018). For instance, central to the detection of novelty and relevance to the individual's goals and needs appears to be the amygdala, although meta-analyses are inconsistent in its role for explaining emotion dysregulation in BPD (Ruocco et al., 2012; Schulte et al., 2016). While the cognitive tasks used in the meta-analyzed studies may partially explain these divergent results, these may also be due to different sampling procedures (in addition to the likely impact of pharmacotherapy on the reactivity of the amygdala). Specific modulatory effects exerted on the amygdala in the context of emotion regulation are known to be located in the circuitry of orbital and medial regions of the pre-frontal cortex, along with the lateral pre-frontal cortex where functional circuitry related with goal-relevant decisions may be found (Bertsch et al., 2018; Macnamara et al., 2018).

Similarly, expectation of a reward (i.e., positive affective response from other) that may be relevant for personality difficulties is associated with neuronal activation in the ventro-medial pre-frontal cortex, as well as in the ventral striatum (i.e., nucleus accumbens; Denny et al., 2018), while the anterior cingulate cortex is discussed as a center for generic downregulation in the brain (including in affective tasks) and its posterior part is part of the default mode network with functions related to internal state processing and the processing of emotional salience. Ventral and dorsal regions of the anterior cingulate are associated with

increased efficiency in emotional processing. The insula is associated with the processing, in particular the subjective awareness, of personality relevant emotions, such as fear, shame, disgust and contempt (Bertsch et al., 2018; Macnamara et al., 2018).

Also, clinically relevant for BPD, aggressiveness, observed more often among men, meeting criteria for this disorder is underpinned by an activated left amygdala, as well as activation in the lateral orbitofrontal and dorsolateral prefrontal cortices when these individuals are confronted with a task involving social rejection (Herpertz, Nagy, et al., 2017). More generally, impulsive aggression has two additional potential neurofunctional circuits: one based on a deficiency in the reward and reinforcement system (linking the striatum with the cingulate and orbito-frontal cortices) and one based on a problematic social cognition, empathy and mentalizing system (linking parietal and frontal cortices; Lee et al., 2018).

These examples illustrate neurobiological evidence for emotion dysfunction in personality pathology. It then follows that the process of integrating disruptive emotional experiences into more productive emotional processing has the potential of being an important mechanism explaining symptom change in psychotherapy for clients with personality pathology (Castonguay et al., 2018; Goodman et al., 2018; Kramer et al., 2020; Marceau et al., 2019; Peluso et al., 2018; Rudge et al., 2020).

The types of emotional processing difficulties underpinning personality pathology

We posit three components of emotional processing that are transdiagnostically shared across various pathological expressions of personality. They involve a) difficulties with emotion regulation, i.e., under- or over-regulation; b) difficulties in the interpersonal impact of the emotional processing; c) difficulties in meaning-making part of emotional processing. As much as on the descriptive level the functioning and trait perspectives of personality

interact (Bender, 2019), as much we assume that these three components of emotional processing functionally co-determine maladaptive personality traits.

Emotional processing characterized by (over- or under-) regulation of emotions.

Difficulties in emotion regulation have generally been linked with psychopathology from a transdiagnostic perspective (Kring & Sloan, 2010; Sheppes et al., 2015). A stage-model of emotion regulation has been put forward by Sheppes et al. (2015) which differentiates between difficulties with the identification (e.g., biases towards threat in anxiety, lack of representation of emotion states), selection (e.g., giving positive value to dysfunctional strategies up for choice, not wanting to engage in specific emotion regulation, see Millgram et al., 2020), implementation (e.g., overvaluing worry as regulatory strategy in action) and monitoring of this activity (e.g., lack of skills to interrupt rumination). More broadly for our purpose, we differentiate between two complementary dysfunctional operations: a) under-regulation and over-regulation of emotion.

Lack of control over emotions is a chief complaint of many clients with BPD and other PDs (Linehan et al., 2007; McMMain et al., 2010). It encompasses heightened sensitivity to emotion, labile negative affect and maladaptive emotion regulation strategies (Carpenter & Trull, 2013; McMMain et al., 2010). For example, Sara, a client with BPD, describes that she lacks trust in her boyfriend when they separate, and says: “My boyfriend is lying to me and I can’t take it anymore. He took my two kids and went to spend the week-end at his parents’ house, without informing me. I accepted it several times, and I accepted it time and again, but at this point, I exploded. I yelled at him, I could not do differently. I was so tense inside that it needed to get out of me, so that I could continue on with my day. It was too much to take”. Such under-regulation of emotions in the therapeutic session in Sara’s case may be explained by her difficulty to lower a high emotion arousal. Note that in Sara’s case, in addition to the under-regulation observed when she “exploded”, there is evidence for over-regulation of

anger when she “accepted it time and again”; both components of problematic emotional regulation may be found in the same individual, side by side.

Emotional under-regulation in the form of global distress - characterized by hopelessness, helplessness and anger - is common among clients with BPD (Berthoud et al., 2017). Linehan et al. (2007) reported that clients with BPD had a greater sensitivity to emotional cues (i.e., low threshold of response to emotional stimuli) than healthy controls, an enhanced emotional reactivity (i.e., a marked emotional intensity), as well as a prolonged activation of emotional states (i.e., a difficulty returning to their emotional baseline). All composed together represent an under-regulation of emotion pertaining to BPD. Increased levels of overwhelming anxiety can at times be found, for instance, in some clients with avoidant, dependent and obsessive-compulsive personality disorder (Kramer & Pascual-Leone, 2018).

We hypothesize that difficulties with emotion regulation may explain negative affectivity, disinhibition and detachment trait domains of the alternative model of personality disorders (AMPD) in the DSM-5 (APA, 2013). For instance, Schulze et al. (2011) collected studies on neurobiological evidence of emotion dysregulation related to BPD and concluded that there was a general lack of modulatory capacity in down-regulating negative emotion (compared to healthy controls) which was substantiated by the attenuated activation of the left orbitofrontal cortex and an increased activation of the bilateral insula. By differentiating between automatic mentalizing and controlled mentalizing in clients with BPD, Luyten et al. (2018) explain that different processes may be involved depending on whether the emotional arousal is overly heightened (i.e., in this case, automatic processing may result), vs. not (i.e., in this case, controlled processing may result). While our focus here is on the explanatory relevance of different levels of arousal themselves, as an affective, bodily anchored, building block for the construction of personality – and less on the differentiation of the consequences

(the quality of socio-cognitive processes, such as mentalizing) – we hypothesize that the arousal level may be crucial for explaining negative affectivity as a problematic personality trait domain.

We assume that emotion dysregulation may also explain disinhibitory traits, as conceptualized by the alternative model of personality disorders (AMPD) of the fifth edition of the DSM (American Psychiatric Association, 2013). In a study focusing on a community sample, Garofalo et al. (2018) found systematic associations between emotion dysregulation functions and impulsivity, or impulsive behavior, but the direction of influence remained unclear. The authors also related these dysfunctions to trait domains akin to the DSM-5 categorical system of PDs and showed that both impulsivity and emotion dysregulation was associated with heightened intensities of a wide array of personality traits (including for negative associations borderline, antisocial and for positive associations histrionic and narcissistic PDs).

The other side of problematic emotion regulation, overcontrol of emotion, or emotional restriction, is part of several personality disorder diagnoses, for example, avoidant, narcissistic, antisocial and dependent PD (Popolo et al., 2014). For example, Tim, who presents with narcissistic personality disorder and has been abandoned by his mother (in his childhood), explains in a detached and factual manner “My mother has done so many nasty things, and I know these things have affected me, but it is just not affecting me these days. Maybe it sounds weird, but I don’t feel anything anymore when I think about my mother. It’s all gone. She is dead for me, but then that’s not true, she is still there somewhere and I don’t care. So this is very complicated, but basically I am doing fine with it.” This excerpt of Tim’s case strikes by an intellectualized way of dealing with emotion, and a partial unawareness of his emotion which may be consistent with alexithymia, as documented being linked to PD (De Panfilis et al. 2015, Ogrodniczuk et al., 2011). A certain general shallowness of the emotional

processing and distancing of the relevant contents may be observed in these cases, in particular in certain clients with PDs (Kramer & Pascual-Leone, 2018), for example with schizoid or avoidant PD, as well as clients who do not necessarily meet criteria for PDs.

While emotion dysregulation is common in other emotional disorders (e.g., depression, anxiety), we observe that it is its severity that may be indicative of personality pathology. For example, in a meta-analysis on empathy capacities and emotional intelligence in clients with BPD (on 45 original studies), the researchers concluded that both lacking empathy and more intense emotional empathy was associated with significant subjective distress in these patients, possibly contributing to their characteristic interpersonal difficulties (Salgado et al., 2020; see also Zanarini et al., 2007). It is likely that biological predispositions, as well as developmental-environmental factors, interact on a moment-by-moment state level to determine the quality of dysregulation, its severity and chronicity: more research is needed to refine these assumptions.

Emotional processing characterized by a problematic relational impact. Difficulties in emotional processing have various interpersonal impacts. Significant others' non-responsiveness to emotional needs embedded in emotions may lead to the development of chronically painful emotions (which may be called primary maladaptive emotions; see Greenberg & Safran, 1989) and to the interpersonal emotional reactions aimed at others. These (interpersonal) emotional reactions that are responses to underlying primary emotions may be referred to as secondary (e.g., expressed secondary anger to the primary emotion of shame of being rejected) or instrumental, i.e., making others to respond in a particular way (e.g., expressed suicidal hopelessness making the other being responsive and thus preventing feeling the shame of being rejected; Greenberg, & Paivio, 1997). In personality pathology, this may go, for instance, as far as expressing the outward rage in the interpersonal context, in such a manner that compels the other to be responsive, which can be seen as non-productive

attempt of getting the other to see the individual's underlying hurt. While this can be observed clinically, there still remains a dearth of research into the instrumental component of emotion expression and its role in personality pathology. The interpersonal problems observed in clients with personality pathology, including BPD, may be explained by specific emotional processes (Sanislow et al., 2002; Sauer-Zavala et al., 2014; Southward et al., 2018).

The instrumental component of emotional expression is particularly characteristic of many clients with personality pathology. This has led Sachse (2020) to conceptualize instrumental behaviors (including the communication of emotion to others) as central for explaining difficult therapeutic interaction. Instrumental expression of behaviors may be understood as interactional maneuvers, or "games", with specific interpersonal (strategic) aims which remain non-transparent for the interaction partners. This is different from the more primary authentic relating where the client is aware of his/her needs in interaction and is able to express them directly. For example, Maya, a client with BPD expresses anxiety and shame in a session by saying: "I know I should tell my boyfriend that I have slept with his best friend, but I do not dare to do that. I think that if I were to do that, I would fall apart and be back to the clinic. So I need help here. I am definitely unable to tell him and I think someone else should tell him, I am too weak to do it..." This example involves an implicit message sent to the treating therapist that he should intervene and possibly talk to the boyfriend as a messenger of the client.

We assume that, from a personality pathology perspective, that the process of expressing an emotion in an interpersonal context with or without the individual's intention of a particular relational impact may also explain detachment and antagonism trait domains in the AMPD (APA, 2013). In order for detachment (as a personality trait) to be effective on the behavioral level (i.e., the individual manages to distance oneself from the content or the emotion), an individual may need specific *capacities* to use the instrumental component of

expressed emotion in an interpersonal situation. These capacities may involve the skill to have an “external” focus and consider the information coming from the other as overly accurate (rather than being able to listen to oneself, in order to construct a healthy Self). This skill may be translated as enhanced cognitive capacities for empathy, and cognitive theory of mind processing, as found in certain clinical presentations of personality pathology, including narcissistic, anti-social and borderline PDs (Lis et al., 2018). Some experimental research has shown that clients with BPD tend to have better results on tasks requiring cognitive theory of mind processing, for example in tasks involving “mind-reading” or cognitive perspective taking (Fertuck et al., 2009), although the larger evidence remains equivocal on that question (Peterson et al., 2016; Schilling et al., 2012).

While the interpersonal nature of the antagonism trait domain has led theoreticians to conceptualize attachment and interpersonal copy processes (Benjamin, 2003, or more generally interpersonal patterns, Pincus, 2005) as a primary source of dysfunction in personality pathology, from a constructivist perspective these socio-cognitive patterns may represent the synthesis of more primary building blocks consisting of biologically-wired emotion systems interacting with meaning-making processes. In this context, Greenberg (2019) argued that the response (r) to an interpersonal stimulus (such as social rejection) may not only depend on characteristics of the situation (or stimulus s) but more on the interaction between the internal schematic processing and the value (v) of the anticipated emotional response. For example, a female client with personality pathology facing interpersonal rejection will detect “in her body” a conflict or discrepancy between schematic processing (i.e., “I cannot trust relationships” leaving her feeling lonely) and the value (v) of an anticipated, more primary adaptive, emotional response (r ; i.e., “I need connection”) towards which action will tend (i.e., the anticipated value of the emotional response is fundamentally positive for the individual). Such a conflict may be the basis for her using antagonistic

strategies in the relationship with the significant other, by expressing hostile criticism towards the attachment figure for example. The interaction goal here may be that the other remains oriented towards her and the means used by the client may seem dysfunctional at first, but may be explained by the underlying emotion dynamics. In this example, the internal emotional dynamics may explain parts of the features related to antagonism in personality pathology. Consistently with this conception, Kramer and Sachse (2013) reported a significant contribution of the intensity of clients' instrumental behaviors (i.e., including emotion expression) to the specific interpersonal problems in BPD, which are akin to antagonistic behavior. In their study, clients' in-session instrumental behaviors also predicted a positive change in affective and interpersonal problems in BPD after treatment. We observe the assumed links between the interpersonal impact of emotion and the different maladaptive traits have high face-value, but more research is needed to test these assumptions.

Emotional processing characterized by a problematic meaning-making process. The meaning construction, along with the construction of knowledge about the self and others and the construction of a coherent sense of Self is a process anchored in emotional processing that can be problematic in itself (Kramer & Pascual-Leone, 2018). It may result in bizarre, incoherent, split-off and, at times, full-blown dissociated presentation of the emotional experience and the Self. In these clinical situations, the narrative, the client's identity, or presentation of the Self is not propelled by the authentic emotional experience underneath. The meaning construction is distorted and thus loses the essence of the information it builds on: the adaptive situation-bound process of the immediate bodily experienced emotion. For example, Nick, a client with narcissistic and paranoid personality disorder, an attractive guy in his mid-twenties, consults for difficulties in finding confidence in going back to work after two years of unemployment. He is convinced that his previous employers fired him because they "thought I am gay". Asked about what domain of work he is looking for, Nick explains:

“I want to be a callboy. I want to serve strong businesswomen in their high-heels and I want to walk down the red carpet with them. I have an athletic body and a good six pack to do that. Do you know where I can get training?” While the core issue in this case may be shame connected to the lack of professional activity, Nick constructs a parallel narrative that does not represent this core issue of his shameful experience of being unemployed for a long time, but his current narrative is perhaps more part of a world of fantasy. Yet, in this segment he presents it as a potentially real next step and inquires if the therapist can help him with making it happen. We assume that such difficulties in emotion-informed meaning-making contribute to a various number of symptomatic problems in personality pathology, including identity diffusion, psychoticism and antagonism, but no research has studied these specific questions, so far.

Changing emotion with emotion in psychotherapy for personality pathology

We have assumed that three types of emotional processing difficulties – problems with regulation, relational emotional expression and problems in meaning-making anchored in emotional experience – may co-determine maladaptive traits of personality. If this is true – and research should continue to investigate and refine this proposal –, the therapeutic implication is that these three types of emotional processing difficulties should be targeted directly in any effective treatment for personality pathology. Before detailing such transdiagnostic interventions, we refer to how changes in emotional processing may take place in psychotherapy in general, i.e., regardless of the client presentation and regardless of whether it meets criteria for personality pathology. We are drawing here on models developed within emotion-focused therapy (EFT; Greenberg et al., 1993; Greenberg, 2016 – and its later transdiagnostic formulation by Timulak & Keogh, 2019; 2021).

The EFT model assumes that there is a shared emotional vulnerability anchored in loneliness, loss, shame and fear, which gives rise to varied symptomatic presentations (e.g.,

low mood, worries, ruminations, self-harming behaviors). Emotion-focused approaches in psychotherapy use the concept of problematic emotion scheme, indicating memory-based structures involving affective, perceptual, cognitive, motivational, and behavioral elements which produce emotional experience (Greenberg, 2015; Pos & Greenberg, 2012; Pos et al., 2019). Greenberg (2016) suggests that the most profound healing in therapy comes from the step-by-step awareness, acceptance and completion of an emotion which may organically lead to a newly constructed emergent synthesis of an emotional experience which undoes and incorporates the initial emotional experience (Pascual-Leone & Greenberg, 2007). It is the client going through that emotion which makes the transformation so powerful.

It is assumed that chronic emotional vulnerability defined by the painful emotional experiences of loneliness, loss, shame and fear (characterized by repeatedly unmet needs for connection, validation and safety) is transformed in therapy by accessing adaptive emotional experiences (i.e., involving the person to respond to unmet needs) such as compassion, grieving and boundary setting anger (see Greenberg, 2015; Pascual-Leone & Greenberg, 2007; Timulak, 2015). It is assumed that this is the core of psychotherapy for any client presentation, including all variants of personality pathology.

The principle of emotion transformation underpins change in schematic memory (Pascual-Leone & Greenberg, 2020). Lane et al. (2015; Lane & Nadel, 2020) propose a tripartite model of memory reconsolidation involving a parallel activation of emotional arousal, episodic memories (i.e., of the original traumatic event) and semantic memories (i.e., schematic representations of the Self in interaction with others) within a specific time window enabling long-term memories to become labile and therefore changeable through therapeutic intervention. The process of reconsolidation of these labile memories will then take several hours (6-12) raising the question of the role of between-session sleep in this process. Since many clients with personality pathology have experienced either a) traumatic memories or b)

difficult social interaction with their attachment figures explaining dysfunctional schematic representations of the Self-being-with-the-other, memory reconsolidation may be a central principle to be fostered in these treatments. An immediate focus on emotion may be a privileged access to make use of this principle.

In emotion-focused approaches, changing emotion with emotion may be fostered by key interventions aiming to heal lingering feelings toward attachment figures, using a specifically adapted empty-chair – emotion-evoking – dialogue focusing on unfinished business (Pos & Greenberg, 2012), as well as other specific work, also using such experientially evoking techniques from Gestalt therapy, on unresolved self-criticism and shame (Pos & Greenberg, 2012). These therapeutic tasks can be understood as major hubs for deep and transformative emotional and memory change in psychotherapy, and may be useful in adapted versions for clients with personality pathology (Pos et al., 2019).

Furthermore, in transdiagnostic emotion-focused approaches, the underlying emotional vulnerability (problematic emotion schemes) and the symptom level difficulties are addressed separately (Timulak & Keogh, 2021). While emotional vulnerability is transformed through the emotional experiences that balance chronic painful feelings (e.g., shame with pride, sadness of loss with love of connection, fear with a sense of empowerment, Greenberg, 2015; Pascual-Leone & Greenberg, 2007; Timulak, 2015), the symptom level difficulties are addressed by highlighting the client agency in the generation of symptoms (e.g., worry, self-harm, suicidal thoughts) and by accessing the impact of those processes (e.g., anxiety and tiredness as a result of worry). For these symptom level difficulties, the therapist then facilitates change in the client in the sense of either letting go of some symptom producing self-treatment and/or of setting boundaries to such processes of problematic self-treatment (Timulak & Keogh, 2021). This binocular focus on a) underlying emotional vulnerability and b) the symptom level difficulties is consistent with wide array of treatments for acute

symptoms of personality pathology (i.e., for borderline personality disorder this concerns for example self-harm and suicidality; Linehan, 1993; Sauer-Zavala et al., 2014).

We propose that the transdiagnostic work involves core therapeutic strategies targeting the *underlying* explanatory emotional processing difficulties, namely (a) difficulties with emotion regulation, (b) difficulties in the interpersonal impact of emotional processing and (c) difficulties in meaning-making part of emotional processing. While the clinical strategies have been described elsewhere from a general viewpoint, the severity and generality of the emotional difficulties found in those with personality pathology warrant their adaptation. Therefore, we adapted the clinical therapeutic tasks which may be useful in addressing these three emotional processing difficulties in the context of personality pathology.

Addressing under- and over-regulated emotion

Task 1: Empathic soothing. There are several therapeutic tasks addressing the under-regulation of emotion. The basic therapeutic option to address under-regulated emotion is an offer of empathic relational soothing in which the therapist puts the client's experience into words while offering a soothing vocal acknowledgment of the difficulty of that experience. Particularly in long-term treatments, the client may internalize the therapist's soothing presence and stability which may contribute to developing a stable and consistent sense of Self, contributing to strengthening one's identity and healing one's attachment injuries.

Task 2: Breathing. Another option to address in-session under-regulation of emotion is a regular offer of instructions to breathe, as regular breathing can have a physiologically calming quality on the level of neurophysiological circuits linking the brain stem to the heart activity and the parasympathetic system in general (Porges, 2011).

Task 3: Clearing a space. There are two other option to address under-regulation of emotion in session. One is the task of clearing a space (Elliott et al., 2004), in which the client

is asked to locate a bodily representation of an upsetting feeling, name it in terms of its bodily quality, but also in terms of what it relates to in the client's life, and then is asked to put that physical feeling aside in their imagination. The process is repeated until there is a sense of relief (Elliott et al., 2004). The difficulties in using this task by clients with high severity and generality of emotion under-regulation are common, so the use of this task needs to naturally reflect that and it may take time before the clients learn this task to their benefit. The clients can then use this task on their own, clinical experience has it that many report doing so.

Task 4: Symptom-level self-soothing. Another task addressing in-session emotional under-regulation is a symptom-level self-soothing task (see Timulak & Keogh, 2021). This needs to be distinguished from a more transformatory self-soothing task used in the context of emotion-focused work healing attachment injuries or resolving self-criticism. In the symptom-level self-soothing task, the client, who is acutely distressed and overwhelmed in the session, is asked to mention a person that has or had a calming effect on them. The client then enacts the person in an imaginary chair dialogue (the client actually sits in an opposite chair and speaks to the imagined self in the self-chair; Timulak & Keogh, 2021) following instructions such as: “*So now be your grandma. What would she say or what would she do if she saw you so distressed, let's do it.*” The therapist facilitates the enactment of the caring behavior; this enactment of the caring behavior may fill the client with a sense of firmness and steadiness present in the expression of support. The client is then asked to come back to their own chair and see whether they can let in the caring coming from the enacted other. By enacting the calming other, the client learns to generate a new experience in the context of their own emotional dysregulation.

Task 5: Resolving self-interruptive splits. Several therapeutic tasks can be used to address in-session over-regulation of emotion. In particular, the self-interruption task (Elliott et al., 2004; Greenberg et al., 1993) can be directly used for a chronic emotional restriction

and over-regulation present in clients with personality pathology. This task addresses three types of avoidance processes: a) inability to access emotion, b) inability to express emotion and c) avoidance of situations/behavior that could trigger painful emotions (Timulak & Keogh, 2021). In this task, a different form (than in task 4) of experiential two-chair dialogue is used: the client is asked to enact the interrupting process in the interrupter chair, become aware of their function (i.e., to protect the client from painful emotions) and see what impact the interruption has on the self. At this point, the impact this intervention usually has is a sense of constriction, tiredness and tension. The client is then asked to express what he or she needs from the part of the self that produces the interruption (e.g., being freer to feel and express it). The client is then further asked to see from the interrupter's perspective what impact it has on the self and respond to the need for freer emotional experiencing and expression. The probing is done to see whether the client can soften and try to let go of the interruptions. Alternatively, the client is facilitated to set a boundary to the interruptions (from the experiencing chair). This task is traditionally used sparingly in therapy, though it may become a major therapeutic task for individuals with personality pathology, such as avoidant personality disorder.

Finally, one needs to remember that the progress in the transformation of the underlying emotional vulnerability (anchored in a chronic sense of loneliness/loss, shame, and/or fear) on its own indirectly helps the client to develop a capacity for optimal levels of emotional arousal, known to predict a good psychotherapy outcome (Carryer & Greenberg, 2010). If the experienced core vulnerability (e.g., I am unlovable) is balanced by fresh experiences of compassion (e.g., I feel loved) and healthy anger (e.g., I deserve love), the core vulnerability is less destabilizing in terms of the client being able to stay with these types of experiences without falling into secondary despair, rage, or an unarticulated distress, thus contributing to consistent and lasting change.

Addressing the relational impact of problematic emotional processing

Task 6: Therapist offering a compassionate and validating presence. A problematic relational impact may involve the client presenting with an external focus (focused on the relationship perceived as unstable or untrustworthy), rather than an internal focus on their inner experience. Facing this problem, a therapist who is patient and aware of the client's inner emotional vulnerability can offer a presence that very much acknowledges the client's unmet emotional needs, thus reorients the client's attention inward. In the context of EFT (Timulak & Keogh, 2021), a compassionate presence is essential: it is the offer of which the therapist responds to the client's emotional pain. In addition, the therapist offers an explicit validation of the client's deservingness of having their needs met. Of note, this compassionate presence is marked by the therapist genuine interest of truly getting to know what is going on within the client – which assumes from the get-go a not-knowing-stance described in several treatments for personality pathology (e.g., Bateman et al., 2013). Task 6 may typically be seen as “following the client” task, which may be complemented by other more activating tasks (those which are “leading” the way to some extent), such as experiential chair-work, that promotes healthy and deep emotional processing by invoking, what psychodynamic approaches refer to as partially forgotten, repressed or split-off representations of Self and Others, in order to promote deep healing.

Task 7: Resolving alliance ruptures. The client's relational dealing with their painful emotional experiences may not be conducive to optimal interactions that would provide a response to their emotional experiences and embedded needs that they would hope to have met. The interpersonal impact of the client's efforts to process their painful emotional experiences may also show in the clients with personality pathology who may be more prone to feel un-responded to by the therapist. This may give a rise to therapeutic ruptures (Safran & Muran, 2000) for which there are several suggestions of how to work with them (e.g., Elliott

et al., 2004; Elliott & Macdonald, 2020). In the center of this effort is the therapist's effort on focusing on the underlying emotional vulnerability of the client that is likely at the center of any hurt the client may experience in the therapeutic relationship. The therapist here owns his/her contribution to the experienced hurt and allows the client to reveal the hurt and then the therapist validates the experience.

Task 8: Focusing on underlying pain when the therapist feels his/her boundaries are challenged. At times, the therapeutic interaction may involve a possible instrumental emotional expression targeting the therapist. Here, it is advised the therapist stays focused on the client's underlying emotional vulnerability, while acknowledging the expression, but also sharing the impact of this expression on the therapist (Timulak & Keogh, 2021). Similarly to couple's therapy (Greenberg & Goldman, 2008; Pos & Greenberg, 2012), the therapist perceives the client's underlying emotional vulnerability, experiences the relational impact that the vulnerability may elicit in the interaction partner (here the therapist), but does not engage in this problematic interactional cycle. Instead, the therapist aims to break this potential cycle by an authentic relational engagement with the client that may include a personal disclosure of how the therapist's vulnerability may be activated by the client's emotional expression and behavior (Timulak & Keogh, 2021).

Task 9: Empathic exploration of interpersonal impacts. The relational impact of the client's emotional processing on others is also systematically teased out in the empathic exploration task, which, although primarily focused on the client's perceptions and internal experiences, also involves the client's perceptions of the others' actions and intentions. The therapist actively contributes here, and together with the client, collaboratively explores the client's interactional experiences. Furthermore, the therapist's empathic exploration is also happening within the imaginary empty-chair dialogues with significant others, in which the client is asked in initial stages to enact the perceived behavior of the other. The therapist here

tries to facilitate the client's perceptions of the others' actions as well as their likely intentions or motivations (Timulak & Keogh, 2021). This increases the client's interpersonal awareness and its interplay with processing painful emotional experiences. The therapist's emotional-interpersonal expertise here plays an important role as the therapist co-constructs with the client a representation of the client's emotional experience, including its interpersonal connotations. The therapist can freely explore and tentatively offer their own perspectives on the client's emotional experience in the significant interpersonal interactions and the client's perceptions of others in them.

The work on the relational impacts of the client's emotional processing may be much more central in clients with personality pathology than for clients with other difficulties. One must not forget though that the main therapeutic work on transforming the client's underlying emotional vulnerability has a direct impact on the client's emotional processing and its interpersonal and relational implications as well. The imaginary interpersonal dialogues, orchestrated by the therapist, in which the client feels acknowledged, responded to, cared for, validated and in which the client stands up for their own needs go a long way towards the client being comfortable and themselves in interactions with others outside of therapy. They thus contribute to a smoother interpersonal functioning, contributing further to processing potentially difficult emotional experiences.

Addressing problematic emotion-informed meaning-making processes

Task 10: Creating a coherent narrative. Addressing difficult meaning-making processing may be done by fostering more integrated narratives in the session. Emotion-focused therapy puts an emphasis on a coherent meaning-making firmly anchored in the emotional experience. This includes processes referred to in the previous section, in which the emotional experiences of relational interactions are captured in a symbolization that fits the felt experience in a way that is not only congruent for the client, but also informs the client's

coherent being in the world, including the client's interactions with others (Greenberg, & Angus, 2003). The therapist thus engages in a sophisticated articulation of the client's emotional experience of the client's (largely interpersonal) functioning in the world. The narratives of the client's emotional experience that are difficult to live by in their everyday life or which are difficult to follow for the therapist are re-constructed in a way that not only accommodate the complexity of the client's emotional experiencing but also allow for the client's fruitful engagement in their life, particularly in the client's relational functioning. The therapist here uses his/her expertise in navigating the socio-cognitive emotional world of the client in co-constructing the narrative that allows for the emotional processing of the client and the client's being in the world that is informed by it. The patience of the therapist and a repeated focus on a coherent and sophisticated, emotion-informed, representation of the client's experience may be fundamental for clients with personality pathology.

Conclusions

The domain of personality pathology moves towards a dimensional and transdiagnostic conception (Clark et al., 2017; Herpertz et al., 2017), however, the conception of psychotherapy for personality pathology remains often anchored in categorical classifications. A truly research-informed (Clark et al., 2017) and transdiagnostic (Caspi et al., 2014; Ruggero et al., 2019; Widiger et al., 2018) conception of personality pathology that ought to be helpful for therapeutic work should take into account emotional underpinnings of personality and its dysfunction. In the present theoretical article, we synthesized knowledge about the core emotional underpinnings co-determining personality pathology from a transdiagnostic perspective. Adopting a constructivist approach to emotion as a goal-oriented system marked by the interaction between pre-wired neurobiological functions and idiosyncratic meaning making processes, we argued that personality pathology may be explained by three types of problematic emotional processing and we summarized the

empirical evidence supporting that. It remains unclear to what extent these three functions are independent from each other or they overlap; research should address this question. In our review, we suggest a three-factor structure composing the more general construct of emotional processing. While our conception is process-based and situation-bound to explain change over time (Kramer et al., 2020), it may be necessary to demonstrate this factor structure in conjunction with the Alternative Model of DSM-5 for Personality Disorders (American Psychiatric Association, 2013). The clusters and associations with personality pathology outlined here have face-value and are intuitively compelling, but no evidence has been put forward about a latent structure of personality pathology that is consistent with the present model. Relatedly, the heterogeneity of personality pathology may impose of our review a high level of generality, and lacking specificity (to specific disorders), which may prove to be a limitation of our review. Also, the aim of the present elaboration was to adopt a perspective on emotional processing as potential explanatory concept of dysfunction in personality pathology. We were unable to fully address other explanatory concepts of interest (i.e., socio-cognitive processes, attachment, identity, and interpersonal, mentalizing and cognitive processes), in addition to complementary emotional processes left partially unaddressed in the current review (i.e., emotion awareness and labeling, appraisal processes, motivational components); more comprehensive theoretical work may be needed. Should the centrality of emotional processing in personality pathology be confirmed in research, psychotherapy may have to directly address emotion as a synthesis of neurobiologically pre-wired and idiosyncratic meaning-making processes.

While several psychotherapy models discuss emotional processing as major hub leading to change (Castonguay et al., 2018; Peluso et al., 2018), tasks from transdiagnostic emotion-focused therapy may be useful to incorporate in evidence-based treatments for personality pathology. Ten specific therapeutic tasks, we outlined here, may foster these

productive processes directly. So far, the empirical evidence for such a direct focus on emotion in personality pathology remains limited, to our knowledge, no studies have tested whether an immediate focus on emotion in the way outlined in treatments for personality pathology presents an outcome advantage. Yet, the current article concludes that personality pathology may be significantly explained by specific emotional processing difficulties, and in addition that transformation of schematic emotional and memory processes are potentially strong mechanisms of change in psychotherapy, including for personality pathology.

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