Shared Human **and Unique** Individual Experiences: Personality Development in **Vulnerable Youth**

Nagila Koster

Shared Human and Unique Individual Experiences:
Personality Development in Vulnerable Youth

Nagila Koster

Printing: Proefschriftmaken | proefschriftmaken.nl
Design omslag en titelbladen: Marcel van Dijk | BTZ vorm en regie
ISBN 978-94-6469-472-7

Shared Human and Unique Individual Experiences:
Personality Development in Vulnerable Youth

Gedeelde menselijke en unieke individuele ervaringen:
Persoonlijkheidsontwikkeling in kwetsbare jongeren
(met een samenvatting in het Nederlands)

Proefschrift

ter verkrijging van de graad van doctor aan de
Universiteit Utrecht
op gezag van de
rector magnificus, prof.dr. H.R.B.M. Kummeling,
ingevolge het besluit van het college voor promoties
in het openbaar te verdedigen op

vrijdag 15 september 2023 des middags te 2.15 uur

door

Nagila Koster

geboren op 4 januari 1990
te Voorschoten

Promotoren:

Prof. dr. M.A.G. van Aken
Prof. dr. P. T. van der Heijden

Copromotor:

Dr. O.M. Laceulle

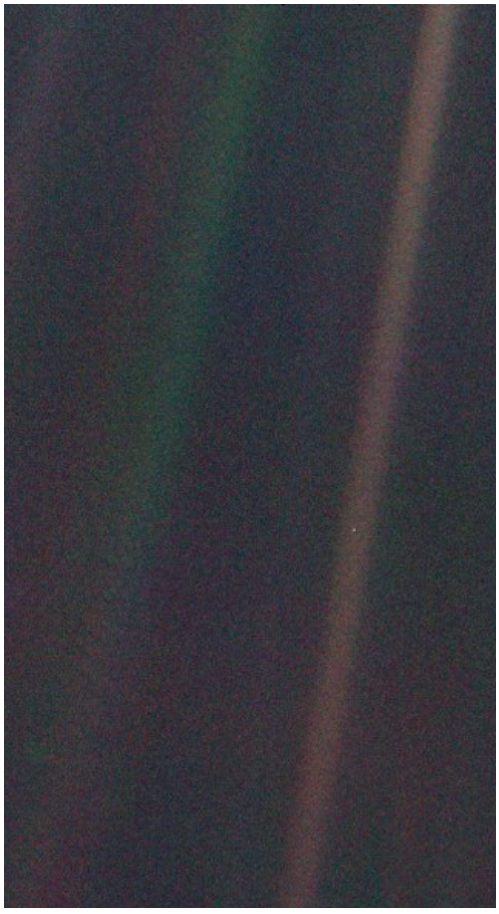
Beoordelingscommissie:

Prof. dr. J.J.A. Denissen
Dr. C. Hessels
Prof. dr. J. Hutsebaut
Prof. dr. G.T.M. Mooren
Prof. dr. R. Otten

CONTENT

Prologue
On shared human and unique individual experiences

PROLOGUE: ON SHARED HUMAN AND UNIQUE INDIVIDUAL EXPERIENCES



"From this distant vantage point, the Earth might not seem of any particular interest. But for us, it's different.

Consider again that dot. That's here, that's home, that's us.
On it everyone you love, everyone you know, everyone you ever heard of, every human being who ever was, lived out their lives.
The aggregate of our joy and suffering, thousands of confident religions, ideologies, and economic doctrines.
Every hunter and forager, every hero and coward, every creator and destroyer of civilization, every king and peasant.
Every young couple in love, every mother and father, hopeful child, inventor and explorer, every teacher of morals, every corrupt politician.
Every "superstar," every "supreme leader," every saint and sinner in the history of our species lived there — on that mote of dust suspended in a sunbeam."

- Carl Sagan, Pale Blue Dot, 1994

This is an excerpt from Carl Sagan's speech that was inspired by a picture taken by Voyager 1 on the 14th of February 1990. As the spacecraft set out for a journey into the unknown, upon request of Mr. Sagan, it was turned around for one last look at its birth place. At a distance of 6,4 billion kilometers, it took a photo. It is a picture of rays of sunlight and in one of them, a pale blue dot. Planet earth.

Living on planet earth is *a shared human experience*. Every human being who ever was and is, lives out their life on that mote of dust suspended in a sunbeam.
Just like living on earth is *a shared human experience*, so is personality development. Every human being who ever was and is, will experience personality development.

However…

Every young person in love, every mother and father, every hopeful child, inventor and explorer may live vastly different lives. They will be born in different contexts, with different families, friends, schools and neighborhoods. Their temperaments will be different. They will experience different life events, trauma's and successes. Their goals and values will be different. Their stories will be different. And likewise, their functioning, mental health, well-being and psychological distress will be different. They are *unique individuals*.

In the past years I have been inspired by the academic fields of personality, clinical, and developmental psychology, and the numerous children, youth and parents I have met in clinical practice. Being a scientist practitioner, I have explored personality development both in groups of youth and in unique individuals. As a scientist, I came across many integrative developmental and dimensional theoretical models of personality development that describe both commonalities and idiosyncrasies. As a clinician, I consistently recognized that all young individuals show important similarities and differences. Both roles have led me to suggest that 'we' are all alike *and* unique. As Dan McAdams (2015, p.1) beautifully puts it:

"Every person fashions a once-in-eternity, never-to-be-repeated life… Yet all lives resemble one another in at least a few ways."

Just like Voyager 1, I have ventured off into what is unknown concerning personality development in vulnerable youth, conscious of the value of integrating shared and unique perspectives on human beings. In this dissertation I present the findings of my journey so far. The 'young couple in love' and 'hopeful child' from Carl Sagan's speech will be recurring illustrative characters throughout the text. They function as example characters, both of youth that share their life on earth and general elements of personality development and of young individuals who lead vastly different lives and follow unique pathways of personality development. The one more adaptive, the other more maladaptive.

Let me introduce this 'young couple in love'. There is Brody, a 22 year old guy and Georgia a 20 year old girl. They come from very different backgrounds. Brody grew up in 'the hood' as he calls it, and Georgia in a middle-upper class family. Then there is the 'hopeful child', a 16 year old girl named Emma, born, like Georgia, in a middle-upper class family. You will get to know Brody, Georgia and Emma better throughout this dissertation, as we explore the value of understanding the shared and unique elements of their personality development.

Disclaimer. This general introduction draws inspiration from a Dutch publication:
Koster, N., van der Heijden, P. T., Laceulle, O. M., & van Aken, M. A. (2020). Een vernieuwende blik op persoonlijkheidsproblematiek bij jongeren: van traditionele hokjes naar dimensioneel denken (A new view of personality problems in youth: from traditional categories to dimensional thinking). *Kind en adolescent, 41,* 31-49.

Chapter 1
General Introduction

The question about what personality is, has been answered differently throughout history. Ideas about 'what makes us 'us'' date as far back as ancient Greece (Flaskerud, 2012). For example, Hippocrates, Plato and Aristoteles all proposed ideas for categorizing individuals that are alike and different based on some aspect of their temperament. Years later, the founding father of personality psychology, Gordon Allport, defined personality as "the dynamic organization within the individual of those psychophysical systems that determine his characteristic behavior and thought" (1961, p.28). Referring to the continuously changing ideas about what 'personality' is, Allport additionally suggested that there seem to be two ways to study it: by taking a nomothetic approach which considers shared commonalities, or by taking an idiographic approach which considers individual uniqueness. To illustrate, the first perspective would separate the 'young couple in love', Brody and Georgia, in distinct categories with others who are more alike based on their temperamental differences. The second perspective would consider them both as unique individuals, unlike anyone else.

The field of clinical psychology considers such shared commonalities in the study of personality disorders. Individuals with similar or distinct dysfunctional symptoms are grouped or separated along a set of diagnostic criteria in categories (American Psychiatric Association (APA, 2013). For example, Brody has such dysfunctionalities. Since Georgia met him one year ago, he always wildly exaggerates everything he does and seems preoccupied with his achievements. He often seems to only care about himself, not even realizing that others think or feel differently. He now seeks help because he recently lost an entire group of new-found friends, who described him as arrogant. Georgia mainly thinks of him as jealous, he just cannot seem to stop asking her for affirmation. Based on these five symptoms, Brody is categorized in the group of those with a narcissistic personality disorder. He is startled to hear this diagnosis and experience the stigma that comes with it. Like many young individuals who receive such diagnoses (Catthoor et al., 2015). It gives the impression that 'who you are and always have been, is itself a mental disorder' (Widiger & Mullins-Sweatt, 2009, p. 203). This is one of the multiple reasons that clinicians are hesitant to acknowledge and diagnose personality disorders in youth (e.g., adolescents and emerging adults; Conway et al., 2017; Laurenssen et al., 2013). This is worrisome because personality pathology – already at a young age – can cause severe suffering, (psychological) distress and social and societal dysfunctioning, all at high financial costs for society (Feenstra et al., 2012; Johnson et al., 1999)

Consider this brief example of the 'hopeful child' Emma, whom – like Brody – went looking for psychological help. You will particularly get to know her better in chapter 9, a case study:

Emma is urgently referred to a specialized mental health institute. While asked to bring a parent, she comes alone to the intake appointment. She has frequent suicidal thoughts. She is scared to lose control and impulsively act on these thoughts, she tells emotionally. She has been feeling depressed and anxious since primary school. She 'never fitted in' and still has frequent flashbacks of how she was severely bullied. Everything seems a blur, her future, her goals, her life, while she had such high hopes. She hoped for a close group of friends, a good career, a family of her own. Now she 'just broke up with her boyfriend for the millionth time, dumped the only friend she had, and her parents wished she was never born', she reports, 'they were never able to support me'. Not a day goes by that she does not consider suicide or harming herself. 'Everyone is better off without me!' she cries.

This example firstly attests to the urgency of acknowledging severe psychological distress in youth. Furthermore, clinicians should always consider the possibility that youth are suffering from personality pathology (Shiner & Allen, 2013), which could be detected early and intervened on early. It has been demonstrated that early-interventions for personality pathology can drastically improve the prognosis for youth (Chanen & McCutcheon, 2013).

Emma's story filled with negative experiences, difficult relations, and maladaptive cognitions furthermore demonstrates that understanding such problems is more nuanced than labeling her personality as disordered. Recent critique has converged on this lack of nuance in diagnostic categories, and suggested to acknowledge dimensionality and human individuality (e.g., Hopwood, 2011; Sharp & Wall, 2021). Considering an individuals' developmental pathway, in which both shared commonalities and unique idiosyncrasies can be integrated, is one way to take such a nuanced perspective on personality pathology. This is especially important for youth, for whom early-detection and -intervention are crucial (Bozzatello et al., 2019). Youth like Brody, Georgia and Emma.

With this dissertation I aim to contribute to the integration of shared and unique perspectives on personality in order to increase our understanding of maladaptive pathways of personality development and how these relate to personality pathology.

To clarify, 'vulnerable youth' in this dissertation refers to youth who – due to a broad range of possible individual and contextual factors – are more prone than other youth to develop psychological difficulties. Considering the above, the investigation of '[Personality] [Development] in [Vulnerable] [Youth]' draws on a diverse and rich, but poorly integrated scientific background. The fields of personality psychology, clinical psychology, developmental psychology, and to some extend also developmental psy-

chopathology always had their own unique interests. Before continuing the journey into what is unknown of personality development in vulnerable youth therefore, this general introduction discusses relevant perspectives on personality traits, personality pathology, normative personality development, and pathways of maladaptive personality development from these fields of study. Furthermore, to gain insight in (vulnerable) youth as human beings who are both alike and unique, the final section of this general introduction presents the integrative model of personality development described by Dan McAdams (2013).

Personality traits

Personality traits refer to the relatively stable dimensions that describe how human beings are alike and different in the general way they tend to behave, feel, and think. One of the most well-established perspectives on personality is the description of individuals along the 'Big Five' personality trait dimensions (McCrae & Costa, 1997). These Big Five dimensions are often conceptualized by the five factor model (FFM) as: Neuroticism, Conscientiousness, Agreeableness, Extraversion, and Openness, referring to the tendencies to be emotionally stable, structured, kind, sociable, and imaginative. These dimensions are consistently found across cultures and development (Asendorpf & Van Aken, 2003; McCrae, 2017). In the 'young couple in love,' for example, Georgia may be described as conscientious and agreeable, whereas Brody may be described as unconscientious and disagreeable.

Recently, it has been suggested that the high and low ends of these Big Five dimensions represent maladaptive extremes (i.e., Negative Affectivity, Disinhibition, Antagonism, Detachment, and Psychoticism; DeYoung et al., 2016; Widiger et al., 2012). The relationship between the normative Big Five personality traits and their maladaptive variants has been repeatedly investigated. Results of these studies provide compelling support for the idea that normative and maladaptive personality traits lie on one dimension (Thomas et al., 2013; van Dijk et al., 2021; Watson et al., 2013). It has been demonstrated that generally high scores on neuroticism correspond to negative affectivity, low scores on conscientiousness to disinhibition, low scores on agreeableness to antagonism, and low scores on extraversion to detachment (e.g., De Caluwé et al., 2019; Pocnet et al., 2018; van Dijk et al., 2021). An exception to this dimensionality is the link between openness and psychoticism, for which typically no substantial association has been found (Chmielewski et al., 2014; DeYoung et al., 2016; van Dijk et al., 2021). This means that in the 'young couple in love', Brody's trait levels actually seem extremely unconscientious and disagreeable, such that they could also be described as disinhibited and antagonistic, unlike Georgia whose trait levels seem normative.

From a shared nomothetic perspective, the adaptivity of one's personality has been related to general levels of conscientiousness (Jensen-Campbell & Malcolm, 2007; Roberts & Bogg, 2004). However, an individuals' personality can be described along all five trait dimensions (McCrae & John, 1992). From an idiographic perspective, every person will have a unique typology with different positions on these dimensions that make their personality generally more adaptive or maladaptive (Oshio et al., 2018; Steca et al., 2010). Personality profiles with constellations of traits have been distinguished that describe certain adaptive individuals, such as 'adapters' or 'innovators' (Kwang & Rodrigues, 2002; Skoglund et al., 2020). Such profiles have also been linked to mal-adaptivity, such as 'under-controlled' or 'over-controlled' individuals who are more likely to struggle with externalizing or internalizing pathology (Asendorpf et al., 2001). Individuals with personality pathology are generally found to be characterized by a 'vulnerability-trait profile' (VTP), representing high levels of neuroticism, and low levels of agreeableness and low levels of conscientiousness (Samuel & Widiger, 2008; Saulsman & Page, 2004).

Perspectives on personality pathology

The conceptualization of personality pathology in clinical practice has, until recently, been largely unrelated to this trait perspective. The classification of personality disorders according to categorization and symptom-criteria in DSM-5 (APA, 2013) is still leading in mental health care for allocating and financing care for individuals with personality pathology. At the same time, it has become increasingly clear that diagnosing personality disorders as such distinct categories is not a completely accurate representation of reality (Hopwood et al., 2018; Wright et al., 2022).

There are several limitations of categorical DSM classifications in general, some of which are particularly relevant in the context of early identification of personality pathology in youth. First, categorical classifications of personality disorders have limited inter-rater reliability (Samuel, 2015), meaning that the agreement between clinicians about personality pathology is moderate (Vanheule et al., 2014). For example, Brody may be diagnosed with a narcissistic personality disorder by one clinician and a borderline personality disorder by the other. Second, the polythetic way of classifying personality disorders, for example requiring five or more symptoms out of nine, leads to enormous heterogeneity (Cooper et al., 2010). To illustrate, there are technically 256 different variants of a borderline personality disorder. This means that Brody and Emma, if they would both be diagnosed with a borderline personality disorder, may be more different than alike in their symptoms. Third, there is the problem of comorbidity (several personality disorders occurring simultaneously in one individual at one time; Clark, 2007). It has been shown that individuals who have symptoms of one, simultaneously have symptoms of one to three other personality disorders due

to substantial criteria-overlap (Westen & Arkowitz-Westen, 1998). Thus, Brody may meet the criteria of both a narcissistic and a borderline personality disorder. Fourth, and particularly important for youth, categorical classifications show poor stability over time. This applies to both the classifications of personality disorders and criteria within these classifications in which a nuanced developmental perspective is lacking (Chanen et al., 2004; Conway et al., 2017). Thus, Brody may meet the criteria to be diagnosed with a narcissistic personality disorder at one moment but may not do so at the next.

From these limitations, it follows that the personality disorder categories lack usefulness in clinical practice (Morey et al., 2014; Mulder, 2021). Moreover, in addition to the associated stigma that causes clinicians' hesitance (Catthoor et al., 2015; Laurenssen et al., 2013), they limit early-detection of personality pathology in youth (Bozzatello et al., 2019). There is no denying that it is difficult to recognize an unreliable, unstable and heterogeneous disorder at an early stage in development. Yet, early-detection of personality pathology is crucial to improve the prognosis of vulnerable youth (Chanen & McCutcheon, 2013).

Alternative models of personality pathology

The problems with the categorical approach to personality disorders are now increasingly acknowledged. For example, the DSM Working Group has suggested an Alternative Model of Personality Disorders (AMPD) in the DSM-5 section III (APA, 2013). This model conceptualizes personality disorders as pervasive and persistent self- and interpersonal dysfunctioning (Criterion A) and high levels of at least one of the maladaptive personality traits (Criterion B). This means that personality disorders are no longer classified as distinct categorical disorders, but understood in terms of shared intra- and interpersonal difficulties, typified with certain personality traits. To illustrate, from an AMPD perspective, Brody may have primarily problems in the areas of empathy and intimacy (interpersonal functioning) next to intrapersonal difficulties with high levels of disinhibition and antagonism.

In addition, it has been proposed that the concept of 'personality disorders' could be recast to 'interpersonal disorders' (Wright et al., 2022). That is, the core of personality pathology seems fundamentally interpersonal, with difficulties in understanding and relating to the self (intrapersonal) and others (interpersonal) as key components (Hopwood et al., 2013). From this perspective, personality pathology is mainly a disorder of social communication, of which its persistence and pervasiveness could be attributed to the stability of interpersonal mechanisms (Luyten & Fonagy, 2022). To illustrate, Brody's social difficulties seem related to him being disinhibited and dominant, which maintains a cycle of interpersonal conflict and rejection and intra-

personal psychological distress and insecurity. Such dimensional perspectives, like the AMPD and the interpersonal perspective, provide a more nuanced representation of personality pathology than symptom categories.

Pathways of (mal-)adaptive development

The core question of personality development may be *how do we become who we are?* (McAdams et al., 2019). '*Who we are'* refers to our personality, what makes us 'us'. '*How do we become*' refers to the development of these distinctive characteristics. If 'who we are', for example in terms of maladaptive levels of personality traits or maladaptive interpersonal dynamics, can for some individuals be related to severe problems and psychological distress, the 'how do we become'-part of this question becomes even more pressing. Both normative and deviating (maladaptive) developmental pathways may be considered.

First, considering *normative developmental pathways*. What is termed 'personality traits or dispositions' later in life, is often termed 'temperament' in childhood (McAdams, 2015; Shiner & DeYoung, 2013). It has been found that, from infancy to adulthood, one's position on these trait-dimensions stays relatively stable in relation to others and shows continuity (Asendorpf & Van Aken, 2003; Borghuis et al., 2017; Rantanen et al., 2007). In addition, children can, like adults, be described by relatively more adaptive or maladaptive trait-profiles, such as 'resilient', 'under controlled', 'overcontrolled' (Asendorpf et al., 2001), or vulnerability profiles (De Clercq et al., 2012; Piotrowska et al., 2020).

As development unfolds, individuals with such *unique* and relatively stable dispositional traits or profiles, like Brody and Georgia, follow developmental pathways with *shared* consecutive socio-emotional, cognitive, and behavioral milestones, or challenges in every phase of development (e.g., Erikson, 1994). In this introduction I focus on the characteristic challenges for youth. In the phases of adolescence and emerging adulthood, the socio-emotional challenges to construct an identity, adopt adult roles and form intimate social relations with others than direct family members are salient (Erikson, 1994; Maree, 2021). These 'developmental tasks' are facilitated by the cognitive development of youth, which enables the ability to reason abstractly and hypothetically along with the social environment of youth, in which relations with peers become increasingly important for constructing one's identity (Ragelienė, 2016; Rice & Dolgin, 2005). Despite this increased importance of peers, the relationships with parents remain influential. Their positive parenting behaviors, such as support and warmth, are crucial factors that help youth navigate this challenging developmental phase (Koepke & Denissen, 2012; Meeus et al., 2002; Schofield et al., 2012). How youth succeed or fail in such adaptive navigation of these developmental

challenges shapes their personality and functioning. For example, Georgia most likely followed an adaptive developmental pathway, being characterized by a resilient temperamental profile, a smooth transition from one milestone to the next and a safe and supportive social context in which she could focus on developing her talents. Brody, in turn, most likely followed a maladaptive developmental pathway, being characterized by a vulnerable temperamental profile, rough transitions from one challenge to the next, and a violent and unsupportive social context in which his focus may have been on 'survival' in this context. Such differential pathways often have substantial consequences for functioning and mental health.

To understand 'the becoming part' of personality along such *maladaptive developmental pathways*, it seems crucial to understand the complex and continuous interplay of a broad range of personal and environmental factors that shape personality and functioning (Cicchetti & Crick, 2009; De Fruyt & De Clercq, 2014; Laceulle & van Aken, 2018). Several factors have been found particularly important for maladaptive developmental trajectories towards personality pathology (Crowell et al., 2009; Gratz et al., 2011). First, one's dispositional traits and childhood psychopathology as two important personal factors (Joyce et al., 2003; Mervielde et al., 2005; Widiger et al., 2009). Maladaptive personality traits, such as high emotional instability (Putnam & Silk, 2005), harm-avoidance (Carter et al., 2001), or specific maladaptive trait profiles, (Widiger et al., 2009) make one vulnerable for developing personality pathology. This vulnerability may often already be expressed as psychopathology in childhood, additionally increasing the vulnerability for later personality pathology (Mervielde et al., 2005). To illustrate, Brody can most likely be characterized by a maladaptive trait profile and was as a child perhaps already diagnosed with a behavioral disorder. Second, one's family-context and the experience of traumatic events as two important environmental factors. Parental psychosocial problems (Reinelt et al., 2014), a negative parenting style (Hallquist et al., 2015; Stepp et al., 2014), and negative characteristics in the parenting climate, such as family adversity (De Clercq et al., 2008; Winsper et al., 2012), are found to negatively influence child development. In such developmental contexts, children may (additionally) experience trauma, like physical or sexual abuse, domestic violence, or bullying, that have all been found to play a role in the emergence of personality pathology (Ball & Links, 2009; MacIntosh et al., 2015; Widom et al., 2009; Wolke et al., 2012). For example, growing up 'in the hood' in poor circumstances, Brody's family- and school-context may have been characterized by violence and aversity. These findings show that personal and environmental characteristics have unique effects on personality development. Moreover, they can also reinforce and mutually influence each other. Illustrative of this interplay are findings that children with difficult temperaments seem more likely to develop personality pathology, particularly if they were also exposed to environmental risk fac-

tors (e.g., harsh parenting). They, moreover, had a higher chance of experiencing such risk factors (Stepp et al., 2014) and subsequently developing maladaptive personality traits (Johnson et al., 2005).

An integrative perspective on the personality development of youth

Dan McAdams (2013) described a model of personality development that incorporates the interplay of factors throughout development and integrates knowledge from the fields of personality and developmental psychology (McAdams & Pals, 2006). Personality, in this model, is conceptualized as a three-layered construct that considers an individual from three standpoints: the *social actor*, the *motivated agent,* and the *autobiographical author*. These layers emerge consecutively during development. Thus, both Brody and Georgia develop as actors, agents, and authors, but these will be unique individual displays.

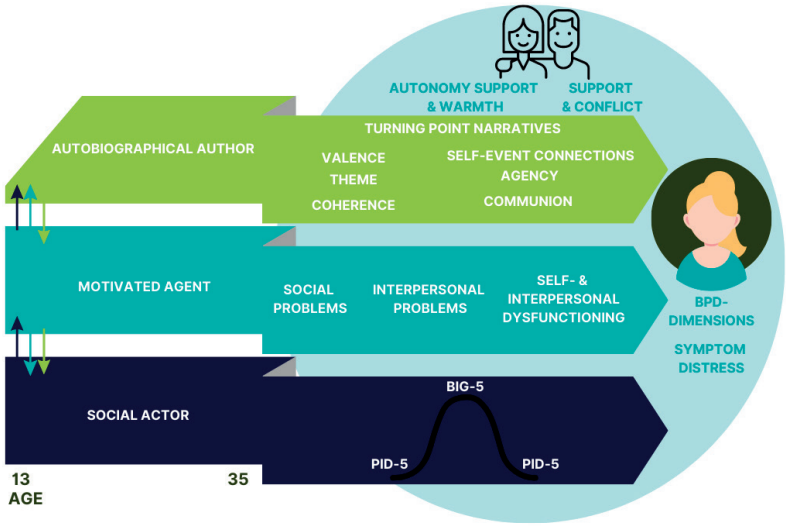
The layer of the individual as *social actor* develops first and considers one's *dispositional traits*. These dispositional or personality traits refer to shared trait dimensions such as the Big Five and are often referred to as temperamental traits in childhood. They reflect the relatively consistent manner in which an individual generally approaches the (social) world throughout development in terms of emotion, thought, and action (McAdams, 2013). The layer of the individual as *motivated agent* develops next and considers one's *characteristic adaptations*. These adaptations refer to a broad range of ways in which one adapts to and acts upon the unique and continuously changing environmental context. This context refers, for example, to one's family-environment or life experiences. To be a motivated agent, is to be goal-directed and intentional in such a context, which generally involves the motive to 'get ahead' (agency) and 'get along' (communion) (McAdams, 2013, 2015; Paulhus & Trapnell, 2008). Consequently, characteristic adaptations are, for instance, reflected in one's motivational agenda, mental representations of the self and others, interpersonal attitudes, values, goals, and social roles (McAdams & Pals 2006). The layer of the individual as autobiographical author develops last and considers *one's narrative identity*. This refers to one's unique and evolving reflective life story, which provides structure and meaning to the past, purpose to the present, and expectations for the future. The narrative identity becomes explicit as early adolescents develop the cognitive capacities and (social) motivation to construct a coherent and integrative picture of the self (Habermas & Bluck, 2000). From an young age, social learning shapes the tone, and later, the themes, and content of the narrative identity (Fivush et al., 2006; Habermas & Bluck, 2000; McAdams & Pals, 2006). As such, it provides an idea of consistency of the self over time (McAdams, 2018).

Pathways of maladaptive personality development

This dissertation builds on McAdams's integrative model of personality development and aims to extend it with knowledge from the fields of clinical psychology and developmental psychopathology to shed light on maladaptive pathways of personality development. From this perspective, the *individual as social actor* is considered with its maladaptive extremes of the Big Five personality traits. The *individual as motivated agent* is considered in the context of characteristic mal-adaptations that arise from the interplay between personal and environmental factors that increase one's vulnerability for personality pathology (Mulay et al., 2018). Finally, the *individual as autobiographical author* is considered in the context of the challenge to make meaning of an often difficult life in an aversive context filled with negative, potentially traumatic, life events. Adaptive meaning making has been found both particularly important and particularly difficult in such a context (McLean et al., 2013).

As such, this framework could be useful to increase our understanding of how possibly at a young age – youth may come to follow or bend towards a maladaptive pathway of personality development resulting in personality pathology. Taking this developmental and dimensional perspective aligns with the shift towards an alternative conceptualization of personality pathology (e.g., the AMPD or interpersonal perspective) in which the narrative identity is particularly suggested to play an important role (Dunlop et al., 2022; Lind, 2021). Moreover, and coming back to vulnerable youth like Brody and Emma, this framework may help clinicians understand how their development has led up to these problems and detect whether these may be classified as personality pathology. Research on the interplay between vulnerable youth as social actors, motivated agents, and autobiographical authors is scarce. Therefore, the studies in this dissertation investigate this model's components and their interactions both separately and in tandem (Figure 1).

Figure 1. *A visual display of the investigated components in this dissertation and their place in McAdams's (2013) integrative model of personality development.*



Aims and outline of this dissertation

It seems that to truly understand 'how vulnerable youth become who they are' an integration of personality, clinical, and developmental perspectives is necessary. Grounded in an extensive body of research into (interactions between) characteristics that are typically considered in these separate perspectives, McAdams's model of personality development facilitates a framework for an integrated, dimensional, and developmental understanding of personality and psychopathology. This thesis is divided into two sections: 1) a section that focus on youth as social actors and motivated agents and considers the shared and unique role of dispositions, adaptations, and the environment in personality development and personality pathology (see Figure 1a), and 2) a section that builds on the first, and focuses on youth as autobiographical authors by considering the shared and unique role of narrative identity as an important element of personality development and personality pathology (see Figure 1b).

Section I: Shared and unique dispositions, adaptations, and environments

The first part of this section considers youth as social actors and focus on their dispositional traits in relation to personality pathology. In chapter 2, we first focused on the maladaptive extremes of the Big Five traits as a necessary exploration before being able to assess these reliably in youth, particularly in clinical settings. We examined the psychometric properties of a reduced version of the Personality Inventory for DSM-5 (PID-5) – a self-report questionnaire that assesses five maladaptive dispositional

traits – in samples of both non-clinical and clinical youth. Thereafter, in chapter 3, we took a first step in examining the relations between dispositional traits and personality pathology and examined the correlates between the normative Big Five traits and Borderline Personality Disorder characteristics, in an adolescent mixed sample.

The second part of this section builds on the first by integrating the perspective of youth as a motivated agents within their shared and unique developmental context and in relation to personality pathology. Specifically, in chapter 4, we considered symptom distress in vulnerable youth and investigated trajectories of change over a period of one and a half years. Using growth curve modelling, we examined whether dispositional traits (maladaptive personality traits) and developmental context (support from or negative interactions with parents) predicted these trajectories. Subsequently, in chapter 5, we took this a step further by testing an integrative model in which we examined the interactions of dispositional traits (D), characteristic adaptations (A), and the environment (E) on the interface between adaptive and maladaptive development. In this DAE-Model, we considered constructs that may be hypothesized as elements of a maladaptive pathway of personality development and investigated interrelations using a cross-lagged panel model. Specifically, we examined the interplay of a personality trait-vulnerability profile (D), social problems (A), and the perceived quality of the parent-child relationship (E).

Section 2: Shared and unique narrative identities

This section starts with chapter 6, which contains the protocol article of the APOLO research project. With this project, we aimed to test (components of) the integrative model of personality development in vulnerable youth who experience severe psychological distress and personality functioning difficulties. This protocol chapter describes this longitudinal, multi-center project's theoretical background, design, methods, and most importantly, research aims. In this project, quantitative and qualitative measures were integrated: next to using self- and informant-report questionnaires, narrative identity was assessed by asking youth to narrate about turning point events in their lives.

By using APOLO-data, this second section adds the layer of youth as autobiographical authors in relation to personality pathology. In chapter 7, we examined the nature of the narrative identities of vulnerable youth and the relations with personality pathology. Specifically, we investigated how various elements of their turning point narratives (i.e., valence, coherence and agency) relate to personality pathology from both a dimensional and a categorical perspective. Importantly, by considering the dimensional conceptualization of personality pathology (personality dysfunctioning and maladaptive traits), we also investigated the relations between youth as social ac-

tors, motivated agents, and autobiographical authors. Subsequently, in chapter 8, we examined how agency and communion in the turning point narratives of vulnerable youth are related to their interpersonal behavior, both concurrently and prospectively. By doing this, we investigated the interplay between youth as motivated agents and autobiographical authors. Since the studies in this dissertation all contribute to the understanding of personality (development) through a nomothetical consideration of groups of youth, the final study chapter 9, takes a idiographic approach. It presents a case study of Emma, one of my youth patients in the past years. It describes how, based on the integrative framework of personality development, I have come to know her as a unique individual and understand her personality development, symptoms, and difficulties. In this study, we furthermore suggest how this framework may be used in clinical assessment to gain an accurate but nuanced, dimensional, and developmental, understanding of a unique individual that serves treatment planning.

Finally, in chapter 10, I summarize and discuss the results of all chapters in line with the consecutive emergence of the layers of personality. I furthermore discuss the implications of these results both in terms of directions for future research and in terms of insights that may be clinically useful. In the epilogue, I place the findings of this dissertation in the broader context of youth as part of the 'achievement generation' and reflect on how the individualistic and digital contemporary society may affect their personality development.

Figure 1a. *A visual display of chapters 2, 3, 4, and 5 in section 1 of this dissertation.*

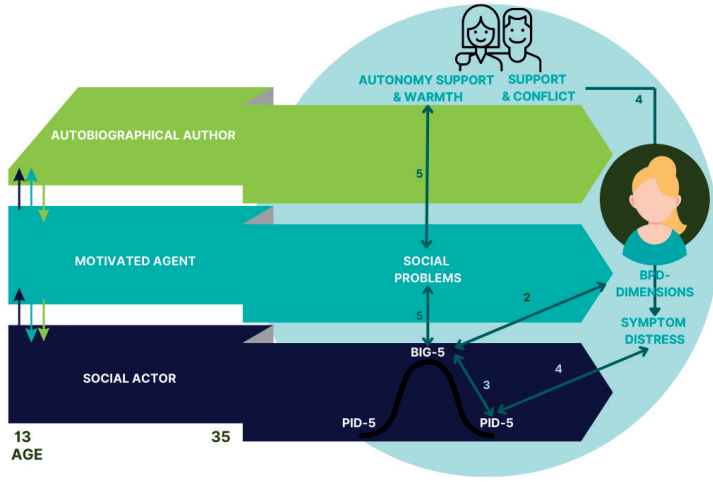
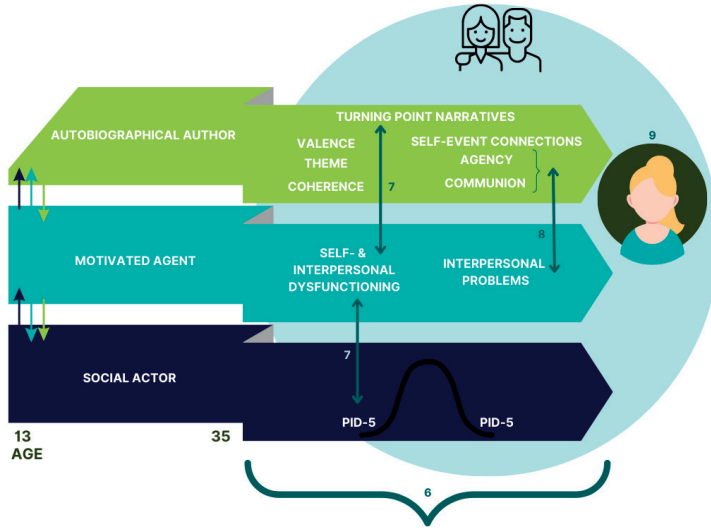


Figure 1b. *A visual display of chapters 6, 7, 8, and 9 in section 2 of this dissertation.*



SAMPLE OVERVIEW

Table 1. *Overview of the Samples Used in the Empirical Chapters of this Dissertation*

Chapter	Sample(s)	Age
Section 1		
2	Mixed sample: 162 mid- adolescents (90% female): clinical adolescents (n = 102) & community adolescents (n = 60)	M_{age} = 15.3, SD = 1.4 (13-17 yrs)
3	Clinical samples:	
	1) 101 mid-adolescents (55% female)	M_{age} = 15.1, *SD* = 1.8 (12-19 yrs)
	2) 212 late-adolescents (71% female)	M_{age} = 20.1, *SD* = 2.4 (13-24 yrs)
	Community samples:	M_{age} = 15.9, *SD* = 0.9 (14-18 yrs)
	1) 100 mid-adolescents (81% female)	M_{age} = 19.5, *SD* = 1.9 (17-31 yrs)
	2) 218 late-adolescents (74% female)	
4	Clinical sample:	
	911 late-adolescents (67% female)	M_{age} = 20.2, *SD* = 2.4
	Subsample:	M_{age} = 20.9 SD = 2.4
	127 late-adolescents (73% female)	
5	Community sample:	
	463 early-late adolescents (52% female)	M_{ageT1} = 13.6, SD = 1.1 (11-16 yrs)
Section 2		
6	APOLO Study Protocol	
7	Clinical sample:	
	242 late-adolescents (73% female)	M_{age} = 18.8; SD_{age} = 2.6 (12-26 yrs)
8	Clinical sample:	
	293 late-adolescents (75% female)	M_{age} = 19.7, SD = 2.0
9	Case study:	
	1 late adolescent (female)	Age: 18 yrs

REFERENCES

Allport, G. W. (1961). *Pattern and growth in personality.* Holt, Reinhart & Winston.

American Psychiatric Association. *Diagnostic and statistical manual of mental disorders. 5th ed.*. Washington, DC: Author, 2013.

Asendorpf, J. B., Borkenau, P., Ostendorf, F., & Van Aken, M. A. G. (2001). Carving personality description at its joints: Confirmation of three replicable personality prototypes for both children and adults. *European Journal of Personality*, *15*(3), 169–198. https://doi.org/10.1002/per.408

Asendorpf, J. B., & Van Aken, M. A. G. (2003). Validity of Big Five personality judgments in childhood: A 9 year longitudinal study. *European Journal of Personality*, *17*(1), 1–17. https://doi.org/10.1002/per.460

Ball, J. S., & Links, P. S. (2009). Borderline personality disorder and childhood trauma: Evidence for a causal relationship. *Current Psychiatry Reports*, *11*(1), 63–68. https://doi.org/10.1007/s11920-009-0010-4

Borghuis, J., Denissen, J. J. A., Oberski, D., Sijtsma, K., Meeus, W. H. J., Branje, S., Koot, H. M., & Bleidorn, W. (2017). Big Five personality stability, change, and codevelopment across adolescence and early adulthood. *Journal of Personality and Social Psychology*, *113*(4), 641–657. https://doi.org/10.1037/pspp0000138

Bozzatello, P., Bellino, S., Bosia, M., & Rocca, P. (2019). Early Detection and Outcome in Borderline Personality Disorder. *Frontiers in Psychiatry*, *10*, 710. https://doi.org/10.3389/fpsyt.2019.00710

Carter, J. D., Joyce, P. R., Mulder, R. T., & Luty, S. E. (2001). The Contribution of Temperament, Childhood Neglect, and Abuse to the Development of Personality Dysfunction: A Comparison of Three Models. *Journal of Personality Disorders*, *15*(2), 123–135. https://doi.org/10.1521/pedi.15.2.123.19216

Catthoor, K., Hutsebaut, J., Schrijvers, D., Feenstra, D., & Sabbe, B. (2015). Adolescents with personality disorders suffer from severe psychiatric stigma: Evidence from a sample of 131 patients. *Adolescent Health, Medicine and Therapeutics*, 81. https://doi.org/10.2147/AHMT.S76916

Chanen, A. M., Jackson, H. J., McGorry, P. D., Allot, K. A., Clarkson, V., & Yuen, H. P. (2004). Two-Year Stability of Personality Disorder in Older Adolescent Outpatients. *Journal of Personality Disorders*, *18*(6), 526–541. https://doi.org/10.1521/pedi.18.6.526.54798

Chanen, A. M., & McCutcheon, L. (2013). Prevention and early intervention for borderline personality disorder: Current status and recent evidence. *British Journal of Psychiatry*, *202*, s24–s29. https://doi.org/10.1192/bjp.bp.112.119180

Chmielewski, M., Bagby, R. M., Markon, K., Ring, A. J., & Ryder, A. G. (2014). Openness to Experience, Intellect, Schizotypal Personality Disorder, and Psychoticism: Resolving the Controversy. *Journal of Personality Disorders*, *28*(4), 483–499. https://doi.org/10.1521/pedi_2014_28_128

Cicchetti, D., & Crick, N. R. (2009). Precursors and diverse pathways to personality disorder in children and adolescents. *Development and Psychopathology*, *21*(3), 683–685. https://doi.org/10.1017/S0954579409000388

Clark, L. A. (2007). Assessment and Diagnosis of Personality Disorder: Perennial Issues and an Emerging Reconceptualization. *Annual Review of Psychology*, *58*(1), 227–257. https://doi.org/10.1146/annurev.psych.57.102904.190200

Conway, C. C., Hipwell, A. E., & Stepp, S. D. (2017). Seven-Year Course of Borderline Personality Disorder Features: Borderline Pathology Is as Unstable as Depression During Adolescence. *Clinical Psychological Science*, *5*(4), 742–749. https://doi.org/10.1177/2167702617691546

Conway, C. C., Tackett, J. L., & Skodol, A. E. (2017). Are Personality Disorders Assessed in Young People? *American Journal of Psychiatry*, *174*(10), 1000–1001. https://doi.org/10.1176/appi.ajp.2017.17040454

Cooper, L. D., Balsis, S., & Zimmerman, M. (2010). Challenges associated with a polythetic diagnostic system: Criteria combinations in the personality disorders. *Journal of Abnormal Psychology*, *119*(4), 886–895. https://doi.org/10.1037/a0021078

Crowell, S. E., Beauchaine, T. P., & Linehan, M. M. (2009). A biosocial developmental model of borderline personality: Elaborating and extending linehan's theory. *Psychological Bulletin*, *135*(3), 495–510. https://doi.org/10.1037/a0015616

De Caluwé, E., Verbeke, L., Aken, M. van, Heijden, P. T. van der, & Clercq, B. D. (2019). The *DSM-5* Trait Measure in a Psychiatric Sample of Late Adolescents and Emerging Adults: Structure, Reliability, and Validity. *Journal of Personality Disorders*, *33*(1), 101–118. https://doi.org/10.1521/pedi_2018_32_333

De Clercq, B., Rettew, D., Althoff, R. R., & De Bolle, M. (2012). Childhood personality types: Vulnerability and adaptation over time: Childhood personality types and adaptation over time. *Journal of Child Psychology and Psychiatry*, *53*(6), 716–722. https://doi.org/10.1111/j.1469-7610.2011.02512.x

De Clercq, B., Van Leeuwen, K., De Fruyt, F., Van Hiel, A., & Mervielde, I. (2008). Maladaptive Personality Traits and Psychopathology in Childhood and Adolescence: The Moderating Effect of Parenting. *Journal of Personality*, *76*(2), 357–383. https://doi.org/10.1111/j.1467-6494.2007.00489.x

De Fruyt, F., & De Clercq, B. (2014). Antecedents of Personality Disorder in Childhood and Adolescence: Toward an Integrative Developmental Model. *Annual Review of Clinical Psychology*, *10*(1), 449–476. https://doi.org/10.1146/annurev-clinpsy-032813-153634

DeYoung, C. G., Carey, B. E., Krueger, R. F., & Ross, S. R. (2016). Ten aspects of the Big Five in the Personality Inventory for DSM–5. *Personality Disorders: Theory, Research, and Treatment*, *7*(2), 113–123. https://doi.org/10.1037/per0000170

Dunlop, W. L., Lind, M., & Hopwood, C. J. (2022). Synthesizing contemporary integrative interpersonal theory and the narrative identity approach to examine personality dynamics and regulatory processes. *Journal of Personality*, jopy.12707. https://doi.org/10.1111/jopy.12707

Erikson, E. H. (1994). Identity: Youth and crisis (No. 7). New York, NY: WW Norton.

Feenstra, D. J., Hutsebaut, J., Laurenssen, E. M. P., Verheul, R., Busschbach, J. J. V., & Soeteman, D. I. (2012). The Burden of Disease Among Adolescents with Personality Pathology: Quality of Life and Costs. *Journal of Personality Disorders*, *26*(4), 593–604. https://doi.org/10.1521/pedi.2012.26.4.593

Fivush, R., Haden, C. A., & Reese, E. (2006). Elaborating on Elaborations: Role of Maternal Reminiscing Style in Cognitive and Socioemotional Development. *Child Development*, *77*(6), 1568–1588. https://doi.org/10.1111/j.1467-8624.2006.00960.x

Flaskerud, J. H. (2012). Temperament and Personality: From Galen to DSM 5. *Issues in Mental Health Nursing*, *33*(9), 631–634. https://doi.org/10.3109/01612840.2011.647256

Gratz, K. L., Latzman, R. D., Tull, M. T., Reynolds, E. K., & Lejuez, C. W. (2011). Exploring the Association Between Emotional Abuse and Childhood Borderline Personality Features: The Moderating Role of Personality Traits. *Behavior Therapy*, *42*(3), 493–508. https://doi.org/10.1016/j.beth.2010.11.003

Habermas, T., & Bluck, S. (2000). Getting a life: The emergence of the life story in adolescence. *Psychological Bulletin*, *126*(5), 748–769. https://doi.org/10.1037/0033-2909.126.5.748

Hallquist, M. N., Hipwell, A. E., & Stepp, S. D. (2015). Poor self-control and harsh punishment in childhood prospectively predict borderline personality symptoms in adolescent girls. *Journal of Abnormal Psychology*, *124*(3), 549–564. https://doi.org/10.1037/abn0000058

Hopwood, C. J. (2011). Personality Traits in the *DSM–5*. *Journal of Personality Assessment*, *93*(4), 398–405. https://doi.org/10.1080/00223891.2011.577472

Hopwood, C. J., Kotov, R., Krueger, R. F., Watson, D., Widiger, T. A., Althoff, R. R., Ansell, E. B., Bach, B., Michael Bagby, R., Blais, M. A., Bornovalova, M. A., Chmielewski, M., Cicero, D. C., Conway, C., De Clercq, B., De Fruyt, F., Docherty, A. R., Eaton, N. R., Edens, J. F., … Zimmermann, J. (2018). The time has come for dimensional personality disorder diagnosis: The time has come for dimensional personality disorder diagnosis. *Personality and Mental Health*, *12*(1), 82–86. https://doi.org/10.1002/pmh.1408

Hopwood, C. J., Wright, A. G. C., Ansell, E. B., & Pincus, A. L. (2013). The Interpersonal Core of Personality Pathology. *Journal of Personality Disorders*, *27*(3), 270–295. https://doi.org/10.1521/pedi.2013.27.3.270

Jensen-Campbell, L. A., & Malcolm, K. T. (2007). The Importance of Conscientiousness in Adolescent Interpersonal Relationships. *Personality and Social Psychology Bulletin*, *33*(3), 368–383. https://doi.org/10.1177/0146167206296104

Johnson, J. G., Bromley, E., & McGeoch, P. G. (2005). Role of childhood experiences in the development of maladaptive and adaptive personality traits. In J. M. Oldham, A. E. Skodol, & D. S. Bender (red.), The American Psychiatric Publishing textbook of personality disorders (pag. 209–221). Washington/London: American Psychiatric Publishing, Inc.

Johnson, J. G., Cohen, P., Skodol, A. E., Oldham, J. M., Kasen, S., & Brook, J. S. (1999). Personality Disorders in Adolescence and Risk of Major Mental Disorders and Suicidality During Adulthood. *Archives of General Psychiatry*, *56*(9), 805. https://doi.org/10.1001/archpsyc.56.9.805

Joyce, P. R., Mckenzie, J. M., Luty, S. E., Mulder, R. T., Carter, J. D., Sullivan, P. F., & Robert Cloninger, C. (2003). Temperament, childhood environment and psychopathology as risk factors for avoidant and borderline personality disorders. *Australian & New Zealand Journal of Psychiatry*, *37*(6), 756–764. https://doi.org/10.1080/j.1440-1614.2003.01263.x

Koepke, S., & Denissen, J. J. A. (2012). Dynamics of identity development and separation–individuation in parent–child relationships during adolescence and emerging adulthood – A conceptual integration. *Developmental Review*, *32*(1), 67–88. https://doi.org/10.1016/j.dr.2012.01.001

Kwang, N. A., & Rodrigues, D. (2002). A Big-Five Personality Profile of the Adaptor and Innovator. *The Journal of Creative Behavior*, *36*(4), 254–268. https://doi.org/10.1002/j.2162-6057.2002.tb01068.x

Laceulle, O. M., & van Aken, M. A. G. (2018). Transactions of Personality and the Social Environment During Development. In V. Zeigler-Hill & T. Shackelford, *The SAGE Handbook of Personality and Individual Differences: Volume II: Origins of Personality and Individual Differences* (pp. 241–258). SAGE Publications Ltd. https://doi.org/10.4135/9781526451200.n14

Laurenssen, E. M. P., Hutsebaut, J., Feenstra, D. J., Van Busschbach, J. J., & Luyten, P. (2013). Diagnosis of personality disorders in adolescents: A study among psychologists. *Child and Adolescent Psychiatry and Mental Health*, *7*(1), 3. https://doi.org/10.1186/1753-2000-7-3

Lind, M. (2021). ICD-11 Personality Disorder: The Indispensable Turn to Narrative Identity. *Frontiers in Psychiatry*, *12*, 642696. https://doi.org/10.3389/fpsyt.2021.642696

Luyten, P., & Fonagy, P. (2022). Integrating and differentiating personality and psychopathology: A psychodynamic perspective. *Journal of Personality*, *90*(1), 75–88. https://doi.org/10.1111/jopy.12656

MacIntosh, H. B., Godbout, N., & Dubash, N. (2015). Borderline personality disorder: Disorder of trauma or personality, a review of the empirical literature. *Canadian Psychology / Psychologie Canadienne*, *56*(2), 227–241. https://doi.org/10.1037/cap0000028

Maree, J. G. (2021). The psychosocial development theory of Erik Erikson: Critical overview. *Early Child Development and Care*, *191*(7–8), 1107–1121. https://doi.org/10.1080/03004430.2020.1845163

McAdams, D. P. (2013). The Psychological Self as Actor, Agent, and Author. *Perspectives on Psychological Science*, *8*(3), 272–295. https://doi.org/10.1177/1745691612464657

McAdams, D. P. (2015). *The art and science of personality development*. The Guilford Press.

McAdams, D. P. (2018). Narrative Identity: What Is It? What Does It Do? How Do You Measure It? Imagination, Cognition and Personality, 37(3), 359–372. https://doi.org/10.1177/0276236618756704

McAdams, D. P., & Pals, J. L. (2006). A new Big Five: Fundamental principles for an integrative science of personality. *American Psychologist*, *61*(3), 204–217. https://doi.org/10.1037/0003-066X.61.3.204

McAdams, D. P., Shiner, R. L., & Tackett, J. L. (Eds.). (2019). *Handbook of personality development*. The Guilford Press.

McCrae, R. R. (2017). *The Five-Factor Model across cultures*. Praeger/ABC-CLIO.

McCrae, R. R., & Costa, P. T. (1997). Personality trait structure as a human universal. *American Psychologist*, *52*(5), 509–516. https://doi.org/10.1037/0003-066X.52.5.509

McCrae, R. R., & John, O. P. (1992). An Introduction to the Five-Factor Model and Its Applications. *Journal of Personality*, *60*(2), 175–215. https://doi.org/10.1111/j.1467-6494.1992.tb00970.x

McLean, K. C., Wood, B., & Breen, A. V. (2013). Reflecting on a Difficult Life: Narrative Construction in Vulnerable Adolescents. *Journal of Adolescent Research*, *28*(4), 431–452. https://doi.org/10.1177/0743558413484355

Meeus, W., Oosterwegel, A., & Vollebergh, W. (2002). Parental and peer attachment and identity development in adolescence. *Journal of Adolescence*, *25*(1), 93–106. https://doi.org/10.1006/jado.2001.0451

Mervielde, I., De Clercq, B., De Fruyt, F., & Van Leeuwen, K. (2005). Temperament, Personality, and Developmental Psychopathology as Childhood Antecedents of Personality Disorders. *Journal of Personality Disorders*, *19*(2), 171–201. https://doi.org/10.1521/pedi.19.2.171.62627

Morey, L. C., Skodol, A. E., & Oldham, J. M. (2014). Clinician judgments of clinical utility: A comparison of DSM-IV-TR personality disorders and the alternative model for DSM-5 personality disorders. *Journal of Abnormal Psychology*, *123*(2), 398–405. https://doi.org/10.1037/a0036481

Mulay, A. L., Cain, N. M., Waugh, M. H., Hopwood, C. J., Adler, J. M., Garcia, D. J., Kurtz, J. E., Lenger, K. A., & Skadberg, R. (2018). Personality Constructs and Paradigms in the Alternative *DSM-5* Model of Personality Disorder. *Journal of Personality Assessment*, *100*(6), 593–602. https://doi.org/10.1080/00223891.2018.1477787

Mulder, R. (2021). The evolving nosology of personality disorder and its clinical utility. *World Psychiatry*, *20*(3), 361–362. https://doi.org/10.1002/wps.20915

Oshio, A., Taku, K., Hirano, M., & Saeed, G. (2018). Resilience and Big Five personality traits: A meta-analysis. *Personality and Individual Differences*, *127*, 54–60. https://doi.org/10.1016/j.paid.2018.01.048

Paulhus, D. L., & Trapnell, P. D. (2008). Self-presentation of personality: An agency-communion framework. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 492–517). The Guilford Press.

Piotrowska, P. J., Whitten, T., Tzoumakis, S., Laurens, K. R., Katz, I., Carr, V. J., Harris, F., & Green, M. J. (2020). Transitions between socio-emotional and cognitive vulnerability profiles from early

to middle childhood: A population study using multi-agency administrative records. *European Child & Adolescent Psychiatry*, *29*(12), 1659–1670. https://doi.org/10.1007/s00787-020-01475-x

Pocnet, C., Antonietti, J.-P., Handschin, P., Massoudi, K., & Rossier, J. (2018). The many faces of personality: The DSM-5 dimensional and categorical models and the five-factor model. *Personality and Individual Differences*, *121*, 11–18. https://doi.org/10.1016/j.paid.2017.09.005

Putnam, K. M., & Silk, K. R. (2005). Emotion dysregulation and the development of borderline personality disorder. *Development and Psychopathology*, *17*(4), 899-925. https://doi.org/10.1017/S0954579405050431

Ragelienė T. (2016). Links of Adolescents Identity Development and Relationship with Peers: A Systematic Literature Review. *Journal of the Canadian Academy of Child and Adolescent Psychiatry, 25*(2), 97–105.

Rantanen, J., Metsäpelto, R.-L., Feldt, T., Pulkkinen, L., & Kokko, K. (2007). Long-term stability in the Big Five personality traits in adulthood. *Scandinavian Journal of Psychology*, *48*(6), 511–518. https://doi.org/10.1111/j.1467-9450.2007.00609.x

Reinelt, E., Stopsack, M., Aldinger, M., Ulrich, I., Grabe, H. J., & Barnow, S. (2014). Longitudinal Transmission Pathways of Borderline Personality Disorder Symptoms: From Mother to Child? *Psychopathology*, *47*(1), 10–16. https://doi.org/10.1159/000345857

Rice, F. P., & Dolgin, K. G. (2005). *The adolescent: Development, relationships and culture*.

Pearson Education New Zealand.

Roberts, B. W., & Bogg, T. (2004). A Longitudinal Study of the Relationships Between Conscientiousness and the Social- Environmental Factors and Substance-Use Behaviors That Influence Health. *Journal of Personality*, *72*(2), 325–354. https://doi.org/10.1111/j.0022-3506.2004.00264.x

Samuel, D. B. (2015). A review of the agreement between clinicians' personality disorder diagnoses and those from other methods and sources. *Clinical Psychology: Science and Practice*, *22*(1), 1–19. https://doi.org/10.1111/cpsp.12088

Samuel, D., & Widiger, T. (2008). A meta-analytic review of the relationships between the five-factor model and DSM-IV-TR personality disorders: A facet level analysis. *Clinical Psychology Review*, *28*(8), 1326–1342. https://doi.org/10.1016/j.cpr.2008.07.002

Saulsman, L. M., & Page, A. C. (2004). The five-factor model and personality disorder empirical literature: A meta-analytic review. *Clinical Psychology Review*, *23*(8), 1055–1085. https://doi.org/10.1016/j.cpr.2002.09.001

Schofield, T. J., Conger, R. D., Donnellan, M. B., Jochem, R., Widaman, K. F., & Conger, K. J. (2012). Parent Personality and Positive Parenting as Predictors of Positive Adolescent Personality Development Over Time. *Merrill-Palmer Quarterly*, *58*(2), 255–283. https://doi.org/10.1353/mpq.2012.0008

Sharp, C., & Wall, K. (2021). DSM-5 Level of Personality Functioning: Refocusing Personality Disorder on What It Means to Be Human. *Annual Review of Clinical Psychology*, *17*(1), 313–337. https://doi.org/10.1146/annurev-clinpsy-081219-105402

Shiner, R. L., & DeYoung, C. G. (2013). The structure of temperament and personality traits: A developmental perspective. In P. D. Zelazo (Ed.), *The Oxford handbook of developmental psychology, Vol. 2. Self and other* (pp. 113–141). Oxford University Press. https://psycnet.apa.org/record/2013-01013-006

Shiner, R. L., & Allen, T. A. (2013). Assessing personality disorders in adolescents: Seven guiding principles. *Clinical Psychology: Science and Practice*, *20*(4), 361–377. https://doi.org/10.1111/cpsp.12047

Skoglund, T. H., Brekke, T.-H., Steder, F. B., & Boe, O. (2020). Big Five Personality Profiles in the Norwegian Special Operations Forces. *Frontiers in Psychology*, *11*, 747. https://doi.org/10.3389/fpsyg.2020.00747

Steca, P., Alessandri, G., & Caprara, G. V. (2010). The utility of a well-known personality typology in studying successful aging: Resilients, undercontrollers, and overcontrollers in old age. *Personality and Individual Differences*, *48*(4), 442–446. https://doi.org/10.1016/j.paid.2009.11.016

Stepp, S. D., Keenan, K., Hipwell, A. E., & Krueger, R. F. (2014). The impact of childhood temperament on the development of borderline personality disorder symptoms over the course of adolescence. *Borderline Personality Disorder and Emotion Dysregulation*, *1*(1), 18. https://doi.org/10.1186/2051-6673-1-18

Thomas, K. M., Yalch, M. M., Krueger, R. F., Wright, A. G. C., Markon, K. E., & Hopwood, C. J. (2013). The Convergent Structure of DSM-5 Personality Trait Facets and Five-Factor Model Trait Domains. *Assessment*, *20*(3), 308–311. https://doi.org/10.1177/1073191112457589

van Dijk, I., Krueger, R. F., & Laceulle, O. M. (2021). DSM–5 alternative personality disorder model traits as extreme variants of five-factor model traits in adolescents. *Personality Disorders: Theory, Research, and Treatment*, *12*(1), 59–69. https://doi.org/10.1037/per0000409

Vanheule, S., Desmet, M., Meganck, R., Inslegers, R., Willemsen, J., De Schryver, M., & Devisch, I. (2014). Reliability in Psychiatric Diagnosis with the DSM: Old Wine in New Barrels. *Psychotherapy and Psychosomatics*, *83*(5), 313–314. https://doi.org/10.1159/000358809

Watson, D., Stasik, S. M., Ro, E., & Clark, L. A. (2013). Integrating Normal and Pathological Personality: Relating the *DSM-5* Trait-Dimensional Model to General Traits of Personality. *Assessment*, *20*(3), 312–326. https://doi.org/10.1177/1073191113485810

Westen, D., & Arkowitz-Westen, L. (1998). Limitations of Axis II in Diagnosing Personality Pathology in Clinical Practice. *American Journal of Psychiatry*, *155*(12), 1767–1771. https://doi.org/10.1176/ajp.155.12.1767

Widiger, T. A., De Clercq, B., & De Fruyt, F. (2009). Childhood antecedents of personality disorder: An alternative perspective. *Development and Psychopathology*, *21*(3), 771–791. https://doi.org/10.1017/S095457940900042X

Widiger, T. A., Lynam, D. R., Miller, J. D., & Oltmanns, T. F. (2012). Measures to Assess Maladaptive Variants of the Five-Factor Model. *Journal of Personality Assessment*, *94*(5), 450–455. https://doi.org/10.1080/00223891.2012.677887

Widiger, T. A., & Mullins-Sweatt, S. N. (2009). Five-Factor Model of Personality Disorder: A Proposal for DSM-V. *Annual Review of Clinical Psychology*, *5*(1), 197–220. https://doi.org/10.1146/annurev.clinpsy.032408.153542

Widom, C. S., Czaja, S. J., & Paris, J. (2009). A Prospective Investigation of Borderline Personality Disorder in Abused and Neglected Children Followed Up into Adulthood. *Journal of Personality Disorders*, *23*(5), 433–446. https://doi.org/10.1521/pedi.2009.23.5.433

Winsper, C., Zanarini, M., & Wolke, D. (2012). Prospective study of family adversity and maladaptive parenting in childhood and borderline personality disorder symptoms in a non-clinical population at 11 years. *Psychological Medicine*, *42*(11), 2405–2420. https://doi.org/10.1017/S0033291712000542

Wolke, D., Schreier, A., Zanarini, M. C., & Winsper, C. (2012). Bullied by peers in childhood and borderline personality symptoms at 11 years of age: A prospective study: Peer victimisation and borderline personality disorder symptoms. *Journal of Child Psychology and Psychiatry*, *53*(8), 846–855. https://doi.org/10.1111/j.1469-7610.2012.02542.x

Wright, A. G. C., Ringwald, W. R., Hopwood, C. J., & Pincus, A. L. (2022). It's time to replace the personality disorders with the interpersonal disorders. *American Psychologist*, *77*(9), 1085–1099. https://doi.org/10.1037/amp0001087

Section 1
Shared and Unique Dispositions, Adaptations and Environments

Publication:

Koster, N., Laceulle, O. M., Van der Heijden, P. T., Klimstra, T., De Clercq, B., Verbeke, L., De Caluwé & Van Aken, M. A. (2019). A psychometric evaluation of a reduced version of the PID-5 in clinical and non-clinical adolescents. *European Journal of Psychological Assessment. 36 (5),* 758-766. https://doi.org/10.1027/1015-5759/a000552

Contribution:

NK, OL, PH and MA conceptualized the study. PH, MA, TK, and BC were responsible for data-collection. NK analyzed the data and wrote the first draft of the manuscript. All authors provided feedback on the manuscript.

Chapter 2

A psychometric **evaluation of a reduced version of the PID-5** in clinical and non-clinical adolescents

ABSTRACT

A dimensional perspective on personality pathology, in which trait assessment plays an important role, has been proposed in the DSM-5, as represented in the PID-5 measure. In an attempt to increase the feasibility of the personality disorder (PD) assessment process, Maples and colleagues constructed a reduced, 100-item version of the PID-5. This study aimed to replicate and extend previous findings on the psychometric properties of this 100-item PID-5, relying on a non-clinical (N = 100) and a clinical (N = 101) sample of mid-adolescents, as well as a non-clinical (N = 218) and a clinical (N = 212) sample of late-adolescents. Results indicate that the psychometric properties of the 100- item PID-5 are adequate and similar to the original PID-5 in all samples. Our study provides evidence for extended applicability of the 100-item PID-5 for both clinical and non-clinical adolescents.

High comorbidity and heterogeneity among individuals with personality disorders (PDs) reflect the poor scientific base for the categorical DSM-approach (e.g., Hopwood et al., 2018). Based on extensive theoretical and empirical support, a dimensional approach to personality pathology has therefore been suggested (Widiger & Trull, 2007). To facilitate the transition towards this perspective in clinical practice, a dimensional model has been adopted in a separate section of DSM-5 and has been endorsed as an important area for future research (American Psychiatric Association (APA), 2013). The description of PDs according to this dimensional model is based on the assessment of the level of severity in personality dysfunction (criterion A) and levels of a set of maladaptive personality traits (criterion B; Hopwood, Thomas, Markon, Wright & Krueger, 2012). Similarly, the 11th revision of the International Classification of Diseases (ICD-11) has underscored this dimensional approach by replacing all PD categories with one PD-diagnosis, specified with severity level of dysfunction and prominent trait domain qualifiers (World Health Organization, 2018).

Now that there is increasing consensus that PDs can already be reliably diagnosed in adolescence (e.g., Shiner & Allen, 2013), it is important to evaluate the clinical utility of this dimensional model in adolescents (Bach, Markon, Simonsen & Krueger, 2015; Shiner & Tackett, 2014). The examination of the validity of the trait components of this dimensional model in adolescents is an important first step. From this perspective, the aim of the present study is to evaluate a reduced version of the most commonly used measure (i.e., the PID-5) that operationalizes the DSM-5 criterion B trait-level across different groups of adolescents.

Assessment of PDs in adolescence

Dimensions of underlying PD characteristics are found to be relatively stable – in terms of rank order stability – and already traceable in late childhood. Treatment for PD symptoms, however, is typically not provided until late adolescence as clinicians are hesitant to use PD diagnoses in younger age groups (Kaess, Brunner & Chanen, 2014; Lieb, Zanarini, Schmahl, Linehan, & Bohus, 2004; Zanarini, Frankenburg, Khera, & Bleichmar, 2001). This has to do with concerns stemming from the historical belief that personality is not yet developed at a young age as well as reluctance to use stigmatizing labels in youth (Kaess et al., 2014). This is problematic since adolescent PD symptoms predict functioning in later life and early intervention has been shown to be beneficial (Chanen, Jovev, McCutcheon & Jackson, 2008; Widiger, De Clercq & De Fruyt, 2009). Therefore, there is an urgent need for valid and clinically useful assessment tools that are in line with the current shift towards a dimensional conceptualization of PDs and that facilitate the assessment of trait pathology in adolescence (Kaess et al., 2014).

Assessing maladaptive personality traits

Criterion B trait assessment in the DSM-5 Alternative Model of Personality Disorders (AMPD) has been operationalized in a 220-item self-report questionnaire, the Personality Inventory for DSM-5 (PID-5; APA, 2013; Krueger, Derringer, Markon, Watson & Skodol, 2012). The PID-5 subsumes 25 trait facets in five maladaptive trait domains: Negative Affectivity, Detachment, Antagonism, Disinhibition, and Psychoticism.

Research supports the validity and reliability of the original PID-5 for both adults and adolescents (De Caluwé, Verbeke, Van Aken, Van der Heijden & De Clercq, 2019; De Clercq et al., 2014; Krueger & Markon, 2014; Quilty, Ayearts, Chmielewski, Pollock & Bagby, 2013). However, with 220 items the PID-5 is lengthy and burdensome, especially for young patients with severe psychological problems. In addition, benefits from both clinical and research perspectives – like time efficiency in the diagnostic process and shorter instruments being easier to incorporate in multi-instrument designs – support the need for short, but valid and reliable instruments (Rolstad, Adler & Rydén, 2011).

A reduced version of the PID-5

Recently, Maples et al. (2015) used item-response theory (IRT) based analyses in non-patients samples to investigate whether a reduced 100-item version of the PID-5 could be a valid and reliable alternative for the original 220-item version. The resulting 100-item version was thereafter validated in an adult clinical sample, demonstrating adequate validity, reliability, and internal structure comparable to the original version (Maples et al., 2015). These findings were replicated in Danish adult samples of community-dwelling participants and psychiatric patients (Bach, Maples-Keller, Bo, & Simonsen, 2016), and a Dutch adult sample (Ashton, De Vries & Lee, 2017).

Studies validating this reduced PID-5 measure in younger samples are lacking. The incremental value of instruments that assist in early detection, potentially leading to early intervention of personality pathology in adolescents, underscores the potential importance of such validation work.

Current study

In the current study we aim to replicate and extend the work by Maples et al. (2015). Relying on two clinical and two community samples of mid and late-adolescents, we assess the psychometric properties of the 100-item PID-5 relative to the original PID-5. We analyze the samples separately to be able to compare psychometric properties between age-groups and across clinical status. Still, we expect the psychometric properties of the 100-item reduced version to be adequate, and similar to the original

version, in all four samples. Additionally we expect to find support for its convergent and discriminant validity. This implies that we expect strong between-version correlations of the same trait domains (e.g., between Disinhibition in the original and reduced version) and relatively weak within-version correlations between different trait domains (e.g., between Disinhibition and Antagonism in the reduced version). Big Five trait measures are additionally available for the late-adolescent sample. Since the PID-5 trait domains can be considered as maladaptive variants of the Big Five traits, investigating the associations between these traits allows us to assess construct validity in the late-adolescent samples (Quilty et al., 2013). We expect strong associations between the maladaptive trait domains and their Big Five variant and weak associations between the domains and the other Big Five variants.

METHOD

Participants and procedure

We used data from four existing samples of clinical and community mid- and late-adolescents whom were roughly similar in age.

Clinical samples: The first clinical sample was drawn from the fourth wave of a larger study (response rate = 71%; De Bolle, Beyers, De Clercq & De Fruyt, 2012). It consisted of 101 mid-adolescents (55% female) between 12-19 years (*Mean age* = 15.1, *SD* = 1.8), referred to mental health services for various psychiatric problems. All participants received a package by mail, including the information letter, informed consent form, questionnaires and a 5-euro voucher for compensation. Participants were asked to complete the questionnaires and return them by mail. The Ghent University Ethical Review Board approved this study (protocol number 2015/65) and all adolescents provided written informed consent.

The second clinical sample consisted of 212 late-adolescents (response rate of 28%; 71% female; De Caluwé, et al., 2019; Verbeke, De Clercq, Van der Heijden, Hutsebaut & van Aken, 2017) between 13-24 years (*Mean age* = 20.1, *SD* = 2.4). These outpatients were referred to two mental health institutes in the Netherlands for various psychiatric problems. After providing informed consent, participants received a letter from their therapist with a login code to access an online assessment tool. The study was carried out in accordance with the Declaration of Helsinki and the Guidelines for Good Clinical Practice established by the International Conference on Harmonization (CPMP=ICH=135=95). The confidentiality of participants' identities was maintained throughout the study process. The Ethical Review Board of the

mental health care institute approved this study and written informed consent was obtained from all adolescents.

Community samples: The first community sample consisted of 100 mid-adolescents (81% female) between 14-18 years (*Mean age* = 15.9, *SD* = 0.9) that were recruited by undergraduate students of Ghent University. Students recruited their subjects randomly via high schools for which they received course credits. Subjects and their parents provided informed consent and completed the questionnaires at home.

The second community sample consisted of 218 late-adolescents (74% female) between 17-31 years old (*Mean age* = 19.5, *SD* = 1.9), who were psychology freshmen at Tilburg University. These students were asked to complete these questionnaires as part of their education and earned course credits in return.

Measures

PID-5. All participants completed the 220-item Personality Inventory for DSM-5 (PID-5; Krueger et al., 2012). Scores are generated from a 4-point response scale ranging from very false (0) to very true (3). Items are organized in 25 trait facets, hierarchically structured in five maladaptive trait domains. Reliability coefficients and factor structure for the Dutch language version were comparable to those reported in US samples (De Fruyt, De Clercq, De Bolle, Wille, Markon, & Krueger, 2013; De Clercq et al., 2014). Concurrent validity with other dimensional PD measures and age-neutrality of the items have been demonstrated (De Caluwé, et al., 2019; Van den Broeck, Bastiaansen, Rossi, Dierckx, De Clercq, 2013; Van den Broeck, Bastiaansen, Rossi, Dierckx, De Clercq & Hofmans, 2014). Recent guidelines of the American Psychiatric Association (see also Maples et al., 2015, p. 1198) suggest that three trait facets primarily contribute to each domain, (APA, 2013; Krueger et al., 2012; https://www.psychiatry.org/File%20Library/Psychiatrists/Practice/DSM/APA_DSM5_The-Personality-Inventory-For-DSM-5-Full-Version-Adult.pdf). For example, Negative Affectivity can be constructed as the average score of the trait facets emotional lability, anxiousness, and separation insecurity.

The 100 items that comprise the reduced PID-5 version (Maples, et al., 2015) were extracted from the original PID-5 and were analyzed as the reduced version to enable comparison between these two versions.

Big Five Inventory. The late-adolescent samples completed the 44-item Big Five Inventory (BFI; John, Donahue, & Kentle, 1991). General personality trait scores are generated from a 5-point response scale ranging from disagree strongly (1) to agree strongly (5). Psychometric properties of the Dutch language version of the BFI tend

to be adequate (Denissen, Geenen, Van Aken, Gosling, & Potter, 2008) and internal consistency as shown by Cronbach alphas of the five traits ranged from .74 to .86 in the current study.

Statistical analyses

To assess the psychometric properties of the 100-item PID-5 we followed the analysis strategy of Maples et al. (2015) in the four samples separately. We performed reliability, factor and correlation analyses using IBM SPSS Statistics 25 (see supplementary materials for input and output of these analyses). Tucker congruence coefficients, indicating the degree of similarity in factor structures, were calculated by multiplying the factor loadings of the original PID-5 with the corresponding loadings in the 100-item PID-5 version. These products were summed and divided by the square root of the sum of the squared loadings of the original version times the sum of the squared loadings of the reduced version (Wuensch, 2016). Values <.85 indicate poor similarity, values between .85–.94 indicate fair similarity, and values >.95 indicate equality (Lorenzo-Seva & Ten Berge, 2006). Convergent and discriminant validity correlations were assessed with within- and between-form correlations, indicating the link between each PID-5 trait domain and other trait domains in the original and reduced scales. Construct validity was assessed in relation to Big Five scores. To assess the similarity of discriminant and construct validity for both PID-5 versions, shape equivalence of the correlation profiles was compared between the two versions (Furr, 2010). For example, the correlation between Antagonism and Detachment in the 100-item PID-5 was correlated with the correlation between Antagonism and Detachment in the original PID-5. Correlations >.80 were considered as indicative of similarity.

RESULTS

Internal consistency

Facet internal consistency was overall acceptable to good in all samples and in both versions (see Table A in supplementary material for detailed information). In the original version, 92% of the alphas >.70 and 68% >.80. In the 100-item version, 80% >.70 and 42% >.80. The facets Irresponsibility and Suspiciousness demonstrated problematic internal consistency for the clinical mid-adolescents and the non-clinical mid- and late-adolescents, with Cronbach's alphas <.70. The facet Impulsivity showed poor internal consistency for the non-clinical late-adolescents. Overall, means and medians for facet internal consistency scores were generally good (>.80) in the full version and acceptable (>.70) in the reduced version. Trait domain internal consistency

was good to excellent in the original version (all scales >.80, with 65% > .90) and acceptable to excellent in the reduced version (90% of the scales >.80 and 10% > .90).

Factor analysis

Factor structures were analyzed with confirmatory factor analyses with equamax rotation (see Table B in supplementary material for results of five-factor solutions). Factor loadings are reported for all 25 trait facets. Congruence coefficients, were .97, .94, .93, .95, .97 for the non-clinical mid-adolescents, .98, .99, .97, .97, .93 for the non-clinical late-adolescents, .89, .57, .79, .74, .37 for the clinical mid-adolescents and were .94, .97, .82, .68, .85 for the clinical late-adolescents. We found many cross-loadings of trait facets on non-intended trait domains. This was particularly the case for trait facets that are not taken into account when constructing the trait domain scores (APA, 2013; Krueger et al., 2012). When only considering the three trait facets primarily contributing to each domain in the factor analyses, congruence coefficients were .96, .96, 1.00, .87, .97 for the non-clinical mid-adolescents, .99, 1.00, .99, .99, .98 for the non-clinical late-adolescents, .89, .92, .95, .95, .70 for the clinical mid-adolescents and were .98, .97, .96, .95, .96 for the clinical late-adolescents. Therefore, trait domains were constructed from the three trait facets primarily contributing to each domain (see Table C in supplementary material for means and *SDs*).

Convergent validity

Convergent trait domain correlations, indicating the association between the same trait domains of the two PID-5 versions, were high in all samples with all values >.91 (see Table 1). Facet-level convergent correlations for the non-clinical and clinical mid-adolescents ranged from .85 to 1.00 (M = .92, Mdn = .93) and from .82 to 1.00 (M = .92; Mdn = .93), respectively. Facet-level convergent correlations for the non-clinical and clinical late-adolescents ranged from .69 to 1.00 (M = .91; Mdn = .93), and from .76 to 1.00 (M = .92; Mdn = .92), respectively.

Discriminant validity

The discriminant trait domain correlations, indicating the association between different trait-domains within forms, ranged from -.02 to .67 for the original PID-5 version and from .03 to .67 for the 100-item version (see Table 1). The shape similarity of these discriminant correlation profiles for the original and the reduced scales was examined in all samples using a Pearson correlation-based similarity index, after performing Fisher's r-to-Z transformations. This agreement was .83 and .99 for the non-clinical and the clinical mid-adolescents, and .95 and .94 for the non-clinical and the clinical late-adolescents, respectively.

Construct validity (late-adolescent samples only)

Construct validity (i.e., correlations with Big Five traits) generally was high for both the original and the 100-item PID-5 version, as the PID-5 trait domains showed high and significant correlations with their Big Five counterparts and low correlations with the other Big Five traits (see Table 2). One exception was Agreeableness in the non-clinical group, which was most strongly correlated to Detachment instead of Antagonism. Moreover, in the clinical group the positive association between Psychoticism and Openness was as strong as the negative association between Psychoticism and Agreeableness. The correlation coefficients were transformed into *Z*-scores and profile agreement was examined. This agreement was .99 for the non-clinical and .99 for the clinical late-adolescents.

Table 1. *Assessment of Convergent (between version correlations) and Discriminant (within version correlations) validity.*

		Negative Affectivity		Detachment		Antagonism		Disinhibition		Psychoticism	
		O	***R***	***O***	***R***	***O***	***R***	***O***	***R***	***O***	***R***
Negative Affectivity	NCMA	**.97**	-	.29	.43	.30	.28	.31	.33	.47	.41
	CMA	**.97**	-	.37	.39	.23	.22	.26	.26	.55	.51
	NCLA	**.98**	-	.24	.26	.11	.10	.23	.25	.38	.35
	CLA	**.91**	-	.24	.27	.05	.06	.28	.32	.40	.34
Detachment	NCMA			**.94**	-	.19	.26	.27	.31	.44	.47
	CMA			**.97**	-	-.01	.06	.38	.36	.42	.42
	NCLA			**.96**	-	.28	.34	.20	.24	.42	.45
	CLA			**.96**	-	-.02	.03	.21	.12	.35	.29
Antagonism	NCMA					**.98**	-	.67	.67	.54	.43
	CMA					**.98**	-	.53	.49	.58	.58
	NCLA					**.98**	-	.42	.40	.45	.42
	CLA					**.93**	-	.40	.30	.40	.34
Disinhibition	NCMA							**.96**	-	.56	.40
	CMA							**.96**	-	.64	.53
	NCLA							**.96**	-	.45	.38
	CLA							**.92**	-	.47	.35
Psychoticism	NCMA									**.96**	-
	CMA									**.96**	-
	NCLA									**.94**	-
	CLA									**.93**	-

Note. **convergent correlations,** discriminant correlations. NCMA = Non-Clinical Mid-Adolescents, CMA = Clinical Mid-Adolescents, NCLA = Non-Clinical Late-Adolescents, CLA = Clinical Late-Adolescents. The original and reduced version was used for the discriminant correlations.

Convergent correlations in all samples are all sign. at a $p < .01$ level; Discriminant correlations in the NCMA sample are sign. at $p \leq .05$ at .21 and at $p \leq .01$ at .26; in the NCLA sample at $p \leq .01$ at .23; Discriminant correlations in the CMA sample are sign. at $p \leq .05$ at .22 and at $p \leq .01$ at .26; in the CLA sample at $p \leq .01$ at .21

Table 2. *Correlations between PID-5 Trait Domains and Big Five Trait Counterparts*

		Negative Affectivity		Detachment		Antagonism		Disinhibition		Psychoticism	
		O	***R***	***O***	***R***	***O***	***R***	***O***	***R***	***O***	***R***
Neuroticism	NCLA	**.63**	**.61**	.17	.14	-.14	-.13	.04	.06	.07	.03
	CLA	**.54**	**.51**	.35	.35	.08	.08	.25	.24	.22	.15
Extraversion	NCLA	-.23	-.23	**-.44**	**-.37**	.05	.03	-.01	-.01	-.18	-.18
	CLA	-.15	-.19	**-.60**	**-.56**	.18	.17	.05	.06	-.02	.01
Agreeableness	NCLA	-.03	-.03	-.28	-.27	**-.11**	**-.10**	-.10	-.08	-.07	-.09
	CLA	-.16	-.14	-.39	-.40	**-.54**	**-.58**	-.39	-.32	-.34	-.34
Conscientiousness	NCLA	.06	.07	-.12	-.12	-.17	-.15	**-.52**	**-.47**	-.22	-.17
	CLA	-.07	-.08	-.17	-.19	-.22	-.25	**-.66**	**-.59**	-.11	-.09
Openness	NCLA	-.05	-.03	.01	.03	.14	.11	.05	.04	**.27**	**.22**
	CLA	.09	.06	-.09	-.12	.23	.20	.01	.00	**.36**	**.31**

Note. Correlations in the original NCLA sample are significant at $p \leq .05$ at .14 and at $p \leq .01$ at -.18; in the reduced NCLA sample at $p \leq .05$ at .14 and at $p \leq .01$ at -.18. Correlations in the original CLA sample are significant at $p \leq .05$ at -.16 and at $p \leq .01$ at -.22; in the reduced CLA sample at $p \leq .05$ at .17 and at $p \leq .01$ at .24

DISCUSSION

This study suggests that the 100-item PID-5, on which a DSM-5 PD diagnosis can be stooled (APA, 2013), reliably and validly measures five maladaptive traits in adolescence. In line with previous results in adults (Maples et al., 2015), we found similar psychometric properties of the 100-item and original PID-5 version across four samples of non-clinical and clinical mid- and late-adolescents.

Internal consistency coefficients of all trait domains and almost all trait facets of the 100-item PID-5 were acceptable to good in all samples. This suggests that all trait domain scores can be used reliably for adolescents, whereas some trait facet scores should be used with more caution. Especially the trait facets Impulsivity, Irresponsibility, and Suspiciousness demonstrated poor internal consistencies in several samples, reflecting the fact that overall adolescents seem less able to adequately report on these trait characteristics (De Caluwé et al., 2019; De Clercq et al., 2014). In accordance with Maples et al. (2015), however, it is noteworthy that the 100-item PID-5 shows only a small decline in internal consistency while it comprises less than half of the number of items of the original version.

In addition, findings revealed that a five-factor structure fitted the data reasonably well, congruence coefficients in both versions ranged from fairly similar to equal. Multiple cross-loadings were found in all samples, especially for trait facets not primarily contributing to the trait domains. This suggests that constructing the trait domains from their three most defining trait facets results in a clearer distinguished factor-structure (De Caluwé et al., 2019). Investigating all 25 trait facets, however, remains important for the clinical utility of the PID-5, for instance for diagnostic decisions on individual personality pathology and the focus of treatment (Wright & Simms, 2014).

Furthermore, the pattern of correlations suggests comparable validity of the reduced and original version. Strong associations between the PID-5 domains and their BFI counterparts, moreover, suggest acceptable construct validity in line with previous findings (De Caluwé et al., 2019; Maples, et al., 2015; Quilty et al., 2013). One remarkable finding was that the positive association between Psychoticism and its counterpart Openness was as strong as the negative association between Psychoticism and Agreeableness in the clinical group. This was not the case in the non-clinical group. This association between Psychoticism and low Agreeableness is well-documented – individuals with higher levels of Psychoticism tend to be more hostile, impulsive, aggressive, and egocentric (McCroskey, Heisel & Richmond, 2001). In fact, in Eysenck's (1947) tripartite model, the Psychoticism dimension is described as

a continuum ranging from Low Psychoticism (altruistic, socialized (agreeable) behavior) to high Psychoticism (hostile, aggressing (disagreeable) behavior). Both aggressive traits as well as creative traits load on the higher factor Psychoticism (Eysenck, 1992). Interestingly, this association was only found in the clinical group. Potentially, the higher frequency of endorsement of the more maladaptive items on the Psychoticism scale – which is expected in the clinical but not the non-clinical group – taps into this tendency to act independent of group norms (Charlton, 2009). As such, it is plausible that this association was more distinguished in the clinical group. Future studies should further investigate to what extent Psychoticism might be associated with different normal-range trait domains in clinical and non-clinical groups. Moreover, in the non-clinical group we found that the association between Antagonism and its counterpart Agreeableness was as strong as the association between Detachment and Agreeableness. One explanation may be that the items used to measure Antagonism do not capture 'low Agreeableness' well enough – at least not in a non-clinical sample where severe maladaptive antagonistic tendencies are absent. The association between Detachment and Agreeableness could hint at what Disagreeableness might (also) represent in a non-clinical group. Detached vs. Agreeable behavior may be reflected in the dimension of social withdrawal vs. social approach behavior. Detachment has been found to be negatively associated with social approach behavior and positively associated with introversion (Krueger at al., 2011; Wright & Simms, 2014). As such, the construct Detachment may represent more than only facets of its BFI counterpart Extraversion, but also incorporate other trait-dimensions such as facets of Agreeableness (Watson, Stasik, Ro & Clark, 2013).

Limitations, implications, and conclusion

One important limitation of this study concerns content validity. Although we find highly similar internal consistency in the two versions despite the major reduction in items, the scope of maladaptive aspects covered by the reduced version may be significantly less comprehensive. This may result in a reduced sensitivity to change, for instance between pre- and post-treatment assessment. In addition, it must be noted that we used the reduced PID-5 version as proposed by Maples et al. (2015), which was based on results of a community sample. Items that would be endorsed by a clinical sample could have been unjustly deleted in this version. It is important to investigate whether IRT-based analyses in clinical samples would select the same set of 100 items. It may be stated however, that results of construct validity tests in this and previous studies, do seem to show the expected associations with related constructs (Ashton et al., 2017; Bach et al., 2016; Maples et al., 2015). We suggest future studies to focus on the content validity of the reduced version of the PID-5 in more detail – for example by looking at facet-level validity, using different measures of facet-level concepts – in different samples with multi-informant or multi-method approaches.

Generally lower Cronbach alphas of the trait-facets were found; as could be expected given its reliance on number of items. Further research focusing on test-retest reliability and accounting for standard error of measurement could provide further insight in the usefulness of facet scores. In addition, we extracted the reduced version from the original version in this study. This leaves it unclear whether there is equivalence between a stand-alone reduced version and a reduced version nested in the full set of items. Future studies could investigate if results replicate with independent assessment of the reduced and original version.

Despite these limitations, our findings suggest that the psychometric properties of the 100-item PID-5 are comparable to those of the original version. The 100-item PID-5 seems a reliable and valid instrument to assess maladaptive personality trait domains and facets in clinical and non-clinical adolescents. This does not necessarily mean that the original PID-5 version should not be used anymore. However, the availability of this reduced questionnaire may increase the use of the dimensional model to diagnose and describe personality pathology in adolescents. The vast time-reduction for assessment makes this questionnaire clinically more useful when diagnostic assessment is time-sensitive and an indication of trait-domains and a gross indication of trait-facets is sufficient. Trait-facet scores seem, at this point with this instrument, less optimal to draw strong diagnostic conclusions. Importantly – because this instrument is a dimensional trait evaluation and the dimensional model is stooled on the close alignment between normative and maladaptive personality development – a diagnosis may be considered less stigmatizing and more developmentally appropriate. This may stimulate clinicians to become less hesitant to use PD diagnoses in adolescence which is essential since adolescence might be a period in which young people experience the first problems in personality functioning as precursors of more severe personality pathology (Shiner, 2009; Tackett & Kushner, 2014). Moreover, the availability of this reduced measure enables researchers to embed it in studies examining (maladaptive) trait organization and personality functioning, so that a large body of research may become available to examine and refine the DSM-5 section III model of PDs and facilitate its inclusion in section II in a next edition of the DSM.

REFERENCES

Allen, P., & Bennett, K. (2010). *PASW statistics by SPSS a practical guide version 18.0.* Cengage Learning Australia: South Melbourne, Victoria.

American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*. Arlington, VA.

American Psychiatric Association (2013). *Personality Trait Facet and Domain Scoring: The Personality Inventory for DSM-5 (PID-5)—Adult*. Retrieved from: https://www.psychiatry.org/File%20Library/Psychiatrists/Practice/DSM/APA_DSM5_The-Personality-Inventory-For-DSM-5-Full-Version-Adult.pdf

Ashton, M. C., de Vries, R. E., & Lee, K. (2017). Trait variance and response style variance in the scales of the Personality Inventory for DSM–5 (PID–5). *Journal of Personality Assessment*, *99*, 192-203. DOI:10.1080/00223891.2016.1208210

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

Bach, B., Markon, K., Simonsen, E., & Krueger, R. F. (2015). Clinical utility of the DSM-5 alternative model of personality disorders: Six cases from practice. *Journal of Psychiatric Practice*, *21*, 3-25. DOI:10.1097/01.pra.0000460618.02805.ef

Charlton, B. G. (2009). Why are modern scientists so dull? How science selects for perseverance and sociability at the expense of intelligence and creativity. *Medical Hypotheses, 72,* 237-243. DOI:10.1016/j.mehy.2008.11.020

De Bolle, M., Beyers, W., De Clercq, B., & De Fruyt, F. (2012). General personality and psychopathology in referred and nonreferred children and adolescents: An investigation of continuity, pathoplasty, and complication models. *Journal of Abnormal Psychology, 121*, 958–970. DOI:10.1037/a0027742

De Caluwé, E., Verbeke, L., van Aken, M., van der Heijden, P., & De Clercq, B. (2019). The DSM-5 trait measure in a psychiatric sample of late adolescents and emerging adults: Structure, reliability and validity. *Journal of Personality Disorders, 33*, 101-118. DOI: 10.1521/pedi_2018_32_333.

De Clercq, B., De Fruyt, F., De Bolle, M., Van Hiel, A., Markon, K. E., & Krueger, R. F. (2014). The hierarchical structure and construct validity of the PID-5 trait measure in adolescence. *Journal of Personality*, *82*, 158-169. DOI:10.1111/jopy.12042

De Fruyt, F., De Clercq, B., De Bolle, M., Wille, B., Markon, K., & Krueger, R. F. (2014). General and maladaptive traits in a five-factor framework for DSM-5 in a university student sample. *Assessment*, *20*, 295-307. DOI:10.1177/1073191113475808

Denissen, J. J., Geenen, R., Van Aken, M. A., Gosling, S. D., & Potter, J. (2008). Development and validation of a Dutch translation of the Big Five Inventory. *Journal of Personality Assessment*, *90*, 152-157. DOI:10.1080/00223890701845229

Eysenck, H. J. (1947). Dimensions of personality. New York: Praeger.

Eysenck, H. J. (1992). The definition and measurement of psychoticism. *Personality and individual differences*, *13*, 757-785. DOI:10.1016/0191-8869(92)90050-Y

Furr, R. M. (2010). The Double-Entry Intraclass Correlation as an Index of Profile Similarity: Meaning, Limitations, and Alternatives. *Journal of Personality Assessment, 92*, 1-15 DOI:10.1080/00223890903379134

Hopwood, C. J., Kotov, R., Krueger, R. F., Watson, D., Widiger, T. A., Althoff, R. R., ... &

Bornovalova, M. A. (2018). The time has come for dimensional personality disorder diagnosis. *Personality and mental health*, *12*, 82-86. DOI:10.1002/pmh.1408

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

John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *The Big Five Inventory--Versions 4a and 54*. Berkeley, CA: Institute of Personality and Social Research.

Kaess, M., Brunner, R., & Chanen, A. (2014). Borderline personality disorder in adolescence. *Pediatrics, 134,* 782-793. DOI:10.1542/peds.2013-3677

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

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

Lorenzo-Seva, U., & Ten Berge, J. M. (2006). Tucker's congruence coefficient as a meaningful index of factor similarity. *Methodology*, *2*, 57-64. DOI:10.1027/1614-2241.2.2.57

Maples, J. L., Carter, N. T., Few, L. R., Crego, C., Gore, W. L., Samuel, D. B., ... & Krueger, R. F. (2015). Testing whether the DSM-5 personality disorder trait model can be measured with a reduced set of items: An item response theory investigation of the Personality Inventory for DSM-5. *Psychological assessment*, *27*, 1195-1210. DOI:10.1037/pas0000120

McCroskey, J., Heisel, A., & Richmond V. (2001) Eysenck's Big Three and communication traits: three correlational studies. *Communication Monographs*, *68,* 360-366, DOI:10.1080/03637750128068

Muthén, L.K., & Muthén, B.O. (2012). Mplus user's guide (seventh edition). LA, CA: Muthén & Muthén.

Quilty, L. C., Ayearst, L., Chmielewski, M., Pollock, B. G., & Bagby, R. M. (2013). The psychometric properties of the Personality Inventory for the DSM-5 in an APA DSM-5 field trial sample. *Assessment, 20,* 362-369. DOI:10.1177/1073191113486183

Rolstad, S., Adler, J., & Rydén, A. (2011). Response burden and questionnaire length: is shorter better? A review and meta-analysis. *Value in Health, 14,* 1101-1108. DOI:10.1016/j.jval.2011.06.003

Shiner, R. L., & Allen, T. A. (2013). Assessing personality disorders in adolescents: Seven guiding principles. *Clinical Psychology: Science and Practice, 20*, 361-377. DOI:10.1111/cpsp.12047

Shiner, R. L., & Tackett, J. L. (2014). Personality disorders in children and adolescents. In E.

J. Mash & R. A. Barkley (Eds.), *Child psychopathology, 3rd edition* (pp. 848-896) The Guilford Press, New York, NY.

Tackett, J. L., & Kushner, S. C. (2014). Conceptualizing youth borderline personality Disorder within a normative personality framework. In *Handbook of Borderline Personality Disorder in Children and Adolescents* (pp. 95-110). Springer, New York, NY.

Van den Broeck, J., Bastiaansen, L., Rossi, G., Dierckx, E., & De Clercq, B. (2013). Age- neutrality of the trait facets proposed for personality disorders in DSM-5: A DIFAS analysis of the PID-5. *Journal of Psychopathology and Behavioral Assessment*, *35*, 487-494. DOI:10.1007/s10862-013-9364-3

Van den Broeck, J., Bastiaansen, L., Rossi, G., Dierckx, E., De Clercq, B., & Hofmans, J. (2014). Hierarchical structure of maladaptive personality traits in older adults: Joint factor analysis of the PID-5 and the DAPP-BQ. *Journal of Personality Disorders*, *28*, 198-211. DOI:10.1521/pedi_2013_27_114

Verbeke, L., De Clercq, B., Van der Heijden, P., Hutsebaut, J., & van Aken, M. A. G. (2017).

The relevance of schizotypal traits for understanding interpersonal functioning in adolescents with psychiatric problems. *Personality Disorders: Theory, Research and Treatment, 8*, 54-63. DOI:10.1037/per0000163

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

Widiger, T. A., De Clercq, B., & De Fruyt, F. (2009). Childhood antecedents of personality disorder: An alternative perspective. *Development and Psychopathology*, *21*, 771-791. DOI:10.1017/S095457940900042X

Widiger, T. A., & Trull, T. J. (2007). Plate tectonics in the classification of personality disorder: shifting to a dimensional model. *American Psychologist*, *62*, 71-83. DOI:10.1037/0003-066X.62.2.71

Wright, A. G., & Simms, L. J. (2014). On the structure of personality disorder traits: conjoint analyses of the CAT-PD, PID-5, and NEO-PI-3 trait models. *Personality Disorders: Theory, Research, and Treatment*, *5*, 43-54. DOI:10.1037/per0000037

Wuensch, K. L. (2016). *Comparing two groups' factor structures: Pearson r and the coefficient of congruence*. Retrieved from http://core.ecu.edu/psyc/wuenschk/MV/FA/FactorStructure-TwoGroups.docx.

Table A. *Cronbach's Alphas for the Facets (#items O/R) in the Original and Reduced Version of the PID-5.*

	NCMA		CMA		NCLA		CLA	
	O	***R***	***O***	***R***	***O***	***R***	***O***	***R***
Anhedonia (8/4)	.71	.62	.85	.82	.83	.73	.90	.86
Anxiousness (9/4)	.88	.81	.86	.82	.88	.80	.87	.82
Attention Seeking (8/4)	.90	.90	.85	.80	.85	.83	.86	.85
Callousness (14/4)	.84	.85	.83	.77	.85	.80	.90	.87
Deceitfulness (10/4)	.84	.73	.86	.69	.85	.76	.86	.79
Depressivity (14/4)	.91	.83	.94	.92	.89	.81	.94	.90
Distractibility (9/4)	.84	.86	.87	.85	.89	.87	.90	.90
Eccentricity (13/4)	.94	.85	.93	.85	.95	.88	.93	.83
Emotional Lability (7/4)	.85	.78	.87	.82	.89	.84	.88	.83
Grandiosity (6/4)	.81	.78	.73	.68	.80	.79	.75	.77
Hostility (10/4)	.85	.78	.88	.80	.81	.75	.89	.83
Impulsivity (6/4)	.77	.74	.72	.63	.69	.45	.81	.63
Intimacy Avoidance (6/4)	.74	.70	.77	.78	.85	.82	.85	.79
Irresponsibility (7/4)	.58	.60	.66	.45	.69	.60	.76	.61
Manipulativeness (5/4)	.88	.87	.83	.79	.85	.83	.86	.84
Perceptual Dysregulation (12/4)	.87	.72	.84	.70	.76	.61	.85	.71
Perseveration (9/4)	.81	.66	.77	.74	.78	.72	.77	.71
Restricted Affectivity (7/4)	.75	.73	.77	.72	.81	.77	.78	.72
Rigid Perfectionism (10/4)	.88	.77	.87	.84	.87	.81	.88	.78
Risk Taking (14/4)	.86	.86	.92	.90	.88	.83	.89	.86
Separation Insecurity (7/4)	.69	.61	.72	.65	.72	.69	.76	.73
Submissiveness (4/4)	.77	.77	.75	.75	.74	.74	.76	.76
Suspiciousness (7/4)	.57	.62	.55	.53	.67	.63	.75	.71
Unusual behavior/experience (8/4)	.85	.76	.82	.74	.77	.67	.83	.72
Withdrawal (10/4)	.88	.69	.92	.81	.89	.74	.91	.81

Note. NCMA = non-clinical mid-adolescents, CMA = clinical mid-adolescents, NCLA = non-clinical late-adolescents,
CLA = clinical late-adolescents. O = original version, R = reduced version, (../..) = number of items for the original and reduced version respectively.

Table B. *Factor-Loadings for a 5 Factor Structure in a Non-Clinical/Clinical Sample of Mid- and Late-adolescents.*

		Factor 1		Factor 2		Factor 3		Factor 4		Factor 5	
		O	***R***	***O***	***R***	***O***	***R***	***O***	***R***	***O***	***R***
Negative Affectivity											
Anxiousness	Mid	.76/.77	.67/.74								
	Late	.76/.66	.75/.77								
Emotional Lability	Mid	.81/.81	.72/.67								
	Late	.80/.73	.72/.70								
Separation Insecurity	Mid	.72/.35	.69/.56								
	Late	.71/.76	71/.64								
Hostility	Mid	.31/.44	.39/.30								
	Late	.34/.39	.44/.34								
Perseverance	Mid	.30/.44	.29/.40								
	Late	.39/.25	.46/.48								
Restricted Affectivity	Mid	.31/.06	.51/.05								
	Late	.37/.32	.32/.30								
Submissiveness	Mid	.55/-.03	.30/.06								
	Late	.50/.08	.57/.20								
Detachment											
Anhedonia	Mid			.82/.69	.78/.60						
	Late			.81/.67	.80/.61						
Intimacy Avoidance	Mid			.40/.78	.16/.78						
	Late			.60/.64	.57/.74						
Withdrawal	Mid			.77/.77	.59/.75						
	Late			.79/.81	.75/.77						
Depressivity	Mid			.53/.45	.68/.56						
	Late			.58/.55	.67/.56						
Suspiciousness	Mid			.46/.12	.55/.32						
	Late			.57/.54	.61/.43						

Table B. *Factor-Loadings for a 5 Factor Structure in a Non-Clinical/Clinical Sample of Mid- and Late-adolescents. Continue*

		Factor 1		Factor 2		Factor 3		Factor 4		Factor 5	
		O	***R***	***O***	***R***	***O***	***R***	***O***	***R***	***O***	***R***
Antagonism											
Deceitfulness	Mid					.65/.75	.46/.67				
	Late					.77/.77	.72/.54				
Grandiosity	Mid					.63/.81	.60/.73				
	Late					.63/.29	.72/.62				
Manipulativeness	Mid					.75/.72	.60/.58				
	Late					.81/.67	.77/.75				
Attention Seeking	Mid					.59/.71	.34/.54				
	Late					.62/.54	.68/.40				
Callousness	Mid					.50/.57	.66/.68				
	Late					.72/.66	.63/.62				
Disinhibition											
Distractibility	Mid							.68/.26	.61/.08		
	Late							.74/.60	.72/.48		
Impulsivity	Mid							.65/.72	.71/.61		
	Late							70/.16	.62/.54		
Irresponsibility	Mid							.66/.63	.64/.47		
	Late							56/.44	.53/.75		
Rigid Perfectionism	Mid							.30/.27	.15/-.12		
	Late							.23/-.06	.16/.08		
Risk Taking	Mid							.68/.74	.75/.77		
	Late							.60/.07	.65/.43		
Psychoticism											
Eccentricity	Mid									.73/-.00	.74/.06
	Late									.48/.59	.39/.57

Table B. *Factor-Loadings for a 5 Factor Structure in a Non-Clinical/Clinical Sample of Mid- and Late-adolescents. Continue*

		Factor 1		Factor 2		Factor 3		Factor 4		Factor 5	
		O	***R***	***O***	***R***	***O***	***R***	***O***	***R***	***O***	***R***
Perceptual	Mid									.66/.19	.71/.17
Dysregulation	Late									.68/.67	.76/.76
Unusual behavior/	Mid									.82/.12	.76/.16
experience	Late									.75/.77	.81/.83

Note. Results are reported for mid- and late adolescents separately for the non-clinical/clinical sample.

All other factor loadings can be requested from the first author.

Facets in italics (3 facets) are used to create the trait domains (APA, 2013; Krueger, et al., 2012).

Table C. *Means and SDs of the Trait Domains of the Original and Reduced version of the PID-5*

		NCMA		CMA		NCLA		CLA	
		M	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
Negative Affectivity	O	1.25	.51	1.29	.51	1.10	.48	1.64	.63
	R	1.19	.56	1.28	.57	.98	.55	1.62	.63
Detachment	O	.52	.33	.63	.50	.46	.37	1.19	.57
	R	.43	.33	.54	.52	.34	.36	1.10	.61
Antagonism	O	.64	.50	.77	.50	.74	.45	.73	.46
	R	.56	.52	.66	.49	.64	.47	.65	.50
Disinhibition	O	.98	.43	1.11	.48	.93	.38	1.29	.49
	R	.98	.51	1.14	.51	.95	.42	1.31	.51
Pychoticism	O	.60	.53	.70	.49	.51	.38	.93	.50
	R	.47	.50	.56	.49	.36	.37	.79	.52

Publication:

Koster, N., Hopwood, C. J., Goodman, M., & Zanarini, M. C. (2019). Correlates between Five-Factor Model traits and the Revised Diagnostic Interview for Borderlines dimensions in an adolescent clinical sample. *Personality and Mental Health, 13(4),* 197-204. https://doi.org/10.1002/pmh.1459

Contribution:

NK and CH conceptualized the study. MG and MZ were responsible for data-collection. NK analyzed the data and wrote the first draft of the manuscript. All authors provided feedback on the manuscript.

Chapter 3

Correlates between **Five-Factor Model traits and the revised diagnostic interview for borderlines dimensions** in an adolescent clinical sample

ABSTRACT

Extensive evidence supports the association between Five Factor Model (FFM) traits involving high Neuroticism, low Agreeableness, and low Conscientious, and Borderline Personality Disorder (BPD) characteristics, particularly among adults in community samples. However, studies supporting this link in adolescent samples are relatively limited and few studies have examined the links between FFM traits and specific dimensions of BPD, such as those distinguished by the Revised Diagnostic Interview for Borderlines (DIB-R). In this study we examined associations between FFM traits and BPD characteristics in a group of clinical and non-clinical adolescents. We evaluated the correlations between the FFM personality traits, as measured by the NEO-Five Factor Inventory (NE0-FFI) and BPD characteristics as measured by the DIB-R in a sample of adolescents (*N*=162). Consistent with previous research, BPD dimensions were highly associated with high Neuroticism, low Conscientiousness, low Agreeableness and to a somewhat lesser extent with low Extraversion. Specificity of associations between FFM traits and DIB-R section scores was limited, in part because of strong inter-correlations among DIB-R scores. These results imply that evidence about trait-BPD associations in adult samples generalizes well to adolescents. Clinical implications of these findings are discussed.

In clinical practice, Borderline Personality Disorder (BPD) has been understood as a psychiatric disorder category characterized by a pervasive and enduring pattern of instability and impulsivity that causes distress or impairment, as indicated by at least five of nine criteria in the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (American Psychiatric Association (APA), 2013). Personality psychologists have demonstrated that this pattern of behavior is associated with a particular pattern of Five Factor Model traits (FFM: Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A) and Conscientiousness (C)). These findings provide some grounds for synthesizing clinical and quantitative approaches to personality pathology. Yet important questions remain; we aim to address two of them in this study. First, do these associations generalize to adolescents, where personality has been observed to be relatively more plastic and the diagnosis of personality disorder has been questioned? We examine associations between BPD and FFM traits in a mixed clinical/ community adolescent sample to provide an initial answer to this question. Second, do trait and diagnostic models describe the well-known heterogeneity within the broad BPD construct in similar ways? We evaluate links between traits and four specific dimensions of BPD.

Associations between Five-Factor Model and borderline personality disorder

Meta-analytic work shows that BPD is positively associated with N and negatively associated with A and C in adult samples (Samuel & Widiger, 2008; Saulsman & Page, 2004). Longitudinal studies suggest, moreover, that changes in FFM traits can account for changes in BPD symptoms over the course of 16 years (Wright et al., 2015) and BPD has been shown to share all of its genetic variation with FFM traits (Distel et al., 2009). Such findings have led to the general conclusion that 'Even when clouds caused by sampling and measurement variability are removed from the picture, the correspondence between PD configurations and dimensions of normal personality are very strong' (O'Connor, 2004, p. 340)

This empirical conclusion influenced the Alternative Model of Personality Disorders (AMPD; APA, 2013) as well as the 11th edition of the International Classification of Diseases (ICD-11; World Health Organization (WHO), 2018), in which personality disorders are re-conceptualized using trait dimensions in combination with functioning indices. At the same time, both of these models have retained a separate BPD category or specifier, which highlights the perceived value and potential added information of the BPD construct over and above personality dimensions. Thus, the clinical and research communities continue to struggle with how to integrate quantitative and clinical approaches to describing borderline behavior and problems. One

important area of debate in both trait psychology and clinical diagnosis has involved questions about whether traits and BPD relate similarly in adolescents and adults.

There are at least four reasons to hypothesize that FFM traits and BPD would be related in the same way in adolescents as they are in adults. First, research in community adolescent samples tends to find similar associations between BPD and high N, low A, and low C (De Clercq & De Fruyt, 2003; De Clercq et al., 2004; Decuyper et al., 2009). The associations between high N and low A were corroborated in a clinical sample (Jennings et al., 2012), and the maladaptive extremes of this FFM-trait profile were related to BPD in mixed community/clinical samples (De Clercq et al., 2014; Trull, 2001). Second, there is considerable continuity in the structure of FFM traits from adolescence to adulthood (Caspi, 2000; De Clercq & De Fruyt, 2003; McCrae & Costa, 2003; Tackett et al., 2008; Tackett et al., 2012; Widiger et al., 2009). This indicates that the same set of personality variables are useful for describing individual differences in adolescents and adults. Thus, these variables are also likely to relate in similar ways to certain forms of suffering and dysfunction, such as those characterized under the rubric of BPD. Third, the rank-order stability of FFM traits is substantial during the transition from adolescence to adulthood (Bornovalova et al., 2009; Hopwood et al., 2013; Pullmann et al., 2006; Roberts & DelVecchio, 2000). This suggests that those individuals who have FFM profiles that suggest risk for BPD symptoms in adolescence will continue to have at-risk profiles as adults. Fourth, despite some controversies surrounding the BPD diagnosis in adolescents, there is increasingly robust evidence for similar levels of reliability and validity of BPD diagnoses in adolescents and in adults (Kaess et al., 2014). Effective early-detection and early-intervention strategies have been identified for youths who struggle with BPD, further suggesting the value of early diagnosis (Chanen et al., 2008; Miller et al., 2008; Sharp et al., 2012).

Borderline personality disorder as a heterogeneous construct

A significant challenge for conceptualizing BPD has to do with being a broad and it heterogeneous cluster of problems (Bondurant et al., 2004; Paris, 2007; Tackett et al., 2014). This heterogeneity can be understood both in terms of different configurations of FFM traits (Wright et al., 2010; Wright et al., 2015) or different constellations of BPD symptoms (Clarkin et al., 1983; Kaess et al., 2014; Sanislow et al., 2002). For instance, FFM trait domains could be used to distinguish an adolescent with BPD who is anxious, overly compliant, and impulsive (i.e., high in N and A and low in C) from a one who is angry, mistrustful, and explosive (i.e., high in N and low in A and C) in a way that would be useful for treatment planning. Conversely, particular BPD symptoms can be used to distinguish an adolescent with BPD whose primary problems are in the area of abandonment concerns and identity problems from one whose

problems are more related to anger and impulsive behavior. The Revised Diagnostic Interview for Borderlines (DIB-R; Zanarini et al., 1989) is one of the few measures of BPD that explicitly assesses clinically-relevant clusters of symptoms (Chabrol et al., 2002; Goodman et al., 2022). It specifically distinguishes between affective (e.g., depression, anxiety), cognitive (e.g., paranoia, unusual perceptions), impulsive (e.g., substance use, promiscuity), and interpersonal (e.g., dependency, demandingness) symptoms.

Associations between FFM dimensions and the four symptom sections of the DIB-R have not been examined empirically. This raises the question whether these two models would provide similar information about heterogeneity among adolescents diagnosed with BPD. A close correspondence between FFM traits and DIB-R sections would suggest that these models provide similar kinds of information about both the overall diagnosis but also the specific constellation of presenting problems. The content of the two models suggests that this is possible. For instance, there would appear to be a correspondence between FFM N and DIB-R affective symptoms, low FFM C and DIB-R impulsive symptoms, and low FFM A and DIB-R interpersonal symptoms (Tackett & Kushner, 2014). Conversely, a lack of correspondence might suggest that these two models provide different kinds of information, and thus would be mutually informative for describing heterogeneity among individuals diagnosed with BPD.

This study

The aim of the current study was to examine the associations of BPD dimensions with FFM traits in mixed clinical/community sample of adolescents. Our first hypothesis was that BPD would be positively associated with N and negatively associated with A, and C, consistent with evidence from adult samples. Our second and more exploratory hypothesis was that there would be some level of correspondence between specific FFM traits and specific DIB-R sections, such that higher N would be linked to affective symptoms, lower A to interpersonal symptoms, and lower C to impulsive symptoms.

METHOD

Participants

Participants were 162 adolescents (90.1% female; M_{age} = 15.31, SD = 1.37, range 13-17, 68.5% white), 102 of whom were sampled from a psychiatric setting and 60 of whom were healthy comparison subjects.

Measures

The Revised Diagnostic Interview for Borderlines (DIB-R; Zanarini et al., 1989) is a 94-item semi-structured interview that assesses affective (18 items), cognitive (27 items), impulsive (17 items), and interpersonal symptoms (32 items) of BPD within 22 subcategories. Items do not cross-load across scales or categories. The internal consistency of the four sector scores in the current study were: Affect (Cronbach's alpha =.86), Cognition (.55), Impulsivity (.80), and Interpersonal Relationships (.79). The relatively lower value for the Cognition score reflects that it is the most complex sector of the DIB-R.

The NEO Five Factor Inventory (NEO-FFI; Costa & McCrae, 1992) is a 60-item questionnaire with internal consistency in the current study as follows: Neuroticism (.90), Extraversion (.80), Openness to Experience (.71), Agreeableness (.79), and Conscientiousness (88).

Procedure

The group of clinical adolescents were recruited from four units at McLean Hospital and one unit at the Ichan School of Medicine at Mount Sinai between the dates of August 2007 and September 2012. Adolescents without a history of any psychiatric disorder were concurrently recruited using online advertisements. No participants dropped out of the study as data-collection was cross-sectional. All participants had an IQ of 71 or higher, were fluent in English and had never met criteria for schizophrenia, schizoaffective disorder, bipolar I disorder, or been diagnosed with a serious organic condition that could cause psychiatric symptoms (e.g., multiple sclerosis, systemic lupus erythematosus). Parents provided consent and adolescents provided assent. Bachelor and master-level research assistants conducted the interviews. They were trained by Dr. Zanarini, who is the developer of the DIB-R. Following the administration of the measures, basic global assessment of functioning (GAF) scores were assigned to all participants by lab members including the interviewer who administered the DIB-R and the site PI. GAF scores ranged from 24-91 (M = 49.32, SD = 19.41) for the total sample.

Statistical analyses

We first calculated inter-correlations among the FFM and DIB-R scales. To test hypothesis 1, we correlated NEO-FFI traits with DIB-R section scores. To test hypothesis 2, we used a dependent correlations z test to examine differences between DIB-R section scores and NEO-FFI trait scores, one trait at a time. SPSS Statistics 25 was used for all analyses and p-values of .01 were used to determine significance.

RESULTS

Inter-correlations among FFM scales ranged from -.023 to -.475** and among DIB-R scales they ranged from .764** to .953**. Correlations between FFM traits and BPD section scores are shown in Table 1. All DIB-R domains showed statistically significant correlations with all FFM-traits. However, consistent with our predictions and previous research, correlations were strongest for high N, low A, and low C. Moderate correlations were also observed for low E, and small correlations were observed for high O.

We used tests of dependent correlations with a Type I error rate of .01 to examine our second hypothesis. The correlations between N and the DIB-R affect and interpersonal symptoms were significantly stronger than the correlation between N and the impulsive symptoms. There was no significant difference in strengths of the correlations between E, O, A and C and the four DIB-R sectors of psychopathology. These results are mostly inconsistent with our expectations and do not suggest a particularly strong similarity between the FFM and DIB-R at the level of underlying components. However, their interpretation is also conditioned on the strong intercorrelations among DIB-R sections scores, which makes discriminant patterns of external correlation unlikely.

Table 1. *Correlations between FFM traits and DIB-R dimensions*

	Affect	Cognition	Impulse Action	Interpersonal Relations	Total Score
Neuroticism	.780**	.725**	.667**	.746**	.786**
Extraversion	-.397**	-.370**	-.332**	-.329**	-.379**
Openness	.255**	.221**	.193*	.215**	.237**
Agreeableness	-.439**	-.396**	-.451**	-.453**	-.472**
Conscientiousness	-.435**	-.368**	-.471**	-.408**	-.454**

* $p < .05$ ** $p < .01$

Table 2. *P-values for differences in correlations*

	A vs. C	A vs. IA	A vs. IR	C vs. IA	C vs. IR	IA vs. IR
Neuroticism	.032	<.001	.087	.050	.270	.007
Extraversion	.270	.058	.036	.216	.209	.473
Openness	.233	.077	.156	.291	.455	.319
Agreeableness	.160	.381	.349	.119	.121	.481
Conscientiousness	.062	.181	.231	.011	.210	.070

A = Affect, C = Cognition, IA = Impulse Action, IR = Interpersonal Relations

DISCUSSION

The goals of this study were to test a) whether associations between BPD and FFM traits identified in mixed adult samples and non-clinical adolescent samples extend to a mixed adolescent sample and b) whether there are specific associations between FFM traits and BPD symptom clusters. In general, results confirmed the first hypothesis but not our second.

Our results strongly support the connection between BPD and basic traits, and in particular an FFM profile of high N and low A and C and extend this link to a clinical sample of adolescents. These associations appear to be robust, indicating that FFM traits can be used to depict, identify, and predict BPD across the lifespan. Indeed, correlations were very strong in this study (e.g., stronger than meta-analytic correlations from adult samples; Samuel & Widiger, 2008; Saulsman & Page, 2004), particularly given that the FFM measure was a self-report questionnaire whereas the BPD measure was a semi-structured interview.

The association between BPD symptoms and N was especially strong. This finding is consistent with several theories that posit constructs such as neuroticism (Widiger, 2009), hyperbolic temperament (Hopwood et al., 2010; Zanarini & Frankenburg, 2007), or emotion dysregulation (Linehan, 1993) as the core underlying feature of BPD. It suggests that the most prominent personality feature of the disorder among adolescents has to do with affective dysregulation. The association between low E and BPD, although previously observed (Samuel & Widiger, 2008; Wright et al., 2015) has not been consistently identified in the literature, and is worth further consideration.

It is worth noting that a personality trait profile involving high N, low A, and low C may not be specific to BPD (Wright et al., 2010). Indeed, a similar profile has been identified for other personality disorders as well (Morey et al., 2002; Samuel & Widiger, 2008; Sharp et al., 2015). This profile has also been linked to a "p" factor that may represent a general disposition for maladaptive personality and mental health problems, as opposed to a specific psychiatric disorder (Caspi et al., 2014; Hopwood et al., 2010). Future research should explore the link between normal range personality traits, BPD symptoms, and a general dimension of psychopathology in both adolescent and adult samples.

In contrast, results did not support a particularly specific correspondence between FFM traits and DIB-R symptom sections among adolescents. A similar result was obtained when examining DIB-R temperamental and acute symptoms in an adult sample (Hopwood et al., 2010) although associations between DIB-R sections and

FFM domains have not been examined in adults. The most likely explanation for this finding was the strong inter-correlations among DIB-R scores, which make it difficult to find discriminant correlations between those scores and FFM traits. Specific links might have also been more likely if we had used specific maladaptive trait facets rather than broad, normal range traits.

Future studies should focus on addressing some of the limitations of this study and replicating the results. The use of cross-sectional data limited our ability to examine developmental processes that are important to consider for understanding the use of traits to depict BPD in young people. Our relatively small sample constrained our ability to examine differences between clinical and non-clinical participants and to investigate connections between FFM traits and BPD using more sophisticated (e.g., item-level) covariance models. Furthermore, high inter-correlations among DIB-R scales would have complicated these detailed analyses. It is possible that organizing DIB-R symptoms differently would give different results, as there is evidence of differential stability among symptoms. FFM traits, moreover, correlate differentially with more and less stable BPD symptoms (Hopwood et al., 2010). The use of a personality model that captures variation at the level of lower-level facets could provide a more nuanced picture of the association between the FFM and BPD with potentially a different correlation pattern across scales (Bondurant et al., 2004; Samuel & Widiger, 2008; Tackett & Kushner, 2014). Finally, the absence of criterion variables (e.g., psychosocial functioning or treatment response) limited our ability to compare these two schemes in terms of clinical utility.

In conclusion, the current results suggest a strong general correspondence between an FFM trait profile involving high N, low A, and low C and BPD symptoms in a mixed adolescent sample, but weak correspondence between specific FFM traits and specific BPD symptom clusters. These results support the conclusion that associations between trait dimensions and BPD commonly observed in adults extend to adolescents.

REFERENCES

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

Bondurant, H., Greenfield, B., & Tse, S. M. (2004). Construct validity of the adolescent borderline personality disorder: a review. *The Canadian child and adolescent psychiatry review*, *13*(3), 53–57.

Bornovalova, M. A., Hicks, B. M., Iacono, W. G., & McGue, M. (2009). Stability, change, and heritability of borderline personality disorder traits from adolescence to adulthood: A longitudinal twin study. *Development and Psychopathology*, *21*(4), 1335–1353. https://doi.org/10.1017/S0954579409990186

Caspi, A. (2000). The child is father of the man: Personality continuities from childhood to adulthood. *Journal of Personality and Social Psychology*, *78*(1), 158–172. https://doi.org/10.1037/0022-3514.78.1.158

Caspi, A., Houts, R. M., Belsky, D. W., Goldman-Mellor, S. J., Harrington, H., Israel, S., Meier, M. H., Ramrakha, S., Shalev, I., Poulton, R., & Moffitt, T. E. (2014). The p Factor: One General Psychopathology Factor in the Structure of Psychiatric Disorders? *Clinical Psychological Science*, *2*(2), 119–137. https://doi.org/10.1177/2167702613497473

Chabrol, H., Montovany, A., Callahan, S., Chouicha, K., & Ducongé, E. (2002). Factor Analyses of The DIB-R in Adolescents. *Journal of Personality Disorders*, *16*(4), 374–384. https://doi.org/10.1521/pedi.16.4.374.24123

Chanen, A., Jovev, M., McCutcheon, L., Jackson, H., & McGorry, P. (2008). Borderline Personality Disorder in Young People and the Prospects for Prevention and Early Intervention. *Current Psychiatry Reviews*, *4*(1), 48–57. https://doi.org/10.2174/157340008783743820

Clarkin, J. F., Widiger, T. A., Frances, A., Hurt, S. W., & Gilmore, M. (1983). Prototypic typology and the Borderline Personality Disorder. *Journal of Abnormal Psychology*, *92*(3), 263–275. https://doi.org/10.1037/0021-843X.92.3.263

Costa, P. T., & McCrae, R. R. (1992). Normal personality assessment in clinical practice: The NEO Personality Inventory. *Psychological Assessment*, *4*(1), 5–13. https://doi.org/10.1037/1040-3590.4.1.5

De Clercq, B., & De Fruyt, F. (2003). Personality Disorder Symptoms in Adolescence: A Five-Factor Model Perspective. *Journal of Personality Disorders*, *17*(4), 269–292. https://doi.org/10.1521/pedi.17.4.269.23972

De Clercq, B., De Fruyt, F., & Van Leeuwen, K. (2004). A "Little Five" Lexically Based Perspective on Personality Disorder Symptoms in Adolescence. *Journal of Personality Disorders*, *18*(5), 479–499. https://doi.org/10.1521/pedi.18.5.479.51324

De Clercq, B., Decuyper, M., & De Caluwé, E. (2014). Developmental Manifestations of Borderline Personality Pathology from an Age-Specific Dimensional Personality Disorder Trait Framework. In C. Sharp & J. L. Tackett (Eds.), *Handbook of Borderline Personality Disorder in Children and Adolescents* (pp. 81–94). Springer New York. https://doi.org/10.1007/978-1-4939-0591-1_7

Decuyper, M., De Clercq, B., De Bolle, M., & De Fruyt, F. (2009). Validation of FFM PD Counts for Screening Personality Pathology and Psychopathy in Adolescence. *Journal of Personality Disorders*, *23*(6), 587–605. https://doi.org/10.1521/pedi.2009.23.6.587

Distel, M. A., Trull, T. J., Willemsen, G., Vink, J. M., Derom, C. A., Lynskey, M., Martin, N. G., & Boomsma, D. I. (2009). The Five-Factor Model of Personality and Borderline Personality Disorder: A Genetic Analysis of Comorbidity. *Biological Psychiatry*, *66*(12), 1131–1138. https://doi.org/10.1016/j.biopsych.2009.07.017

Goodman, M., Hazlett, E. A., Avedon, J. B., Siever, D. R., Chu, K.-W., & New, A. S. (2011). Anterior cingulate volume reduction in adolescents with borderline personality disorder and co-morbid

major depression. *Journal of Psychiatric Research*, *45*(6), 803–807. https://doi.org/10.1016/j.jpsychires.2010.11.011

Hopwood, C. J., Donnellan, M. B., & Zanarini, M. C. (2010). Temperamental and acute symptoms of borderline personality disorder: Associations with normal personality traits and dynamic relations over time. *Psychological Medicine*, *40*(11), 1871–1878. https://doi.org/10.1017/S0033291709992108

Hopwood, C. J., Morey, L. C., Donnellan, M. B., Samuel, D. B., Grilo, C. M., McGlashan, T. H., Shea, M. T., Zanarini, M. C., Gunderson, J. G., & Skodol, A. E. (2013). Ten-Year Rank-Order Stability of Personality Traits and Disorders in a Clinical Sample: Stability of Traits and Disorders. *Journal of Personality*, *81*(3), 335–344. https://doi.org/10.1111/j.1467-6494.2012.00801.x

Jennings, T. C., Hulbert, C. A., Jackson, H. J., & Chanen, A. M. (2012). Social Perspective Coordination in Youth with Borderline Personality Pathology. *Journal of Personality Disorders*, *26*(1), 126–140. https://doi.org/10.1521/pedi.2012.26.1.126

Kaess, M., Brunner, R., & Chanen, A. (2014). Borderline Personality Disorder in Adolescence. *Pediatrics*, *134*(4), 782–793. https://doi.org/10.1542/peds.2013-3677

Linehan, M. M. (1993). *Skills training manual for treating borderline personality disorder.* Guilford Press.

McCrae, R. R., Costa, P. T., & Jr. (2003). *Personality in Adulthood: A Five-Factor Theory Perspective*. Guilford Press. https://doi.org/10.4324/9780203428412

Miller, A. L., Muehlenkamp, J. J., & Jacobson, C. M. (2008). Fact or fiction: Diagnosing borderline personality disorder in adolescents. *Clinical Psychology Review*, *28*(6), 969–981. https://doi.org/10.1016/j.cpr.2008.02.004

Morey, L. C., Gunderson, J. G., Quigley, B. D., Shea, M. T., Skodol, A. E., McGlashan, T. H., Stout, R. L., & Zanarini, M. C. (2002). The Representation of Borderline, Avoidant, Obsessive-Compulsive, and Schizotypal Personality Disorders by the Five-Factor Model. *Journal of Personality Disorders*, *16*(3), 215–234. https://doi.org/10.1521/pedi.16.3.215.22541

O'Connor, B. P. (2005). A search for consensus on the dimensional structure of personality disorders. *Journal of Clinical Psychology*, *61*(3), 323–345. https://doi.org/10.1002/jclp.20017

Paris, J. (2007). The Nature of Borderline Personality Disorder: Multiple Dimensions, Multiple Symptoms, but One Category. *Journal of Personality Disorders*, *21*(5), 457–473. https://doi.org/10.1521/pedi.2007.21.5.457

Pullmann, H., Raudsepp, L., & Allik, J. (2006). Stability and change in adolescents' personality: A longitudinal study. *European Journal of Personality*, *20*(6), 447–459. https://doi.org/10.1002/per.611

Roberts, B. W., & DelVecchio, W. F. (2000). The rank-order consistency of personality traits from childhood to old age: A quantitative review of longitudinal studies. *Psychological Bulletin*, *126*(1), 3–25. https://doi.org/10.1037/0033-2909.126.1.3

Samuel, D., & Widiger, T. (2008). A meta-analytic review of the relationships between the five-factor model and DSM-IV-TR personality disorders: A facet level analysis☆. *Clinical Psychology Review*, *28*(8), 1326–1342. https://doi.org/10.1016/j.cpr.2008.07.002

Sanislow, C. A., Grilo, C. M., Morey, L. C., Bender, D. S., Skodol, A. E., Gunderson, J. G., Shea, M. T., Stout, R. L., Zanarini, M. C., & McGlashan, T. H. (2002). Confirmatory Factor Analysis of DSM-IV Criteria for Borderline Personality Disorder: Findings From the Collaborative Longitudinal Personality Disorders Study. *American Journal of Psychiatry*, *159*(2), 284–290. https://doi.org/10.1176/appi.ajp.159.2.284

Saulsman, L. M., & Page, A. C. (2004). The five-factor model and personality disorder empirical literature: A meta-analytic review. *Clinical Psychology Review*, *23*(8), 1055–1085. https://doi.org/10.1016/j.cpr.2002.09.001

Sharp, C., Ha, C., Michonski, J., Venta, A., & Carbone, C. (2012). Borderline personality disorder in adolescents: Evidence in support of the Childhood Interview for DSM-IV Borderline Personality Disorder in a sample of adolescent inpatients. *Comprehensive Psychiatry*, *53*(6), 765–774. https://doi.org/10.1016/j.comppsych.2011.12.003

Sharp, C., Wright, A. G. C., Fowler, J. C., Frueh, B. C., Allen, J. G., Oldham, J., & Clark, L. A. (2015). The structure of personality pathology: Both general ('g') and specific ('s') factors? *Journal of Abnormal Psychology*, *124*(2), 387–398. https://doi.org/10.1037/abn0000033

Tackett, J. L., Herzhoff, K., Reardon, K. W., De Clercq, B., & Sharp, C. (2014). The externalizing spectrum in youth: Incorporating personality pathology. *Journal of Adolescence*, *37*(5), 659–668. https://doi.org/10.1016/j.adolescence.2013.10.009

Tackett, J. L., Krueger, R. F., Iacono, W. G., & McGue, M. (2008). Personality in middle childhood: A hierarchical structure and longitudinal connections with personality in late adolescence. *Journal of Research in Personality*, *42*(6), 1456–1462. https://doi.org/10.1016/j.jrp.2008.06.005

Tackett, J. L., & Kushner, S. C. (2014). Conceptualizing Youth Borderline Personality Disorder Within a Normative Personality Framework. In C. Sharp & J. L. Tackett (Eds.), *Handbook of Borderline Personality Disorder in Children and Adolescents* (pp. 95–110). Springer New York. https://doi.org/10.1007/978-1-4939-0591-1_8

Tackett, J. L., Slobodskaya, H. R., Mar, R. A., Deal, J., Halverson, C. F., Baker, S. R., Pavlopoulos, V., & Besevegis, E. (2012). The Hierarchical Structure of Childhood Personality in Five Countries: Continuity From Early Childhood to Early Adolescence: Child Personality Structure. *Journal of Personality*, *80*(4), 847–879. https://doi.org/10.1111/j.1467-6494.2011.00748.x

Trull, T. J. (2001). Structural relations between borderline personality disorder features and putative etiological correlates. *Journal of Abnormal Psychology*, *110*(3), 471–481. https://doi.org/10.1037/0021-843X.110.3.471

World Health Organization. (2019). *International statistical classification of diseases and related health problems* (11th ed.). https://icd.who.int

Widiger, T. A. (2009). Neuroticism. In M. R. Leary & R. H. Hoyle (Eds.), *Handbook of individual differences in social behavior* (pp. 129–146). The Guilford Press.

Widiger, T. A., De Clercq, B., & De Fruyt, F. (2009). Childhood antecedents of personality disorder: An alternative perspective. *Development and Psychopathology*, *21*(3), 771–791. https://doi.org/10.1017/S095457940900042X

Wright, A. G. C., Hopwood, C. J., & Zanarini, M. C. (2015). Associations between changes in normal personality traits and borderline personality disorder symptoms over 16 years. *Personality Disorders: Theory, Research, and Treatment*, *6*(1), 1–11. https://doi.org/10.1037/per0000092

Wright, A. G. C., Pincus, A. L., & Lenzenweger, M. F. (2010). Modeling Stability and Change in Borderline Personality Disorder Symptoms Using the Revised Interpersonal Adjective Scales–Big Five (IASR–B5). *Journal of Personality Assessment*, *92*(6), 501–513. https://doi.org/10.1080/00223891.2010.513288

Zanarini, M. C., & Frankenburg, F. R. (2007). The Essential Nature of Borderline Psychopathology. *Journal of Personality Disorders*, *21*(5), 518–535. https://doi.org/10.1521/pedi.2007.21.5.518

Zanarini, M. C., Gunderson, J. G., Frankenburg, F. R., & Chauncey, D. L. (1989). The Revised Diagnostic Interview for Borderlines: Discriminating BPD from other Axis II Disorders. *Journal of Personality Disorders*, *3*(1), 10–18. https://doi.org/10.1521/pedi.1989.3.1.10

SUPPLEMENTARY MATERIAL

Table 1. *Intercorrelations NEO-FFI*

	N	E	O	A	C
Neuroticism	1	-.475**	.334**	-.397**	-.435**
Extraversion		1	-.099	.214**	.354**
Openness			1	.051	-.023
Agreeableness				1	.407**
Conscientiousness					1

Table 2. *Intercorrelations DIB-R*

	Affect	Cognition	Impulse Action	Interp. Relations	Total
Affect	1	.816**	.841**	.868**	.953**
Cognition		1	.785**	.764**	.871**
Impulse Action			1	.817**	.922**
Interp. Relations				1	.953**
Total					1

Table 3. *Correlations between FFM and DIB-R domains for the clinical group (N=102)*

	Affect	Cognition	Impulse Action	Interpersonal Relations	Total Score
Neuroticism	347**	.275**	-.098	.267**	.327**
Extraversion	.021	-.034	.168	.094	.126
Openness	.247*	.098	.020	.040	.143
Agreeableness	.096	-.002	-.040	-.122	-.064
Conscientiousness	.060	-.012	-.139	-.006	-.042

Table 4. *Correlations between FFM and DIB-R domains for the non-clinical group (N=60)*

	Affect	Cognition	Impulse Action	Interpersonal Relations	Total Score
Neuroticism	.364**	.376**	.304*	.309*	.434**
Extraversion	-.140	-.126	-.141	.091	-.087
Openness	.077	.103	.054	.199	.147
Agreeableness	-.298*	-.148	-.293*	-.085	-.264*
Conscientiousness	-.166	.088	-.151	.050	-.065

Publication:

Koster, N., Laceulle, O., Van der Heijden, P., De Clercq, B., & Van Aken, M. (2018). Trajectories of change in symptom distress in a clinical group of late adolescents: The role of maladaptive personality traits and relations with parents. *Personality and Mental Health, 12(3),* 192-202. https://doi.org/10.1002/pmh.1416

Contribution:

NK, PH and MA conceptualized the study, PH and MA were responsible for data-collection. NK analyzed the data and wrote the first draft of the manuscript. All authors provided feedback on the manuscript.

Chapter 4

Trajectories of change in symptom distress **in a clinical group of late adolescents**: The role of maladaptive personality traits and relations with parents

ABSTRACT

In this study, it was analyzed whether trajectories of change in symptom distress could be identified in a clinical group of late adolescents with personality pathology. Furthermore, it was examined whether maladaptive personality traits and relations with parents were predictive of following one of these trajectories. Three latent classes emerged from growth mixture modelling with a symptom inventory (n = 911): a Stable High, a Strong Decreasing and a Moderate Decreasing trajectory. Subsequently, by using multinomial logistic regression analyses in a subsample of late-adolescents (n = 127), it was revealed that high levels of Negative Affectivity and Detachment were predictive of following the Strong Decreasing, and high levels of Detachment were predictive of following the Stable High trajectory. Support from or Negative Interactions with parents were not predictive of any of the trajectories. The current results contribute to the notion of individual trajectories of change in symptom distress and provide suggestions for screening patients on personality traits to gain insight in the course of this change.

Adolescents differ with regard to change of symptom distress while receiving psychological care, such that divergent change trajectories may be distinguished (Galatzer-Levi et al., 2013; Maalouf, et. al., 2012; Vermote et. al., 2009; Wickrama, Wickrama & Lott, 2009). Little is known, however, with regard to which specific factors contribute to individual differences in change in symptom distress. Several factors have been proposed, including pre-treatment severity of the disorder (Bryan et. al., 2012), the therapeutic relationship (Lambert & Barley, 2001) and the type of psychological care received (Leichsenring & Leibing, 2003). However, as there is little evidence for superiority of one intervention over the other (Duggan, Huband, Smailagic, Ferriter & Adams, 2007; Roberts, Luo, Briley, Chow, Su & Hill, 2017), both dispositional tendencies of the patient as well as contextual elements may be of additional interest for a more deeper understanding of divergent change trajectories in youth. Especially because severity of psychopathology is strongly associated with specific personality traits, as well as with environmental adversities, a closer look at the specific role of maladaptive personality traits (Lieb, Zanarini, Schmahl, Linehan & Bohus, 2004; Meyer, Pilkonis, Proietti, Heap & Egan, 2001; Newton-Howes et al., 2014) and the individual's social network (Hair, Moore, Garret, Ling & Cleveland, 2008; Helsen, Vollebergh & Meeus, 2000; Wickrama, et. al., 2009) may increase our knowledge on why some adolescents recover more than others.

Associations between maladaptive personality traits and symptom distress

It is increasingly acknowledged that personality pathology is best described using a dimensional approach (Widiger, 2011). Although research using dimensional measures of personality pathology and relating this to change in symptom distress is limited, studies including Five Factor Model-related (FFM) trait measures showed that the combination of high Neuroticism, low Agreeableness, low Conscientiousness and low Extraversion is associated with higher levels of symptom distress (Mallouf, Thornsteinsson & Schutte, 2005). Additionally, it has been shown that personality traits, especially emotional stability, are important predictors of treatment effect (Roberts, et. al., 2017). Moreover, these findings have been confirmed from a maladaptive trait perspective, indicating that especially high levels of Negative Affectivity are related to experiencing more distress (Campbell-Sills, Cohan & Stein, 2007; Rantanen, Pulkinnen & Kinnunnen, 2005).

Associations between parental relationship quality and symptom distress

In addition to (maladaptive) personality, social relations may be related to individual differences in symptom change. Specifically, experiencing support from parents may be an important determinant of decreases in symptom distress, for example by promoting compliance with treatment (DiMatteo, 2004; Galambos, Barker & Almeida,

2003), while conflict with parents may contribute to increased levels of symptom distress. However, evidence for such a link is limited and even less is known with regard to unique and potential complementary relations with mothers vs. fathers (Bögels & Phares, 2008). When looking at studies on more general psychological symptoms, some studies found a comparable impact of maternal versus paternal relations (Brumariu & Kerns, 2010; Sheeber, Davis, Leve, Hops & Tildesly, 2007), whereas others found that support from mothers was most effective (Markiewicz, Lawford, Doyle & Haggart, 2006; Meadows, Brown & Elder, 2006). Alternatively, support from fathers has been suggested to be more important, as mothers may have the tendency to co-ruminate with rather than support their child (Calmes & Roberts, 2008). From a dynamic perspective, the effects of parental relationship quality may also interact with the effects of maladaptive personality traits. Previous research has suggested that patients with high levels of maladaptive traits who are involved in positive social interactions show an improved adjustment compared to patients who do not experience positive social interactions (Paris, 2014). Therefore, a perspective considering both the unique and interactional effects of maladaptive personality and social relationship quality is needed to increase our understanding of change in distress.

Current study

The first goal of this study is to examine trajectories of change in symptom distress in a clinical group of late adolescents with personality pathology. In line with previous findings on trajectories of symptom change in adults and adolescents (Galatzer-Levi et al., 2013; Maalouf, et. al., 2012; Vermote et. al., 2009; Wickrama, et. al., 2009), it is expected that different trajectories can be distinguished, with at least one that shows a decrease and one that shows no or very little decrease over time. In addition, preliminary evidence has outlined the role of individual (i.e., maladaptive traits) and contextual (i.e., social relations) factors, as well as their combined effects, on changes in symptom distress. Therefore, the second goal of this study is to examine whether and how maladaptive personality traits and relations with parents are predictive of trajectories of change in symptom distress. It is expected that patients with higher levels of maladaptive traits, and especially higher levels of Negative Affectivity show high levels of symptom distress. Specifically, it is expected that higher levels of Negative Affectivity are related to a smaller decrease in symptom distress. Given the inconsistent results on social relations and psychological symptom distress, these associations will be explored.

METHODS

Participants

For its first goal the current study relies on a sample of 911 late-adolescent patients of the mental health institute Reinier van Arkel, who provided repeated measures of symptom distress (M_{age} = 20.2, *SD* = 2.4; 33 % men). For its second goal the current study relied on a subsample of patients who participated in a previous study and for whom maladaptive trait reports as well as parental relationship quality reports were additionally available (N=127, M_{age} = 20.9 SD = 2.4; 27 % men). This enabled us to explore how trajectories of change in symptom distress were related to dispositional and contextual factors. For a detailed sample description of this subsample see Hessels et al. (2016). Patients in this subsample received different kinds of psychological care, with 68 (54 %) receiving some form of psychotherapy, and 50 (39 %) receiving case-management, resulting from multidisciplinary guidelines on clinical decision making (Trimbos Instituut, n.d). For 9 patients (7%) no information regarding type of psychological care was available.

Procedure

The collection of routine outcome monitoring (ROM) data is a frequently used method in clinical practice in which a patient's treatment outcome, including symptom distress levels, is assessed at regular intervals (Noorden, Giltay, van der Wee & Zitman, 2014). For our study-sample (*n* = 911) these intervals were on average six months. With regard to the subsample, in the period from September 2012 to October 2013 all new patients (*n* = 127) were invited to participate in an online study on personality pathology and social relations. The time between the base rate ROM measurement and the online survey was on average 2 months (SD = 6.2)

Measures

Symptom distress: All patients completed the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) as part of the ROM at four consecutive time points. The BSI is a 53-item self-report inventory in which patients rate their experience of symptom distress in the past week on a 4-point scale. The mean of the total items can be computed as the Global Severity Index (GSI) of symptom distress. Cronbach's alpha for the 51 item GSI score ranged from .96 to .97 across the four waves.

Maladaptive personality traits: The subsample of 127 patients completed the Personality Inventory for DSM-5 (PID-5; De Fruyt et al., 2013; Krueger et al., 2012), which measures an individual's level of maladaptive personality traits. The PID-5 is a 220-item questionnaire and answers are given on a 4-point response scale. Five broad scales are distinguished, which are constructed from the three most defining facets: Negative

Affectivity (23 items), Detachment (24 items), Antagonism (21 items), Disinhibition (22 items), and Psychoticism (33 items). Cronbach's alpha ranged from .88 to .94 across the five scales.

Quality of relationships with mother and father: Support (five items) and conflict (six items) in relations with parents was assessed in the subsample of 127 patients, relying on the Dutch translation of the Network of Relationships Inventory - Behavioral System Version (NRI-BSV; Van Aken & Hessels, 2012, Furman & Buhrmester, 2009). Answers are given on a 5-point response scale. Cronbach's alpha ranged from .93 to .97 across scales and informants (fathers and mothers).

Data analytic strategy

First, data of the overall sample (n = 911) were used to determine the trajectories of change in symptom distress. Second, data of the subsample (n = 127) were used to examine the predictive value of maladaptive personality traits and parental relationship quality for the likelihood to display each of the defined change trajectories. Missing data in the full sample were handled by using robust maximum likelihood estimation in Mplus and in the subsample with Relative Mean Substitution (Raaijmakers, 1999) in SPSS.

First, a latent growth curve model was analyzed to determine whether change in the overall sample was best represented by a linear or a quadratic slope. Then, it was examined whether groups with different growth trajectories could be identified based upon the longitudinal trends, by assigning participants to different latent classes. Because individuals within groups might not follow strict homogeneous trajectories of change, a model allowing individual variation in both the intercept and linear slope within the latent classes was tested (Muthén, 2006). The final number of classes was determined by analyzing which model best fit the data, based on a significant BLRT test, the lowest BIC value, the difference in AIC, a significant LMR-LRT, the highest posterior probabilities and logical reasoning (Jung & Wickrama, 2008, Nylund, Asparouhov, Muthén, 2007). Second, patterns of change in symptom distress were analyzed using growth mixture modeling (GMM) and class membership to the differential growth trajectories was saved. Third, descriptive statistics and bivariate correlations between the maladaptive personality traits and relations with parents were computed for the subsample in SPSS. Fourth, maladaptive traits and relations with parents were entered as predictors of class membership of the trajectories in multinomial logistic regression analyses, which controlled for the effect of treatment type and gender.

RESULTS

Trajectories of change in symptom distress

The descriptive statistics of the overall sample (n = 911) are presented in Table 1. Paired-samples T-tests showed that from wave 1 to wave 2 and from wave 2 to wave 3 the mean GSI-scores declined significantly $t(M_{T1} = 1.27, M_{T2} = 1.04, df = 614) = 9.46$, $p < .001$ and $t(M_{T2} = 1.13, M_{T3} = 1.05, df = 348) = 2.97$, $p = .003$ respectively, but not from wave 3 to wave 4 $t(M_{T3} = 1.11, M_{T4} = 1.04, df = 187) = 1.80$, $p = .067$. First, the fit of a Latent Growth Curve Model with a linear slope was analyzed. The basic linear model produced an adequate fit; $\chi^2 = 34.08$, $p < .001$, RMSEA = .080, CFI = .929. However, a model with both a linear and a quadratic slope fitted the data significantly better; Satorra-Bentler Scaled $\chi^2 = 29.79$, $p < .001$; $\chi^2 = 4.17$, $p = .041$, RMSEA = .059, CFI = .992. Analyses were continued with a model with a linear and a quadratic slope.

To identify trajectories of change in symptom distress, a Growth Mixture Model with ascending numbers of classes was fitted to the data. To increase interpretability, the quadratic slope was fixed to zero. In comparing the model fit between a 1-class (BIC: 3699.49), a 2-class [BIC: 3646.42, LMR-LRT: 77.50 (p = .015), Entropy: .67], a 3-class [BIC: 3610.66, ΔAIC = 55.03, LMR-LRT: 60.80 (p = .024), Entropy: .69] and a 4-class [BIC: 3616.09, ΔAIC = 13.84, LMR-LRT: 21.07 (p = .840), Entropy: .67] solution, a 3-class solution was selected as best fitting the data. This solution made the most valuable distinction between classes based on statistical considerations and interpretability. The mean posterior probabilities of the three trajectories are presented in Table 2 and indicate a substantial separation among the profiles.

Also presented in Table 2 are the estimated parameters of the intercept, linear and quadratic slope of the trajectories (Figure 1). For descriptive purposes we labelled the latent trajectories as Stable High (N = 138, 15%), starting with relatively high severity of symptom distress scores which do not change over time, Strong Decreasing (N = 115, 13%), starting with high severity scores which first decrease in a linear fashion which after some time is levelled out by the effect of a positive quadratic slope, and as Moderate Decreasing (N = 658, 72%), starting with moderate severity scores which moderately decrease in a linear way over time. ANOVA results showed that the three groups differed significantly from each other at the four time points [T_1: $F(2,908) = 712.48$, $p < .001$; T_2: $F(2,612) = 301.51$, $p < .001$; T_3: $F(2,346) = 195.43$, $p < .001$, T_4: $F(2,185) = 107.80$, $p < .001$; Table 3]. To increase interpretability of these trajectories in terms of the kind of patients they may represent, the percentage of patients with severe personality pathology in each trajectory was analysed (diagnosed and deferred). This was 93% of the patients in the Stable High, 87% in the Strong Decreasing and 73% in the Moderate Decreasing trajectory.

Table 1. *Means and Standard Deviations of the General Severity Scores, Maladaptive Personality Traits, and Parent Support and Conflict.*

		M	*SD*
Total sample	GSI_{T1}	1.24	.68
	GSI_{T2}	1.04	.67
	GSI_{T3}	1.05	.68
	GSI_{T4}	1.04	.69
Subsample	Negative Affectivity	2.73	.51
	Detachment	2.18	.53
	Antagonism	1.76	.48
	Disinhibition	2.30	.46
	Psychoticism	1.95	.49
	$Support_{Mother}$	3.04	.88
	$Conflict_{Mother}$	2.63	1.08
	$Support_{Father}$	2.47	.98
	$Conflict_{Father}$	2.54	1.17

Table 2. *Mean posterior probabilities and estimates for intercept linear and quadratic slopes.*

	Stable high	**Strong Decreasing**	**Moderate Decreasing**	**Intercept**	**Linear**	**Quadratic**
Stable high	.74	.14	.12	1.86 *	.16	-.05
Strong Decreasing	.15	.74	.11	2.07*	-1.25*	.31*
Moderate Decreasing	.05	.05	.90	.91*	-.14*	.02

*p<.05

Table 3. *Means and Standard Deviations of General Severity of Symptom distress for the trajectories.*

	Stable High		**Strong Decreasing**		**Moderate Decreasing**	
	N	***M(SD)***	***N***	***M(SD)***	***N***	***M(SD)***
$GSI_{T1a,b,c}$	138	1.93(.42)[d]	115	2.29(.39)[d]	658	.92(.44)[d]
$GSI_{T2a,b,c}$	98	2.10(.49)	86	1.09(.56)[e]	430	.78(.46)[e]
$GSI_{T3a,b,c}$	69	2.04(.48)	49	.95(.46)	230	.77(.47)[f]
$GSI_{T4a,b,c}$	37	2.04(.50)	26	1.08(.61)	124	.74(.43)

Note. Games Howell Post Hoc a,b,c= Δall trajectories p <.05. d= ΔT1-T2 p <.05; e= ΔT2-T3 p <.05; f= ΔT3-T4 p <.05.

Maladaptive traits and relations with parents as predictors of the trajectories of change

Analyses on the predictive role of maladaptive traits and relations with parents for the likelihood to follow a specific trajectory of change were continued with data from a subsample, including their saved class membership. An ANOVA showed that there were no differences between the severity of symptom distress of the patients in the subsample (n = 127) and the rest of the sample (n = 784) at the four time points: $T1\Delta_{total\text{-}subsample}$: F(1, 909) =.92, p =.337; $T2\Delta_{total\text{-}subsample}$: F(1, 613) =.01, p =.912; $T3\Delta_{total\text{-}subsample}$: F(1, 347) =.02, p =.882; $T4\Delta_{total\text{-}subsample}$: F(1, 186) =.03, p =.855. Table 1 presents the descriptive statistics of the maladaptive traits and parent relations. Correlations between these variables are presented in Table 4. In the subsample 22 patients were assigned to the Stable High (17%), 16 patients to the Strong Decreasing (13%) and 89 patients to the Moderate Decreasing trajectory.

Tabel 4. *Correlations between Maladaptive Personality Traits, Parent Support and Conflict*

	Detach.	Antagon.	Disinhib.	Psycho.	Support M/F	Conflict M/F
Neg. Affect.	.07	-.02	.22*	.34**	.09/-.14	.17/.08
Detachment		.03	.16	.35**	-.22*/-.22*	.11/.15
Antagonism			.31*	.39**	-.06/-.01	.01/-.09
Disinhibition				.32**	-.14/-.18	.26**/.14
Psychoticism					-.02/-.10	.16/.09
$Support_{Mother}$					1/.28**	-.35**/-.18
$Conflict_{Mother}$					-.35**/-.09	1/.37**

*p < .05, ** p < .001

First, it was found that the fit of a model with the five maladaptive traits as predictors of the three trajectories, and gender and treatment as covariates, was significantly better than the fit of a model with no predictors [χ^2 (14) =61.37, p <.001, McFadden R^2 =.32]. Second, when analysing group-differences, it appeared that higher levels of Detachment increased the chance of following the Stable High trajectory and higher levels of Negative Affectivity and Detachment increased the chance of following the Strong Decreasing trajectory, compared to the likelihood to display a Moderate Decreasing trajectory. Higher levels of Negative Affectivity also increased the chance of following the Strong Decreasing trajectory compared to the likelihood to display the Stable High trajectory.

Next, the predictive value of relations with parents for following one of the three trajectories was analyzed, by adding these factors to the model. However, they appeared to be non-significant predictors. If only relations with parents were added, without controlling for the effect of maladaptive personality traits, this effect was the same.

Parameter estimates are reported in Table 5. Concerning the effect of the covariates; using the reciprocal of the OR, it appeared that boys were 10 times more likely than girls to follow the Moderate Decreasing as opposed to the Stable High trajectory (*B* = -2.32, *SE* = 1.13, OR = .10, Wald = 4.21, *p* = .040). Moreover, boys were 14 times more likely to follow the Strong Decreasing as opposed to Stable High trajectory (*B* = -2.67, *SE* = 1.34, OR = .07, Wald = 3.93, *p* = .047). There were no gender differences between the Moderate Decreasing and Strong Decreasing group, and no differences between the types of treatment in any of the groups.

Figure 1. *Three trajectories of change in general severity scores of symptom distress.*

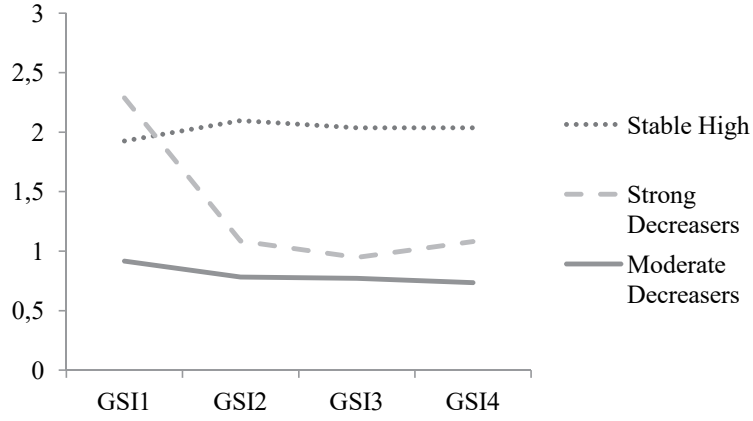


Table 5. *Parameter estimates of the Stable High, the Strong Decreasing and the Moderate Decreasing, trajectory.*

	Stable High vs. Moderate Decreasing			**Strong Decreasing vs. Moderate Decreasing**			**Stable High vs. Strong Decreasing**		
	B(SE)	***OR***	***Sig.***	***B(SE)***	***OR***	***Sig.***	***B(SE)***	***OR***	***Sig***
Intercept	-11.34 (3.47)		.001	-20.36 (6.39)		.001	9.02 (6.79)		.184
Negative Aff.	.66 (.76)	1.94	.386	4.21 (1.23)	67.63	.001**	-3.55 (1.30)	.03	.006**
Detachment	1.87 (.77)	6.47	.015*	3.06 (1.24)	21.40	.014*	-1.20 (1.34)	.30	.370
Antagonism	-.62 (.78)	.54	.426	.17 (1.07)	1.19	.872	-.80 (1.15)	.45	.489
Disinhibition	1.22 (.75)	3.38	.104	-.20 (.81)	.82	.807	1.42 (.93)	4.12	.126
Psychoticism	.89 (.78)	2.43	.253	-.31 (.90)	.73	.728	1.20 (1.03)	3.33	.242
$Support_{mother}$	.99 (.52)	2.70	.054	1.16 (.79)	3.19	.143	-.17 (.79)	.85	.832
$Conflict_{mother}$	.43 (.39)	1.53	.278	1.07 (.68)	2.91	.116	-.64 (.69)	.53	.350
$Support_{father}$	-.66 (.53)	.52	.212	-.57 (.96)	.56	.549	-.08 (.96)	.92	.931
$Conflict_{father}$	.19 (.37)	1.21	.608	-.64 (.67)	.53	.342	.83 (.70)	2.29	.238

*p <.05, **p <.001

DISCUSSION

Individual trajectories of change in symptom distress

In this study, change in symptom distress was empirically represented along a Stable High, a Strong Decreasing and a Moderate Decreasing trajectory. This is in line with previous studies which also describe one or two groups showing considerable decrease or stable levels of symptom distress (Galatzer-Levi et al., 2013; Maalouf et al., 2012; Vermote et al., 2009). The majority of the young patients followed the Moderate Decreasing trajectory, showing moderate initial severity of symptom distress that considerably improves over time. Patients that followed the Strong Decreasing trajectory started with the highest initial severity scores but showed a considerable decrease in symptom distress. This is in line with higher pre-treatment severity showing significant relations with improvement (Bryan et al., 2012). Future studies could replicate these trajectories to see whether the decrease in symptom distress in these patients lasts, or is limited to the first period of care. Vermote et al. (2009) found that the decreasing trajectory in their study showed sustained improvement after 12 months. Patients in the Stable High trajectory showed no change in symptom distress despite receiving care as usual. This seems to be a problematic group, since a decrease in symptom distress is the target of psychological care. No change may point to a negative prognosis or treatment that does not fit the individual nor the complexity of their problems. The percentage of patients with severe personality pathology in the three trajectories seemed to confirm the severity of symptoms they represent. The percentage of patients with severe personality pathology was highest in the Stable High and lowest in the Moderate Decreasing trajectory.

Maladaptive personality traits as predictors of trajectories

Confirming our hypothesis, we found that patients with high levels of Negative Affectivity are more likely to experience the highest initial severity of symptom distress (Campbell-Sills et al., 2007; Rantanen et al., 2005). Levels of severity do tend to decrease the strongest in this group regardless of the type of care they receive. This may partly be due to the high levels of Negative Affectivity; and as such, represent a ceiling effect or a regression to the mean. However, this finding is in line with results of a recent systematic review which demonstrates that individuals with high levels of Negative Affectivity or emotional instability respond best to therapy (Roberts, et al., 2017). Furthermore, it could be that these patients were more likely to receive pharmacotherapy, which is known to have a short-term effect. Next, our findings show that high levels of Detachment increase the likelihood of following the Strong Decreasing, but also the Stable High trajectory. This is in line with a previous finding that Detachment, or the introversion dimension, is inflexible and the only trait that remains stable in childhood and adolescence, while other traits decline in a linear

fashion (De Clercq, Van Leeuwen, Den Noortgate, De Bolle & De Fruyt, 2009). It might be that patients with high levels of Detachment can be characterized by an insecure attachment style (Meyer, et al., 2001). For patients in the Stable High trajectory, their attachment style may make them less likely to respond to treatment due to a reduced capacity for reflection and a tendency to withdraw and restrict expression of emotion (Shorey & Snyder, 2006). Galatzer-Levi et al (2013). also found that their non-remitting class was predicted by high avoidance symptoms.

Relations with parents as predictors of trajectories

We found no evidence that support from or conflict with any of the parents was predictive of the trajectories. Late adolescents, besides addressing their parents, may also turn to their friends or romantic partners when they are in need of support (Zarrett & Eccles, 2006). The influence of relationship quality with parents could therefore be exerted via indirect pathways by influencing the quality of later relations (Meadows et al., 2006), which explains the lack of direct effects. Moreover, relations with parents might have been re-established in terms of autonomy and interdependency and therefore contain little conflict (Collins & Laursen, 2004). Future studies could replicate this effect in other age groups, whereby disentangling the possible differential effect of the relation with both parents.

In addition, the results suggested that patients with high levels of Detachment experienced less support from both parents and that there are predominantly girls in the Stable High trajectory, which is predicted by high levels of Detachment. Although sex differences were beyond the scope of the current study, it may be interesting for future studies to look at the interaction between maladaptive traits and relations with parents. This would be supported by the finding that relations with parents are directly related to levels of maladaptive traits and that the relation between emotional problems and (lack of) parental support is strongest for girls (Helsen et. al., 2000; Johnson, Chen & Cohen, 2004). Our sample lacked the power to test this, but it can be expected that support from parents buffers and conflict exacerbates any negative effects of maladaptive traits on change in symptom distress (De Clercq, Van Leeuwen, De Fruyt, Van Hiel & Mervielde, 2008).

Future research, strengths, and limitations

This study gives insight in the predictive effect of maladaptive traits on the course of change in symptom distress in late adolescents with personality pathology. Moreover, this study sheds light on both individual traits as well as contextual factors. The results are closely related to clinical practice, using a large longitudinal sample with ROM-data. Further research is needed to replicate these trajectories. Additionally, it is suggested that future studies with larger samples examine whether relevant factors

can be distinguished that are predictive of the specific rates of change in symptom distress in these trajectories. This can be done by looking at the total change in symptom distress for patients within the trajectories. Because the final amount of patients within the trajectories for whom we could analyse any predictive effects was small, this was beyond the scope of this study. However, looking at the total change in symptom distress between the first and final measurement in the overall sample, this seems a very relevant direction for future studies. It could give important insights in differences in rates of improvement of particular patients, which could contribute to clinical decision making on treatment. Along these lines and based on the results of this study, we suggest that future research focussing on important aspects related to shared decision making, takes into account which types of treatment might fit individuals with specific personality traits best.

This study also had some limitations. First, the personality and social relation scores were only available for a subgroup of 127 patients and class sizes of the three groups were small. Results need to be interpreted with care. However, power was acceptable (Petrucci, 2009), and effects relatively large. Second, the time of assessment of symptom severity and the other measures varied between patients. This could have influenced the results to some extent, however, no drastic changes in personality traits are expected as they show quite some stability (Roberts & Del Vechio, 2000). Third, this study used self-report ratings of parental relations, while additional observer or confederate ratings may have been of significant interest. It is suggested that future studies should rely on multi-informant designs in order to cover all relevant perspectives on an individual's social relationship quality.

Conclusion

In this study, trajectories of change in symptom distress were examined in a clinical group of late adolescents with personality pathology and three distinct trajectories were identified: A Stable High, a Strong Decreasing and a Moderate Decreasing trajectory. High levels of the maladaptive personality traits Negative Affectivity and Detachment were predictive of following the Strong Decreasing trajectory and high levels of Detachment were predictive of following the Stable High trajectory. Support from and conflict with both parents were not predictive of any of the change trajectories. These results contribute to the notion of individual differences in change in symptom distress, as well as provide suggestions for screening patients on individual levels of specific personality traits to gain insight in the expected course of this change.

REFERENCES

Bögels, S., & Phares, V. (2008). Fathers' role in the etiology, prevention and treatment of child anxiety. *Clinical psychology review*, *28*, 539-558. doi:10.1016/j.cpr.2007.07.011

Brumariu, L. E., & Kerns, K. A. (2010). Parent–child attachment and internalizing symptoms in childhood and adolescence. *Development and psychopathology*, *22*, 177-203. doi:10.1017/S0954579409990344

Bryan, C.J., Corso, M.L., Corso, K.A., Morrow, C.E., Kanzler, K.E., Ray, B. (2012). Severity of mental health impairment and trajectories of improvement in an integrated primary care clinic. *Journal of Consulting and Clinical Psychology, 80,* 396-403. doi:10.1037/a0027726

Calmes, C. A., & Roberts, J. E. (2008). Rumination in interpersonal relationships: Does co- rumination explain gender differences in emotional distress and relationship satisfaction among college students? *Cognitive Therapy and Research*, *32*, 577-590. doi:10.1007/s10608-008-9200-3

Campbell-Sills, L., Cohan, S. L., & Stein, M. B. (2007). Relationship of resilience to personality, coping and psychiatric symptoms in young adults. *Behavior Research and Therapy, 44,* 585-599. doi:10.1016/j.brat.2005.05.001

Collins, W.A. & Laursen, B. (2004). Parent Adolescent Relationships and Influences. In *Handbook of Adolescent Psychology*, Eds. R.M. Lerner & L. Sternberg (p. 331-393). John Wiley & Sons, Inc. Hoboken: New Jersey. doi:10.1002/9780471726746.ch11

De Clercq, B., Van Leeuwen, K., De Fruyt, F., Van Hiel , A., & Mervielde, I. (2008). Maladaptive personality traits and psychopathology in childhood and adolescence: The moderating effect of parenting. *Journal of Personality, 76,* 357-383. doi:10.1111/j.1467-6494.2007.00489.x

De Clercq, B., Van Leeuwen, K., Van Den Noortgate, W., De Bolle, M., & De Fruyt, F. (2009). Childhood personality pathology: Dimensional stability and change. *Development and psychopathology*, *21*, 853-869. Doi: 10.1017/S0954579409000467

De Fruyt, F., De Clercq, B., De Bolle, M., Wille, B., Markon, K., & Krueger, R. F. (2013). General and maladaptive traits in a five-factor framework for DSM-5 in a university student sample. *Assessment*, *20*, 295-307. doi:10.1177/1073191113475808

Derogatis, L. & Melisaratos, N. (1983). The Brief Symptom Inventory. *Psychological Medicine, 13*, 595-605. doi:10.1017/s0033291700048017

Dimatteo, R.M. (2004). Social Support and Patient Adherence to Medical Treatment: A Meta- Analysis. *Health Psychology, 23*, 207-218. doi:10.1037/0278-6133.23.2.207

Duggan, C., Huband, N., Smailagic, N., Ferriter, M., & Adams, C. (2007). The use of psychological treatments for people with personality disorder: A systematic review of randomized controlled trials. *Personality and Mental Health*, *1*, 95-125. doi: 10.1002/pmh.22

Friedman, H. S., Kern, M. L., & Reynolds, C. A. (2010). Personality and health, subjective well-being and longevity. *Journal of Personality, 78,* 179-216. doi: 10.1111/j.1467-6494.2009.00613.x

Furman, W. & Buhrmester, D. (2009). The Network of Relationships Inventory: Behavioral Systems Version. *International Journal of Behavioral Development, 33*, 470-478. doi:10.1177/0165025409342634

Galambos, N. L., Barker, E. T., & Almeida, D. M. (2003). Parents do matter: Trajectories of change in externalizing and internalizing problems in early adolescence. *Child development*, *74*(2), 578-594. Doi: 10.1111/1467-8624.7402017

Galatzer-Levi, I.R., Ankri, Y., Freedman, S., Israeli-Shaev, Y., Roitman, P., Gilad, M., &

Shalev, A.Y. (2013). Early PTSD symptom trajectories: persistence, recovery and response to treatment. *PloS One, 8,* e70084. doi:10.1371/journal.pone.0070084

Hair, E. C., Moore, K. A., Garrett, S. B., Ling, T., & Cleveland, K. (2008). The continued

importance of quality parent–adolescent relationships during late adolescence. *Journal of research on adolescence*, *18*, 187-200. doi: 10.1111/j.1532-7795.2008.00556.x

Helsen, M., Vollebergh, W., & Meeus, W. (2000). Social support from parents and friends and emotional problems in adolescence. *Journal of Youth and Adolescence*, *29*, 319-335. doi:10.1023/A:1005147708827

Johnson, J. G., Chen, H., & Cohen, P. (2004). Personality disorder traits during adolescence and relationships with family members during the transition to adulthood. *Journal of Consulting and Clinical Psychology, 72,* 923-932. doi:10.1037/0022-006x.72.6.923

Jung, T., & Wickrama, K. A. S. (2008). An introduction to Latent Class Growth Analysis and Growth Mixture Modeling. *Social and Personality Psychology Compass, 2,* 302-317. doi:10.1192/bjp.bp.106.024737

Krueger, R.F., Derringer, J., Markon, K.E., Watson, D., & Skodol, A.E. (2012). Initial construction of a maladaptive personality trait model and inventory for DSM-5. *Psychological Medicine, 42,* 1879-1890. doi:10.1017/s0033291711002674

Lambert, M. J., & Barley, D. E. (2001). Research summary on the therapeutic relationship and psychotherapy outcome. *Psychotherapy: Theory, research, practice, training*, *38*, 357. Doi: 10.1037/0033-3204.38.4.357

Leichsenring, F., & Leibing, E. (2003). The effectiveness of psychodynamic therapy and cognitive behaviour therapy in the treatment of personality disorders: a meta-analysis. *American Journal of Psychiatry, 160*, 1223-1232. doi:10.1176/appi.ajp.160.7.1223

Lieb, K., Zanarini, M. C., Schmahl, C., Linehan, M. M. & Bohus, M. (2004). Borderline Personality Disorder. The *Lancet, 364,* 453-461.doi:10.1016/s0140-6736(04)16770-6

Maalouf, F. T., Porta, G., Vitiello, B., Emslie, G., Mayes, T., Clarke, G., ... & Birmaher, B. (2012). Do sub-syndromal manic symptoms influence outcome in treatment resistant depression in adolescents? A latent class analysis from the TORDIA study. *Journal of affective disorders*, *138*, 86-95. Doi: 10.1016/j.jad.2011.12.021

Mallouf, J. M., Thornsteinsson, E. B., & Schutte, N. S. (2005). The relation between the Five-Factor Model of Personality and symptoms of clinical disorders. *Journal of Psychopathology and Behavioral Assessment, 27,* 101-114. doi:10.1007/s10862-005-5384-y

Markiewicz, D., Lawford, H., Doyle, A. B., & Haggart, N. (2006). Developmental differences in adolescents' and young adults' use of mothers, fathers, best friends, and romanticpartners to fulfill attachment needs. *Journal of Youth and Adolescence*, *35*, 121-134. doi:10.1007/s10964-005-9014-5

Meadows, S. O., Brown, J. S., & Elder Jr, G. H. (2006). Depressive symptoms, stress, and support: Gendered trajectories from adolescence to young adulthood. *Journal of Youth and Adolescence*, *35*, 89-99. doi:10.1007/s10964-005-9021-6

Meyer, B., Pilkonis, J.A., Proietti, P.M., Heap, C.L., & Egan, M. (2001). Attachment styles and personality disorders as predictors of symptom course. *Journal of Personality Disorders, 15,* 371-389. doi:10.1521/pedi.15.5.371.19200

Muthén, B. (2006). The potential of growth mixture modelling. *Infant and Child Development, 15,* 623-625. doi:10.1002/icd.482

Newton-Howes, G., Tyrer, P., Johnson, T., Mulder, R., Kool, S., Dekker, J., & Schoevers, R. (2014). Influence of personality on the outcome of treatment in depression: systematic review and meta-analysis. *Journal of Personality Disorders*, *28*, 577. doi:10.1521/pedi_2013_27_070

Noorden van, M. S., Giltay, E.J., Wee van der, N.J.A., Zitman, F.G. (2014). De Leiden Routine Outcome Monitoring Studie. *Tijdschrift voor Psychiatrie, 56,* 22-31.

Nylund, K. L., Asparouhov, T., & Muthén, B. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling. Structural Equation Modeling: A Multidisciplinary Journal, 14, 535–569. doi:10.1080/10705510701575396

Paris, J. (2014). The relevance of social capital for the treatment of personality disorders. *Personality and Mental Health, 8*, 24-29. doi:10.1002/pmh.1238

Petrucci, C.J. (2009). A primer for social worker researchers on how to conduct a multinomial logistic regression. *Journal of Social Service Research, 35,* 193-205. doi:10.1080/01488370802678983

Raaijmakers, Q. A. W. (1999). Effectiveness of different missing data treatments in surveys with Likert-type data. *Educational and Psychological Measurement, 59,* 5, 725-748. doi:10.1177/0013164499595001

Rantanen, J., Pulkinnen, L., & Kinnunnen, U. (2005). The Big-Five personality dimensions, work-family conflict and psychological distress. *Journal of Individual Differences, 26,* 155-166. doi:10.1027/1614-0001.26.3.155

Roberts, B. W., & DelVecchio, W. F. (2000). The rank-order consistency of personality traits from childhood to old age: a quantitative review of longitudinal studies. *Psychological bulletin*, *126*, 3. doi:10.1037/003-2909.126.1.3

Roberts, B. W., Luo, J., Briley, D. A., Chow, P. I., Su, R., & Hill, P. L. (2017). A systematic review of personality trait change through intervention. Doi: 10.1037/bul0000088

Sheeber, L. B., Davis, B., Leve, C., Hops, H., & Tildesley, E. (2007). Adolescents' relationships with their mothers and fathers: associations with depressive disorder and subdiagnostic symptomatology. *Journal of Abnormal Psychology*, *116*, 144. doi: 10.1037/0021-843X.116.1.144

Shorey, H. S., & Snyder, C. R. (2006). The role of adult attachment styles in psychopathology and psychotherapy outcomes. *Review of General Psychology*, *10*, 1. doi:10.1037/1089-2680.10.1.1Trimbos Insituut (n.d). GGZ-richtlijnen. Multidisciplinaire Richtlijnontwikkeling. http://www.ggzrichtlijnen.nl/index.php?pagina=/site/pagina.php&id=26

Van Aken, M., & Hessels, C. (2012). Nederlandse vertaling van de Network of Relationships Inventory – Behavioral System Version. Utrecht: Ontwikkelingspsychologie, UU.

Vermote, R., Fonagy, P., Vertommen, H., Verhaest, Y., Strobants, R., Vandeneede, B., …

Peuskens, J. (2009). Outcome and outcome trajectories of personality disordered patients during and after a psycho-analytic hospitalization based treatment. *Journal of Personality Disorders, 23,* 294-307. doi:10.1521/pedi.2009.23.3.294

Wickrama, K. A. S., Wickrama, T., & Lott, R. (2009). Heterogeneity in youth depressive symptom trajectories: Social stratification and implications for young adult physical health. *Journal of Adolescent Health*, *45*, 335-343. Doi: 10.1016/j.jadohealth.2009.04.018

Widiger, T. A. (2011). Integrating normal and abnormal personality structure: a proposal for DSM-V. *Journal of Personality Disorders, 25,* 338-363. doi:10.152/pedi.2011.25.3.33

Zarrett, N., & Eccles, J. (2006). The passage to adulthood: Challenges of late adolescence. *New directions for youth development*, *2006*, 13-28. doi:10.1002/yd.179

Publication:

Koster, N., Laceulle, O.M., Prinzie, P., Van der Heijden, P.T., & Van Aken, M.A.G. (2023). A DAE-Perspective on the Interface between Adaptive an Maladaptive Personality Development: A Conceptual Replication. *Journal of Development and Psychopathology, 1-14.* https://doi.org/10.1017/S0954579423000330

Contribution:

NK, OL, PH and MA conceptualized the study. PP was responsible for data-collection. NK analyzed the data and wrote the first draft of the manuscript. All authors provided feedback on the manuscript.

Chapter 5

A DAE-perspective on **the interface between adaptive and maladaptive personality development**: A conceptual replication

ABSTRACT

This study aimed to examine Dispositional, Adaptational and Environmental (DAE) variables at the intersection of adaptive and maladaptive personality development as a conceptual replication of the DAE-model (Asendorpf & Motti-Stefanidi, 2018). In a community sample of adolescents (N = 463; M_{age} = 13.6 years; 51% female) hypotheses-driven cross-lagged panel models were tested. Longitudinal associations between Dispositional (i.e., neuroticism, disagreeableness and unconscientiousness), Adaptational (i.e., social problems) and Environmental (i.e., perceived quality of the parent-child relationship) variables were investigated. The results partially support the DAE-hypotheses. High levels of neuroticism, disagreeableness and social problems were found to predict the perceived quality of the parent-child relationship. In turn, the perceived quality of the parent-child relationship was found to predict levels of unconscientiousness and social problems. No mediation effects were found and, in contrast to DAE-hypotheses, results did not indicate bi-directional influences between dispositions and adaptations. The results shed light on differential person-environment interactions that shape personality development and the importance of the perceived quality of the parent-child relationship. These findings provide insight in pathways of personality development, that may lead to personality pathology, and demonstrate the value of the DAE-model as a structured guideline that provides testable hypotheses.

The core question of personality development is 'How do you become who you are?'. 'How do you become' relates to the process of development and 'who you are' relates to all the things that make you unique as a person. Adolescence is an important period for personality development in which there are leaps in one's biological, cognitive, psychological, and social development (Costa, McCrae, & Löckenhoff, 2019; Lerner, Boyd, & Du, 2010). Over the years, many different models have been proposed to describe and examine personality development. All of these models agree on the importance of person-environment transactions (e.g., Asendorpf & Motti-Stefanidi, 2018; Clark, 2005; McCrae & Costa, 1997; Roberts, 2009; Shiner & DeYoung, 2011; Van den Akker, Deković, Asscher, & Prinzie, 2014). These models are partially tested empirically and predominantly described theoretically. The recently proposed DAE-model, integrating Dispositional (D), Adaptational (A) and Environmental (E) variables, is built on a strong theoretical foundation, utilizes an integrative perspective, and has been tested empirically (Asendorpf & Motti-Stefanidi, 2018). In this study, we will add to the empirical research on this model by conceptually replicating the DAE model in a community sample at the interface of adaptive and maladaptive personality development and in the context of a developmental pathway that may lead to personality pathology.

D, A, and E at the interface of adaptive and maladaptive personality development

Personality development can be thought of as a process of interactions between a person and its environment (Laceulle & Van Aken, 2017). This dynamic interplay of person and environmental characteristics over time is assumed to promote either resilience or risk, adaptation or maladaptation (Cicchetti & Toth, 2009; Newton-Howes, Clark, & Chanen, 2015; Roberts & Robins, 2004). Person-characteristics are differentiated in dispositions and adaptations. Dispositions can be thought of as abstract, enduring, and relatively stable personality traits (e.g., agreeableness). In interaction with the environment, dispositions become expressed as adaptations: unique, situational, and relatively variable characteristics (e.g., social functioning; McAdams & Pals, 2006). The distinction between dispositions and adaptations has appeared to be difficult but, nevertheless, possible to make, both conceptually and empirically (Henry & Mottus, 2020). This distinction may be particularly valuable because bi-directional influences between these person-characteristics and the environmental context may change with developmental phases (Rutter & Sroufe, 2000). Dispositions and adaptations may alternate as driving forces of personality development through self-stabilizing or -destabilizing processes, as key developmental milestones in specific phases emphasize either opportunities for adaptation or risks for maladaptation (Asendorpf & Motti-Stefanidi, 2018, p. 168; Cicchetti & Rogosh, 2002; Shiner, Masten, & Tellegen, 2002). Adolescence is a particularly important phase to examine personality at the

interface of adaptive and maladaptive development and, therefore, potential pathways towards personality pathology. This phase of increasing autonomy as individuals transition to an independent, adult role requires the development of specific adaptive self and interpersonal functioning skills. These skills are compromised in individuals with personality pathology, which has been found to have its onset in adolescence (APA, 2013; Cicchetti & Rogosh, 2002; Sharp, 2020). With a prevalence of 10-15% of personality pathology in community samples, some adolescents may be at risk to experience personality pathology at some point (Johnson, Cohen, Kasen, Skodol, & Oldham, 2008). Therefore, this distinction between dispositions and adaptations within a community sample of adolescents could provide nuances in understanding pathways of personality development (Granic, Lewis, & Lichtwarck-Aschoff, 2018; Rothbart, 2004).

The DAE-model is based on the understanding of person-environment transactions as the mechanism of personality development. This provides a framework to empirically disentangle associations between variables that are proposed to play a role by using building blocks of triples (Asendorpf & Motti-Stefanidi, 2018). These DAE-triples consist of specific combinations of DAE-variables. In the current investigation, focusing on the intersection of adaptive and maladaptive personality development, we purposefully selected D, A and E variables that have been associated with pathways towards personality pathology.

D: neuroticism, disagreeableness and unconscientiousness. First, the D refers to dispositions or personality traits. In this study we consider neuroticism (disposition to experience psychological distress), disagreeableness (disposition to be cynical, callous, and antagonistic), and unconscientiousness (disposition to be lax, disorganized, and lackadaisical; Costa & McCrae, 1992). Neuroticism (N) has been found to be a robust non-specific indicator that captures shared 'general features' of personality pathology (Brandes, Herzhoff, Smack, & Tackett, 2019; Caspi et al., 2014; Sharp et al., 2015). Also, disagreeableness (A) and unconscientiousness (C) have been associated with personality pathology (De Clercq, De Fruyt, & Van Leeuwen, 2004; Samuel & Widiger, 2008). This particular trait profile (i.e., high levels of neuroticism and low levels of agreeableness and conscientiousness) has been termed the *vulnerability profile* as it is well-established that it relates to personality pathology and, in particular, borderline personality disorder (Fowler, et al., 2018; Morey et al., 2002; Saulsman & Page, 2004). Moreover, this personality trait profile has been described as a higher order 'stability'-factor within the Big Five that reflects stability in (dis-)functioning on emotional, motivational and social domains (DeYoung, Peterson, & Higgins, 2002).

A: Social Problems. Second, the A refers to (mal-)Adaptation. Here, maladaptation can be conceptualized as the inability to show adaptive behavior in different areas of psychosocial (i.e., self and interpersonal) functioning (Eisenberg, Spinrad, & Eggum, 2010). Key moments for adaptation or maladaption are the attainment of developmental milestones. Gaining social competence and functioning in a social network of peer relations is such a milestone and problems in attaining these milestones are particularly related to personality pathology in adolescence (Dow-Edwards et al., 2019; Pincus, Cain, & Halberstadt, 2020; Shiner, 2009). In fact, personality pathology can be conceptualized as 'adaptive failure', or the incompetence to adequately reach developmental milestones (Livesley & Jang, 2000). Even so, personality pathology can be considered an interpersonal problem in its core (Hopwood, Wright, Ansell, & Pincus, 2013). As such, problems in interpersonal functioning that may be emphasized as maladaptation during adolescence may indicate the onset of personality pathology if their problems are severe and persistent (APA, 2013; Pincus, et al., 2020; Shiner, 2009; Wright, Hallquist, Beeney, & Pilkonis, 2013).

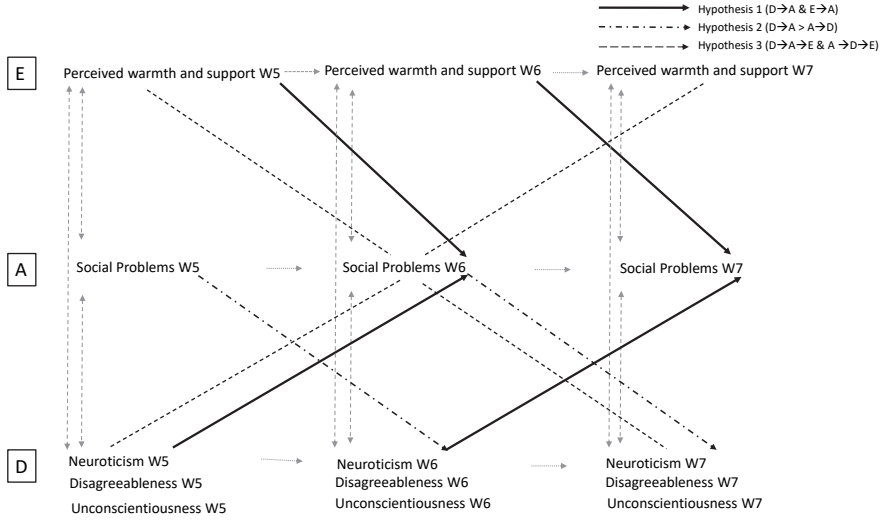
E: Quality of the parent-child relationship: Third, the E refers to an environmental context that hinders or facilitates development. A context of dysfunctional parenting that is non-supportive of reaching developmental milestones that arise at certain ages may contribute to pathways towards personality pathology in particular (Steele, Townsend, & Grenyer, 2019) and psychopathology in general (Erikson, 1963, 1968). One of the key developmental milestones in adolescence is gaining autonomy. A key task for parents, therefore, is supporting their childrens' autonomy while maintaining a warm and close bond (Beveridge & Berg, 2007; Soenens, Vansteenkiste, & Beyers, 2019; Wray-Lake, Crouter, & McHale, 2010). Specifically, if adolescents are confronted with ambiguity, anxiety, or conflict when striving for autonomy it is helpful that the relation with parents offers a safe and supportive environment for this process of maturation (Spear & Kulbok, 2004; Van den Akker et al., 2014).

DAE-model assumptions

To disentangle directions between the D, A and E variables in shaping one's personality development, the DAE-model assumes that the variables have a unique and distinguishable role which can be tested with specific hypotheses (Asendorpf & Motti-Stefanidi, 2018, p.171). To our knowledge, no empirical tests of the DAE model in the specific context of the vulnerability trait profile and a potential pathway towards personality pathology have been conducted. In one empirical study, Asendorpf and Motti-Stefanidi (2018), found that personality traits (D) have a strong influence on conduct and self-esteem with peers (A) and that this adaptation mediates the association between personality traits and peer acceptance or rejection (E) in adolescents. The DAE-triple in the current study allows to specifically focus on personality de-

velopment in a community sample of adolescents, with a focus on the vulnerability trait profile (D), social problems (A) and quality of the parent-child relationship (E). The hypothesized longitudinal associations, as described by Asendorpf and Motti-Stefanidi (2018) are presented in Figure 1 and described below in the context of our chosen DAE-triple.

Figure 1. *Cross-lagged panel model of high Neuroticism, Disagreeableness and Unconscientiousness (D), Social Problems (A) and perceived warmth and autonomy support from parents (E).*



Note. For reasons of visual clarity only the most prominent relations that are hypothesized by the DAE-model are depicted.

Hypothesis 1: A prospective co-influence of D and E on A: *Neuroticism, disagreeableness and unconscientiousness (D) and the quality of the parent-child relationship (E) significantly influence social problems (A;D→A and E→A).*

First, support has been found for the association of these personality traits with social problems (Du, Yardly, & Thomas, 2021) with high levels of neuroticism more generally and low levels of agreeableness and conscientiousness specifically related to social problems (Asendorpf & Van Aken, 2003; Lynam et al., 2005; Vanwoerden, Franssens, Sharp, & De Clercq, 2021). Second, support has been found for the influence of perceived warmth and autonomy support from parents on social functioning: several studies indicate that warmth and autonomy support were related to social orientation, number of friendships, and peer acceptance or rejection in young children and levels of general social well-being in adolescents (Clark & Ladd, 2000; Reshvanloo, Rezvani, Jami, & Shamir, 2020). Longitudinal studies suggested that problems with establishing autonomy from parents and maintaining warm attachment relations with parents

were linked to external problem behaviors, including social problems and social skills (Allen, Hauser, Eickholt, Bell, & O'Connor, 1994; Allen et al., 2002).

Hypothesis 2. Causal dominance of D over A: *The influence of neuroticism, disagreeableness and unconscientiousness on social problems (D→A) is stronger than vice versa (A→D).*

There are contrasting findings concerning causal dominance of the personality traits over social problems. On the one hand, neuroticism specifically has been found to be a genetically inheritable feature that underlies psychopathology (Hink et al., 2013; Kotov, Gamez, Schmidt, & Watson, 2010) and predicts several adaptive outcomes such as self-efficacy (Deutz et al., 2021). High levels of neuroticism and low levels of agreeableness and conscientiousness have been found to be a consistent correlate and risk factor in the development of antisocial or externalizing behaviors (Lynam et al., 2005; Miller, Lynam, & Leukefeld, 2003; Ruiz, Pincus, & Schinka, 2008; Van den Akker, Dekovic, & Prinzie, 2010). Moreover, dispositions (D) and adaptations (A) have been referred to as core and surface characteristics based on the assumption that dispositions are more stable and immune to environmental influences, whereas adaptations are less stable and easily influenced by the environment (Asendorpf & Van Aken, 2003a; Costa et al., 2019). On the other hand, interpersonal problems have been found to predict maladaptive personality traits (Mervielde, De Clercq, De Fruyt, & Van Leeuwen, 2005; Stepp, Smith, Morse, Hallquist, & Pilkonis, 2012). Social experiences, like social exclusion, are found to influence personality traits (De Wall, Deckman, Pond, & Bonser, 2011). Moreover, evidence has been reported for a bidirectional effect, in which externalizing problems, including social problems, predict personality trait domains and vice versa (Klimstra, Akse, Hale, Raaijmakers, & Meeus, 2010; Klimstra, Luykx, Hale, & Goossens, 2014).

These contrasting findings may have to do with a blurred line between what can be considered a disposition or an adaptation (Henry & Mottus, 2020; Kandler, Zimmerman, & McAdams, 2014). In fact, as suggested by Asendorpf & Motti-Stefanidi, (2018) what a disposition and an adaptation are may shift during development through self-stabilizing (adaptation becomes disposition) or destabilizing (disposition becomes adaptation) processes. In line with D→A, dispositions can be seen as relatively stable constructs that influence the risk of developing mental disorders, termed the vulnerability model (Laceulle, Ormel, Vollebergh, Van Aken, & Nederhof, 2014). Whereas, in line with A→D, maladaptations or enduring mental disorders can also influence an individual's personality traits, termed the scar model (Krueger & Tackett, 2003; Ormel, Oerlemans, Raven, Oldehinkel, & Laceulle, 2020). There are many models that describe personality development, however because the vulnerability and scar model hypothesis match the DAE-hypothesis these are considered in this study.

Hypothesis 3. The association between D and E is mediated by A: *The influence of neuroticism, disagreeableness and unconscientiousness on the quality of the parent-child relationship (D→E) or vice versa (E→D), is mediated by social problems (D → A → E or E → A → D).*

First, support has been found for the influence of these personality traits on perceived warmth and autonomy support. Adolescents with more favorable personality traits perceived more support from parents and lower parental coercion than adolescents with less favorable personality traits (Van Aken & Dubas, 2004; Van den Akker et al., 2014). High or low levels of personality traits, specifically agreeableness, may elicit or diminish supportive parenting behaviors (Branje, Van Lieshout, & Van Aken, 2004; De Haan, Dekovic, & Prinzie, 2012). In turn, variability in personality traits was found as a function of parenting: autonomy-supportive parenting elicited expression of favorable personality traits (e.g., conscientiousness, agreeableness), whereas parenting that thwarted autonomy resulted in less favorable personality traits (e.g., disagreeableness and neuroticism; La Guardia & Ryan, 2007). Second, previous findings support the hypothesis of a mediating influence of Social Problems *(D → A → E or E → A → D).* Antisocial behavior and poor social skills may prevent parents from acting warmly and supportive of reaching developmental milestones, especially if personality traits such as disagreeableness make sustaining a warm relationship and navigating development challenging (Mabbe, Soenens, VanSteenkiste, & Van Leeuwen, 2015; Vasilev, Crowell, Beauchaine, Mead, & Gatske-Kopp, 2009). In line with the difficult distinction between dispositions and adaptations (Allemand, Grünenfelder-Steiger, & Flückiger, 2020), we will test the additional hypothesis that dispositions – and not adaptations – have a mediating role in personality development (A → D → E or E→ D → A).

This study

With this study, we aim to gain insight in personality development in a community sample of adolescents by conceptually replicating the DAE-model. Specifically, we investigate the hypothesized interrelations between constructs that are found to play a role in a potential pathway towards personality pathology within the DAE model: three personality traits (D) that constitute the vulnerability trait profile (neuroticism, disagreeableness and unconscientiousness), social problems (A), and quality of the parent-child relationship (E), which is operationalized in this study as self-reported perceived warmth and autonomy support from both father and mother. The results of this study may shed light not only on adolescent personality development at the interface of adaption and maladaptation but also on whether the DAE model can be conceptually replicated in this context.

METHODS

Participants and sampling

This study used data from the ongoing longitudinal Flemish Study on Parenting, Personality, and Development (FSPPD). A detailed description of recruitment, informed consent procedures, and sample characteristics is provided by Prinzie, Onghena, Hellinckx, Grietens, Ghesquiére, & Colpin (2003). Many manuscripts have used this dataset; for example, Deutz and colleagues (2019). In 1999, a proportionally stratified sample of 167 schools in Flanders (Belgium) was composed on the basis of the distribution of schools across the five Flemish provinces. Strata were constructed according to geographical location (province), age, and sex. Children, parents, and teachers were selected randomly (i.e., the names of the children who have had their birthday before 31 March were arranged alphabetically; the second and the last child but one were selected). Because only three measurement waves contained measures of interest, our study analyzed data from the fifth wave (2007), the sixth wave (2009), and the seventh wave (2012).

Sample

The sample consisted of 463 adolescents (52% self-identified female) in the fifth wave, of 433 adolescents (53% female) in the sixth wave, and of 404 (53% female) adolescents in the seventh wave that completed all measures. Some adolescents (N = 3) had missing data on all measures in all waves. They were not included in the analyses due to lack of data for estimation, resulting in a sample of 460 adolescents. Adolescents were between 11-16 years of age in the fifth wave, between 13-18 years in the sixth wave, and between 16-21 years in the seventh wave (W5: M = 13.6 years, SD = 1.14; W6: M = 15.5, SD = 1.16; W7: M = 18.6, SD = 1.16). Of the 463 adolescents in the fifth wave, 88% lived with both parents 10% had divorced parents, and the remainder were unknown.

Measures

Dispositions. Adolescents completed the lexically based Dutch questionnaire *Hierarchical Personality Inventory for Children* to measure child personality traits (HiPIC; Mervielde & De Fruyt, 1999). Adolescents rated characteristics on a 5 point Likert scale ranging from 1 (*completely not applicable*) to 5 (*completely applicable*).; Examples of these characteristics include 'I am quick to panic' (high neuroticism), 'I am quick to lash out' (disagreeableness), or 'I make a mess of things' (unconscientiousness). The HiPIC is an empirically derived questionnaire, including 144 items, grouped into five factors: Extraversion, Benevolence (corresponding to Agreeableness), Conscientiousness, Emotional Stability (corresponding to Neuroticism), and Imagination (corresponding to Openness). Findings concerning the structural replicability, validity,

and temporal stability of the HiPIC have been reported by De Fruyt and colleagues (2006), Prinzie and Dekovic´(2008) and Van den Akker et al. (2014). Internal consistencies of the personality traits over the three waves in this study were .87/.90/.91 for Neuroticism, .90/.92/.93 for Conscientiousness and .89/.89/.89 for Agreeableness respectively. Even though the HiPIC factors may have slightly different names, they are commonly used as a conceptualization of the Big Five personality traits and we will also use them as such (De Clercq et al., 2004; De Fruyt, Mervielde, Hoekstra, & Rolland, 2000; De Pauw, 2017; De Maat et al., in press). Since the HiPIC is originally used to measure adaptive personality traits, the three personality trait dimensions were inversely coded to fit the perspective of this study; namely, investigating the potential developmental pathway towards personality pathology. In this study, the factors that constitute the vulnerability trait profile were used and coded in the direction of this vulnerability profile; i.e, Neuroticism, Disagreeableness and Unconscientiousness.

Adaptations. Adolescents completed the Youth-Self Report (YSR), which includes the social problems scale (YSR; Achenbach, 1991; Verhulst, Van der Ende, & Koot, 1997). Behavioral items (e.g., 'I am not liked by other kids' or 'I act too young for my age') were rated on a 3-point Likert scale ranging from 0 (*not true*) to 2 (*very true or often true*). The YSR has demonstrated adequate reliability and validity for use with children over the age of 11 years old (Achenbach, 1991; Ebesutani et al., 2011). The Social Problems scale was constructed by taking the mean of 11 items. Internal consistencies over the three waves of this study were .68/.66/.66.

Environment. Adolescents completed the autonomy scale of the Mother Father Peer Inventory (MFP-33; Epstein, 1983; Locke & Prinz, 2002). This 7-item scale assesses to which extent adolescents perceive their parents as supportive in gaining autonomy (e.g., 'encourages me to make my own decisions'). Scores are given on a 4 point Likert scale ranging from 1 (*completely not true*) to 4 (*completely true*). Internal consistencies over the three waves of this study were .74/.83/.86 for perceived autonomy support from mothers and .79/.86/.89 for perceived autonomy support from fathers. Adolescents also completed the Parenting Practices Questionnaire (PPQ; Robinson, Mandleco, Frost, & Hart, 1995). This 10-item questionnaire assesses to which extent adolescents perceive parents as warm and involved (e.g., 'shows affection by cuddling, kissing or holding me'). Scores are given on a 5-point Likert scale ranging from 1 (*never)* to 5 (*always)*. Internal consistencies over the three waves of this study were .87/.87/.91 for perceived maternal warmth and .89/.89/.92 for perceived paternal warmth. Both the MFP-33 and the PPQ have demonstrated adequate reliability and validity (Locke & Prinz, 2002).

Analytical plan

First, in order to construct a variable that represents the perceived environment of the adolescents as closely as possible we created one latent 'E'-variable in Mplus by estimating factor scores on for perceived warmth and autonomy support from mother and father. This model was then improved based on modification indices by adding covariance statements between some of the variables. Model fit for this model was χ^2 = 234.65, *df* = 29, CFI = .904, RMSEA = .119. Latent factor scores were saved and included in the dataset as one variable score. Longitudinal associations between the three personality traits, social problems, and the perceived quality of the parent-child relationship were assessed with a cross-lagged panel model by means of structural equation modeling in Mplus 8.2 (Muthén & Muthén, 2017). Maximum Likelihood Robust (MLR) estimation was used (Satorra & Bentler, 1994) to take into account the non-normal distribution of social problems. Model fit was judged by assessing RMSEA's, CFI's and Chi-square with a RMSEA below .08 and a CFI larger than .90 being indicative of a relatively good model fit (Kline, 1998). There has been critique on 'normal' cross-lagged panel models in comparison to random intercept cross-lagged panel models (Hamaker, Kuiper, & Grasman, 2015). However, since the goal of this study was not to distinguish within and between person effects but to conceptually replicate and test the DAE-model, we used traditional cross-lagged panel modelling to ensure comparisons with previous studies (Asendorpf & Motti-Stefanidi, 2018, Klimstra et al., 2010).

We tested the hypothesis-driven DAE model by modelling the paths that are hypothesized in the DAE-model (see Figure 1, Table 3a-3c). We tested a model with all paths constrained (Model 1) against a model with all paths freely estimated (Model 2). Then we tested a model in which the structural model stabilities and within wave correlations were freely estimated but the lagged effects were constrained to be equal (Model 3), corresponding to the models that were run by Asendorpf and Motti-Stefanidi (2018). Thereafter we tested whether the bidirectional relations between dispositions and adaptations could be constrained to be equal (Model 4) and whether a model with differential constraints between the cross-paths should be favored over a model with all cross-paths constrained (Model 5). Thus, we tested several nested models relying on three criteria to compare nested models: a significant chi-square Satorra-Bentler difference test (Steiger, Shapiro, & Browne, 1985), a difference in CFI of >.01 (Cheung & Rensvold, 2002), and a difference in RMSEA of >.01 (Chen, 2007). For the comparison of models, we only favored the less parsimonious model if at least two of these criteria were satisfied.

RESULTS

Descriptives

Means and standard deviations of all variables are presented in Table 1 and correlations are presented in Table 2. All variables were mean-centered.

Table 1. *Means and standard deviations of the D, A, E constructs.*

	W5		W6		W7	
	M	***SD***	***M***	***SD***	***M***	***SD***
D: Neuroticism	2.52	.64	2.58	.67	2.73	.73
D: Disagreeableness	2.49	.42	2.52	.41	2.38	.40
D: Unconscientiousness	2.78	53	2.78	.55	2.60	.57
A: Social Problems	.36	.27	.35	.25	.34	.35
E: Exp. warmth M	3.62	.72	3.45	.73	3.61	.84
E: Exp. warmth F	3.06	.83	2.84	.81	3.01	.89
E: Exp. autonomy support Mother	3.04	.49	3.06	.56	3.14	.59
E: Exp. Autonomy support Father	2.95	.55	2.99	.62	3.09	.65

A test of the DAE model

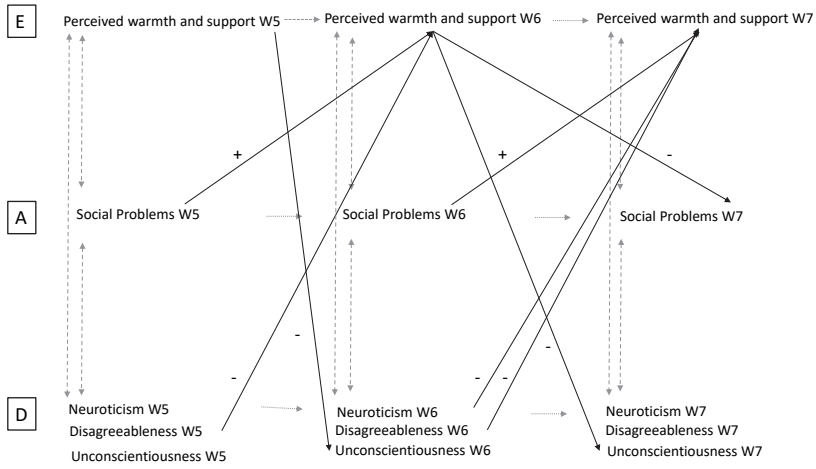
The DAE-model is presented in Figure 1. The results of the model comparison and fit statistics are presented in Table 3a-3c, in which the final models are outlined. The model with all cross-paths constrained but all structural model stabilities freely estimated is identical to the model that was tested by Asendorpf and Motti-Stefanidi (2018, p. 171), with the exception that we do not model latent variables. This model (model 4, Table 3b and 3c) could be chosen as the most parsimonious model for disagreeableness and unconscientiousness. However, for neuroticism we had to choose a less parsimonious model (model 5, Table 3a) in which the lagged effects varied between waves based on model comparison results. Model fit indices for each model are described below. Stability paths were freely estimated and are presented in Table 4. The three DAE-model hypotheses were tested and results are presented in Table 5a and 5b. The statistically significant predictive relations are presented in Figure 2. Standardized results were examined to indicate the relative strength of the effects. All analyses were controlled for age.

Table 2. *Correlations between the dispositional traits (Neuroticism (N), Disagreeableness (A), Unconscientiousness (C), Social Problems (SP), the perceived relationship quality (warmth and autonomy support) with parents (E) and Age across waves (W5, W6, W7).*

	2	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**
1 NW5	.64[a]	.53[a]	.27[a]	.15[a]	-.03	.11[b]	.05	-.00	.43[a]	.29[a]	.21[a]	-.10[b]	-.03	-.03	.04		
2 NW6		.69[a]	.15[a]	.20[a]	.02	.01	.01	-.03	.22[a]	.40[a]	.24[a]	-.08	-.02	-.09[b]		.09	
3 NW7			.05	.07	.10[b]	-.01	-.03	.01	.26[a]	.32[a]	.44[a]	-.06	-.02	-.11[b]			.06
4 AW5				.61[a]	.43[a]	.42[a]	.30[a]	.27[a]	.35[a]	.25[a]	.18	-.26[a]	-.23[a]	-.23[a]	.06		
5 AW6					.59[a]	.20[a]	.35[a]	.24[a]	.22[a]	.30[a]	.19[a]	-.13[a]	-.22[a]	-.22[a]		-.01	
6 AW7						.13[a]	.21[a]	.32[a]	.18[a]	.20[a]	.26[a]	-.16[a]	-.22[a]	-.24[a]			-.02
7 CW5							.68[a]	.56[a]	.31[a]	.17[a]	.14[a]	-.29[a]	-.22[a]	-.15[a]	.15[a]		
8 CW6								.67[a]	.25[a]	.21[a]	.19[a]	-.24[a]	-.30[a]	-.18[a]		.02	
9 CW7									.27[a]	.18[a]	.23[a]	-.19[a]	-.23[a]	-.21[a]			-.08
10 SPW5										.55[a]	.43[a]	-.17[a]	-.12[a]	-.09[b]	-.00		
11 SPW6											.51[a]	-.12[b]	-.13[b]	-.10[b]		.03	
12 SPW7												-.12[b]	-.19[a]	-.26[a]			-.00
13 EW5													.78[a]	.48[a]	-.19[a]		
14 EW6														.66[a]		-.08	
15 EW7																	.02
16 AgeW5																	
17 AgeW6																	
18 AgeW7																	

[a] $p < .001$, [b] $p < .05$

Figure 2. *The significant results of the three cross-lagged panel models and the direction of these predictive relations, + positive, - negative*



Neuroticism

Fit indices for the model with neuroticism as disposition (model 5, Table 3a) were: χ^2 = 30.71**, *df* = 18, CFI = .99, RMSEA = .04. Concerning H1, we did not find a co-influence of D and E on A. Levels of neuroticism did not predict levels of social problems (D → A). Although the quality of the parent-child relationship did predict levels of social problems (E → A) from the 6th to the 7th wave, this was not the case from the 5th to the 6th wave. This indicates that a better perceived quality of the parent-child relationship is more predictive of fewer social problems between middle and late adolescence than early and middle adolescence. Concerning H2, more social problems did not predict higher levels of neuroticism (A → D). The effects of D on A and vice versa could be constrained to be equal. Concerning H3, we found that high levels of neuroticism predicted lower perceived parent-child relationship quality and that more social problems predicted higher perceived parent-child relationship quality (D → E and A → E). However, these effects were mediated by neither D nor A.

Table 3a. *Selection process of the best fitting model for Neuroticism*

		Model 1	Model 2	Model 3	Model 4	Model 5
	(df)	27	9	21	22	18
	χ^2	310.131	26.535	46.917	47.134	30.707
	SCF	1.1049	1.0419	1.0519	1.0520	1.0721
	RMSEA	.14	.06	.05	.05	.04
	CFI	.82	.99	.98	.98	.99
Satorra-Bentler	CD		1.14	1.06	1.05	.96
Difference Test	TRd		277.206	20.49	.20	17.33
	Δdf		18	12	1	4
	p for TRd Δdf		.00	.06	.64	.00

Note. Const. = constrained; Model 1 = fully constrained; Model 2 = fully unconstrained; Model 3 = Stability paths freely estimated, cross-paths constrained; Model 4 = Stability paths freely estimated, cross-paths constrained and effects of D on A and A on D constrained to be equal; Model 5 = Stability paths freely estimated, effects of D on A and A on D constrained to be equal and effects of A on E and E on D freely estimated.

Disagreeableness

Fit indices for the model with disagreeableness as disposition (model 4, Table 3b) were: $\chi^2 = 34.06^{**}$, *df* = 22, CFI = .99, RMSEA = .04. Concerning H1, results did not indicate a co-influence of D and E on A, meaning that levels of disagreeableness and the perceived quality of the parent-child relationship did not predict levels of social problems over time. Concerning H2, more social problems did not predict higher levels of disagreeableness (A → D). The effects of D on A and vice versa could be constrained to be equal. Concerning H3, we found that high levels of disagreeableness predicted lower perceived parent-child relationship quality and that more social problems predicted higher perceived parent-child relationship quality (D → E and A → E). However, these effects were mediated by neither D nor A.

Unconscientiousness

Fit indices for the model with unconscientiousness as disposition (model 4, Table 3c) were: $\chi^2 = 41.30^{**}$, *df* = 22, CFI = .99, RMSEA = .04. Concerning H1, results did not indicate a co-influence of D and E on A. Neither higher levels of unconscientiousness nor the quality of the parent-child relationship predicted more social problems (D & E → A). Concerning H2, we found that more social problems did not predict higher levels of unconscientiousness (A → D). The effects of D on A and vice versa could be constrained to be equal. Concerning H3, we found that more social problems predicted higher parent-child relationship quality (A → E). In turn, a higher parent-child relationship quality predicted lower levels of unconscientiousness (E → D). However, these effects were mediated by neither D nor A.

Table 3b. *Selection process of the best fitting model Disagreeableness*

		Model 1	Model 2	Model 3	Model 4	Model 5
	(df)	27	9	21	22	18
	χ^2	288.850	23.036	33.812	34.062	27.262
	SCF	1.1580	1.0599	1.0825	1.0772	1.0698
	RMSEA	.14	.06	.04	.03	.03
	CFI	.80	.99	.99	.99	.99
Satorra-Bentler	CD		1.21	1.10	.97	1.11
Difference Test	TRd		267.44	11.08	.09	6.78
	Δdf		18	12	1	4
	p for TRd Δdf		.00	.52	.76	.15

Note. Const. = constrained. Model 1 = fully constrained; Model 2 = fully unconstrained; Model 3 = Stability paths freely estimated, cross-paths constrained; Model 4 = Stability paths freely estimated, cross-paths constrained and effects of D on A and A on D constrained to be equal; Model 5 = Stability paths freely estimated, effects of D on A and A on D constrained to be equal and effects of A on E and E on D freely estimated.

Table 3c. *Selection process of the best fitting model for Unconscientiousness*

		Model 1	Model 2	Model 3	Model 4	Model 5
	(df)	28	9	21	22	18
	χ^2	304.258	29.560	40.531	41.299	33.463
	SCF	1.2107	1.0993	1.0862	1.0810	1.0913
	RMSEA	.14	.07	.04	.04	.04
	CFI	.80	.99	.99	.99	.99
Satorra-Bentler	CD		1.26	1.08	.97	.84
Difference Test	TRd		265.83	10.71	.63	76
	Δdf		19	12	1	4
	p for TRd Δdf		.00	.55	.42	.10

Note. Const. = constrained. Model 1 = fully constrained; Model 2 = fully unconstrained; Model 3 = Stability paths freely estimated, cross-paths constrained; Model 4 = Stability paths freely estimated, cross-paths constrained and effects of D on A and A on D constrained to be equal; Model 5 = Stability paths freely estimated, effects of D on A and A on D constrained to be equal and effects of A on E and E on D freely estimated.

Table 4. *Estimated stability paths of the D, A, E constructs.*

	W5-6			W6-7			W5-7		
D: Neuroticism	.66**			.63**			.17**		
D: Disagreeableness	.60**			.54**			.07		
D: Unconscientiousness	.71**			.55**			.22*		
	N	A	C	N	A	C	N	A	C
A: Social Problems	.52**	.51**	.51**	.36**	.38**	.39**	.16*	.18*	.18*
E: Per. P-C RQ	.80**	.79**	.79**	.78**	.74**	.76**	-.07	-.05	-.05

Note. N = High Neuroticism, A = Low Agreeableness, C = Low Conscientiousness, Per. P-C RQ = Perceived Parent-Child Relationship Quality;
$^{**}p < .001$, $^{*}p < .05$

Table 5a. *Test of the DAE-hypotheses for Disagreeableness and Unconscientiousness*

	Disagreeableness			Unconscientiousness		
	B	***S.E***	***p***	***B***	***S.E***	***p***
Hypothesis 1.						
D → A	.03	.02	.088	.01	.01	.411
E → A	-.00	.01	.747	-.00	.01	.652
Hypothesis 2						
A → D	.03	.02	.088	.01	.01	.411
Hypothesis 3						
D → E	-.05	.02	.024	.00	.02	.850
A → E	.02	.01	.002	.02	.01	.002
E → D	-.01	.01	.138	-.05	.01	.000
D → A → E	.00	.00	.131	.00	.00	.438
E → A → D	.00	.00	.754	.00	.00	.707
A → D → E	-.00	.00	.217	.00	.00	.851
E → D → A	.00	.00	.250	-.00	.00	.426

Note. '→' = predicting

Table 5b. *Test of the DAE-hypotheses for Neuroticism*

	Neuroticism			Neuroticism		
	W5-6			W6-7		
	B	***S.E***	***p***	***B***	***S.E.***	***p***
Hypothesis 1.						
D → A	.02	.01	.105	.02	.01	.105
E → A	-.00	.03	.984	-.08	.03	.001
Hypothesis 2						
A → D	.02	.01	.105	.02	.01	.105
Hypothesis 3						
D → E	.02	.02	.268	-.05	.02	.026
A → E	.02	.01	.002	.02	.01	.002
E → D	.02	.02	.281	.02	.02	.281
D → A → E	.00	.00	.167			
E → A → D	.00	.00	.984			
A → D → E	-.00	.00	.219			
E → D → A	.00	.00	.363			

Note. '→' = predicting

DISCUSSION

The goal of this study was to increase our understanding of personality at the interface of adaptive and maladaptive developmental pathways by conceptually replicating the DAE-model (Asendorpf & Motti-Stefanidi, 2018) in a community sample of adolescents. We studied the longitudinal effects of D, A, and E variables that are found to play a role in shaping personality (dis-)functioning; i.e., neuroticism, disagreeableness, unconscientiousness, social problems, and quality of the parent-child relationship (perceived warmth and autonomy support from mother and father). The DAE-model provides a general and flexible framework for empirical tests of specific hypotheses that are grounded in theory.

In this longitudinal study covering 5 years, we examined three cross-lagged panel models to investigate the effect of the three personality traits (i.e., dispositions) separately. Our correlational results indicated that individuals with more social problems reported a lower perceived quality of the parent-child relationship and higher levels of neuroticism, disagreeableness, and unconscientiousness. Furthermore, those who reported a higher perceived quality of the parent-child relationship reported lower levels of disagreeableness and unconscientiousness. Results of our longitudinal DAE-models were partially in line with the findings of Asendorpf and Motti-Stefanidi (2018). First, concerning the predictive relation between the A and E variables, we found support for the influence of adaptations on the environment. Specifically, more social problems predicted a higher perceived quality of the parent-child relationship. Second, the role of the three dispositions was more complex; the results indicated that higher levels of disagreeableness, in all waves, and of neuroticism, from the 6th to the 7th wave, predicted a lower quality of the parent-child relationship. A higher quality of the parent-child relationship in turn predicted lower levels of unconscientiousness. Further, in the model in which neuroticism was considered, a higher quality of the parent-child relationship predicted lower levels of social problems from the 6th to the 7th wave. Thus, we could not fully support the H1 hypothesis, but found partial support when looking at neuroticism only. Third, we found no evidence for bidirectional influences of the dispositions neuroticism, disagreeableness, and unconscientiousness on social problems as adaptation. These effects of D on A and vice versa could be constrained to be equal in all three models, which indicates that our results do not support H2. Finally, whereas examining H3 provided insight in the differential role of D, A, and E variables in personality development, we did not find support for mediation effects. Social problems did not explain the effect between dispositions and the quality of the parent-child relationship nor did dispositions explain the effect between social problems and the quality of the parent-child relationship.

What do these findings tell us about personality development?

First, they give insight into the role of the perceived quality of the parent-child relationship during the developmental phase of increased emphasis on social functioning. In our community sample of adolescents, more social problems predicted a higher perceived quality of the parent-child relationship two and three years later. This may be because parents observe their children struggling in the social domain and increase their involvement to support them in navigating this difficult developmental phase. This interpretation is based on Kerr and Stattin (2003) who suggest that parenting is often a result of the characteristics or behavior of adolescents. This particular association was examined by Branje and colleagues (2008) by asking adolescents the question 'when you are having problems in relations with someone else, or when you are feeling lonely, who helps you?'. Results revealed that emotional problems seemed to increase perceived parental support and parent-adolescent communications (Helsen, Vollebergh, & Meeus, 2000). Data from a meta-analysis by Gorrese (2016) supported the hypothesis that social problems lead to distress and internalizing problems, which in turn may lead to increased parental involvement. In addition, and in line with our finding of fewer social problems, a large body of research has consistently shown that quality of the parent-child relationship is associated with many positive outcomes during adolescence, such as improved social skills, greater well-being (Anaya & Perez-Edgar, 2019; Branje, Hale, & Meeus, 2008) and a decrease in externalizing problems (Zhang et al., 2020).

Second, our consideration of the three personality traits gives insight into the complexity of person-environment transactions and how these shape both adaptive and maladaptive pathways of personality development. As a possible explanation for the consistent positive effect of parenting on a broad range of adolescent outcomes, our findings indicated that higher quality of the parent-child relationship predicts lower levels of unconscientiousness over time. This is in line with previous findings that describe how parenting investment or involvement, particularly in a higher SES sample, promotes higher levels of conscientiousness (Conger, Martin, & Masarik, 2021; Schofield et al., 2012; Van den Akker, 2014). This finding emphasizes the importance of the parent-child relationship as a beneficial environmental factor that drives adaptive pathways of personality development in this phase. However, the reverse also appears to be true. Higher levels of disagreeableness and neuroticism demonstrated a negative predictive effect on the perceived quality of the parent-child relationship. This finding has been documented before as agreeableness seems to be a strong longitudinal predictor of perceived parental warmth and support (Branje, Van Lieshout, & Van Aken, 2004; De Haan, Dekovic, & Prinzie, 2012; Van den Akker et al., 2014).

Third, even though all the concurrent associations indicated that the three personality traits were associated with social problems – which is as expected and in line with previous studies (Holland & Roisman, 2008; Jensen-Campbell & Malcolm, 2007) – we did not find bidirectional predictive influences between the D and A variables. Despite neuroticism being frequently found as a general predictor of psychopathology and personality pathology in particular (Kotov et al., 2010; Shields, Giljen, Espana, & Tacket, 2021; Widiger & Oltmanns, 2017), it did not predict higher levels of social problems in our study. Previous studies have argued that neuroticism may predominantly predict internalizing problems (Mezquita et al., 2015). However, the vulnerability profile, in general, and higher levels of disagreeableness and unconscientiousness, in particularly, have been found to be predictive of externalizing problems and aggression (Favini et al., 2018; Klimstra et al., 2010; Mezquita et al., 2015). In comparison to what may be expected in a clinical sample (Rescorla et al., 2017), the community sample reported relatively low levels of social problems, which are also less extreme than externalizing problems or aggression. This may play a role in this unexpected non-finding.

Our question whether maladaptive personality development is best described by a vulnerability model or a scar model could not be answered based on our results due to the lack of evidence for predictive relations between D and A variables. It is important that future research in a clinical sample replicates this examination. Two outcomes may be hypothesized: 1) Either the results will be the same, because in this large community sample a similar spectrum of scores on personality traits and social problems is expected compared to what may be expected in a clinical sample (Van Dijk, Krueger, & Laceulle, 2021). This is in line with a 'shifting' notion of psychopathology in general and personality pathology in particular as dimensional constructs (Hopwood, et al., 2018). This means that there is no clear-cut distinction between 'clinical' and 'non-clinical'. Adolescents in community samples may be on maladaptive developmental pathways and adolescents in clinical samples may be on adaptive developmental pathways. Therefore, a broad range of scores may be found in both samples. Or 2) the results will show stronger relations if, in contrast to the relatively low variance in this community sample, more extreme levels of D, A, and E constructs allow for more variance to be explained by the variables. Support for this latter hypothesis comes from a study by Ro and Clark (2013), who found strong associations between personality traits and social functioning in a clinical sample and only modest associations in a non-clinical sample. Indeed, in a clinical sample, maladaptive personality traits were found to be predictive of social problems (VanWoerden et al., 2021). It is notable that in all models the effects of dispositions on adaptations and vice versa could be constrained to be equal. This hints at the discussion as to whether a distinction can be made between dispositions and adaptations and raises the question of whether a

mediation would be likely. In this study, at least, this did not seem to be the case and indeed we did not find any mediation results. The distinction between dispositions and adaptations, or core and surface characteristics, has often been made in an attempt to separate lasting (trait) characteristics from temporal (state) characteristics (Asendorpf & Van Aken, 2003; Henry & Mottus, 2020). However, a comprehensive review of Kandler and colleagues (2014) concluded that there is little support for the distinction between D and A. This underlines that whether a factor can be labeled as a disposition or adaptation may be heavily dependent on the (developmental) context in which it is examined. This is in line with the notion of self-stabilizing and -destabilizing processes that place the DAE-distinctions in this developmental context and, consequently, the necessity of selecting the appropriate 'triples' for investigating personality at a specific developmental stage (Asendorpf & Motti-Stefanidi, 2018, p. 168). It may be that in this sample of young to late adolescents a different DAE-triple would have been more appropriate. For example, a triple with A- or E-variables that are highly specific to the adolescent context such as social competence in relation to peers, academic achievement or, rule-abiding versus rule-breaking conduct (A; Shiner, 2000) and/or peer support or teacher-student relationship quality (E; Kidger et al., 2012; Mitic et al., 2021). Our findings point to the importance of this developmental context, by showing differential results across early-mid and mid-late adolescence, and of this environmental context, by indicating a unique role for the quality of the parent-child relation in driving personality development.

Taken together, these person-environment transactions shed light on the dynamic interplay of D, A, and E variables that shape pathways of personality development. However, what do they tell us about 'pathways towards or away from personality pathology'? To answer this question, we want to emphasize that we have chosen neuroticism, disagreeableness, and unconscientiousness as a vulnerability profile (Saulsman & Page, 2004). Considering these dispositions in separate analyses to reduce model complexity may give an incomplete image of reality. After all, *within* an individual, these dispositions are combined and together shape one's dispositional profile, which in turn affects personality development. The size of this dataset of community adolescents did not allow us to select a subset of adolescents who had either high or low scores on this profile. However, the results of the separate analyses considered, in tandem and in context of previous studies, facilitate a nuanced discussion of person-environment transactions and pathways at the interface of adaptive and maladaptive personality development. Generally, from our results it seems that less favorable personality traits (disagreeableness and neuroticism) negatively influence the environment and drive maladaptive personality development. High levels of neuroticism become especially important in mid-late adolescence. A favorable environment in turn seems to result in more favorable adaptations and personality traits and drives

adaptive personality development. Furthermore, it seems that less favorable adaptations, such as social problems, may elicit an enhanced reaction from the environment to facilitate adaptive development, such as an increase in the perceived quality of the parent-child relationship. Two hypotheses about what these findings may mean for a pathway towards personality pathology may be highlighted: First, our findings suggest that the environment, and not D or A variables, may play an important differentiating role in personality development in a community sample of adolescents. This is supported by a study of Manders and colleagues (2006) in which the quality of the adolescent-parent relationship mediated the relationship between the personality traits agreeableness, neuroticism, and conscientiousness and externalizing, but not internalizing, problem behavior in adolescents. This points to the great and continued importance of the parent-child relationship as it provides either a supportive or unsupportive environmental context which, at least at this developmental stage, is a significant predictor of temporal and lasting effects on person-characteristics, such as personality pathology (Finn, Zimmerman, & Neyer, 2017; Oudekerk, Allen, Hessel, & Molloy, 2015; Steel et al., 2019). Second, personality pathology is conceptualized as a combination of maladaptive personality traits and functioning problems (APA, 2013). Through a developmental lens, personality traits represent a form of continuity, or continued vulnerability. Problems in functioning represent a form of discontinuity that typically arises as adolescence requires the developmental milestones of identity, self-regulation, intimacy, and empathy (Sharp, 2020). The results of our study suggest that the D, A, and E variables each have their own unique contribution in shaping either an adaptive or maladaptive developmental trajectory and may become more or less important during specific developmental phases. This hints at the theorized cascade model of personality development in which a cascade of developmental deviations is hypothesized that successively shape a maladaptive trajectory of personality development. In other words, if an adolescent has a neurotic *and* disagreeable temperament *and* perceives the relationship with parents as non-supportive, this combination may lead to higher levels of unconscientiousness and social problems. In this case, the adolescent may be on a pathway towards personality pathology. However, from our results it is clear that adaptive person and environmental characteristics may counter-balance this maladaptive development. Future studies could investigate these two interesting hypotheses. Drawing our findings and these hypotheses into clinical practice suggests that attention for one's maladaptive characteristics may be important to diagnose personality pathology, yet attention for maladaptive *and* adaptive person and environmental characteristics, especially the parent-child relationship, is equally important to understand and treat these problems.

Limitations and future directions

There are several limitations to this study. First, we examined associations between the D, A, and E variables in a community sample. It is likely that the endorsement of items of all D, A, and E variables differs in clinical samples, in which social problems, for example, are expected to be more common and more extreme. However, given the continuity between most normal and abnormal personality dimensions (Van Dijk, Krueger, & Laceulle, 2020; Van den Akker, Prinzie, & Overbeek, 2016) and the prevalence of personality pathology in community samples, some adolescents in a community sample may be at risk to follow a maladaptive pathway of personality development (Johnson, Cohen, Kasen, Skodol, & Oldham, 2008). However, it is important to test whether these associations are the same in a clinical sample of adolescents. Second, in this study we only used self-reports, which causes shared method variance among the measurements and warrants hesitancy in drawing strong conclusions based solely on these results. However, in selecting our triple of DAE-variables we inspected all items to ensure item-overlap was minimalized and deliberately decided on a D-variable that is considered a 'stability-factor', an A-variable that is a behavioral construct, and an E variable that is related to a specific environmental context. Other informant-reports or observations on these measures could add important additional information. Strictly speaking, on this particular point our study did not completely align with the study of Asendorpf and Motti-Stefanidi (2018), as they used peer-reports for their E construct. Although this may seem a more valid way of truly placing personality development in its environmental context, it may not be the actual but the perceived environment that most influences personality development and functioning (Prins, Oenema, Van der Horst, & Brug, 2009). As such, it is notable that the usefulness of the DAE-model as a structured framework could also be replicated with solely self-reported measures. Third, even though we have controlled for age, it may be that the D, A, and E constructs differ in meaning between early and late adolescence. It was beyond the scope of this study and sample size to examine developmental patterns; however, future research could investigate whether these may emerge over time. This is in line with a fourth limitation; namely, that in this study we only focused on adolescence, whereas personality development is of course a life-long process. Consideration of a longer time period may be particularly necessary to gain insight in self-stabilizing and -destabilizing processes. In addition, this may shed light on whether – or possibly better said – *when and in what context* personality development is best described by a vulnerability, scar, cascade, or other model. Fifth, due to a lack of extreme scores we were not able to examine a subset of individuals who endorse the vulnerability profile. Future studies may examine the hypothesized relations in this particular sub-group of individuals.

Conclusion

It was the goal of this study to conceptually replicate the DAE-model to gain insight into personality at the intersection of adaptive and maladaptive development. Both the process of designing our study along the DAE-hypotheses as well as our findings lead us to conclude that this model provides a relevant and practical structure to integrate the extensive body of studies on personality development and potential pathways towards personality pathology. It forces researchers to choose a DAE-triple based on a thorough understanding of previous findings and their hypothesized interrelations. Furthermore, our findings provide directions in answering the question 'how do you become who you are?' It is a complex question that may be answered differently depending on developmental phases, important developmental milestones, and the cascade of interactions between person and environmental characteristics. Adolescence is a vulnerable phase for turning on either adaptive or maladaptive developmental pathways due to emotional, behavioral, cognitive, and, most of all, social challenges. In this study, we have found support for the importance of the quality of the parent child relationship for shaping an adaptive developmental pathway. The dispositional traits neuroticism and disagreeableness seem to shape a maladaptive pathway. Thus the intersection of adaptive and maladaptive development in this phase seems to be determined by a nuanced interplay of person-environment transactions that shape the unique individual.

REFERENCES

Achenbach, T.M. (1991). Manual for the youth self report and 1991 profile. Burlington, VT: University of Vermont.

Allemand M., Grünenfelder-Steiger A.E., Flückiger C. (2020). Scar Model. In: Zeigler-Hill V., Shackelford T. (Eds.), *Encyclopedia of Personality and Individual Differences.* Springer, Cham. Doi:10.1007/978-3-319-28099-8_855-1

Allen, J. P., Hauser, S. T., Eickholt, C., Bell, K. L., & O'Connor, T. G. (1994). Autonomy and relatedness in family interactions as predictors of expressions of negative adolescent affect. *Journal of Research on Adolescence*, *4*(4), 535-552. Doi: 10.1207/s15327795jra0404_6

Allen, J. P., Marsh, P., McFarland, C., McElhaney, K. B., Land, D. J., Jodl, K. M., & Peck, S. (2002). Attachment and autonomy as predictors of the development of social skills and delinquency during mid adolescence. *Journal of Consulting and Clinical Psychology, 70*(1), 56–66. Doi: 10.1037/0022-006X.70.1.56

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

Anaya, B., & Pérez-Edgar, K. (2019). Personality development in the context of individual traits and parenting dynamics. *New Ideas in Psychology*, *53*, 37-46. Doi: 10.1016/j.newideapsych.2018.03.002

Asendorpf, J. B., & Van Aken, M. A. (2003). Validity of Big Five personality judgments in childhood: A 9 year longitudinal study. *European Journal of Personality*, *17*(1), 1-17. Doi: 10.1002/per.460

Asendorpf, J. B., & Van Aken, M. A. (2003a). Personality–relationship transaction in adolescence: Core versus surface personality characteristics. *Journal of Personality*, *71*(4), 629-666. Doi: 10.1111/1467-6494.7104005

Asendorpf, J. B., & Motti-Stefanidi, F. (2018). Mediated disposition–environment transactions: The DAE model. *European Journal of Personality*, *32*(3), 167-185. Doi: 10.1002/per.2118

Beveridge, R. M., & Berg, C. A. (2007). Parent–adolescent collaboration: An interpersonal model for understanding optimal interactions. *Clinical Child and Family Psychology Review*, *10*(1), 25-52. Doi: 10.1007/s10567-006-0015-z

Brandes, C. M., Herzhoff, K., Smack, A. J., & Tackett, J. L. (2019). The p factor and the n factor: Associations between the general factors of psychopathology and neuroticism in children. *Clinical Psychological Science*, *7*(6), 1266-1284. Doi: 10.1177/2167702619859332

Branje, S. J., Hale III, W. W., & Meeus, W. H. (2008). Reciprocal development of parent–adolescent support and adolescent problem behaviors. In M. Kerr, H. Stattin & R. Engels (Eds.), *What can parents do* (pp. 135-162). John Wiley & Sons.

Branje, S. J. T., van Lieshout, C. F. M., & van Aken, M. A. G. (2004). Relations between big five personality characteristics and perceived support in adolescents' families. *Journal of Personality and Social Psychology, 86*(4), 615-628. Doi: 10.1037/0022-3514.86.4.615

Caspi, A., Houts, R. M., Belsky, D. W., Goldman-Mellor, S. J., Harrington, H., Israel, S., ... & Moffitt, T. E. (2014). The p factor: One general psychopathology factor in the structure of psychiatric disorders? *Clinical Psychological Science*, *2*(2), 119-137. Doi: 10.1177/2167702613497473

Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural Equation Modeling, 14*(3), 464–504. Doi: 10.1080/10705510701301834

Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling, 9*(2), 233–255. Doi: 10.1207/s15328007sem0902_5

Cicchetti, D., & Toth, S. L. (2009). The past achievements and future promises of developmental psychopathology: The coming of age of a discipline. *Journal of Child Psychology and Psychiatry*, *50*(1-2), 16-25. Doi: 10.1111/j.1469-7610.2008.01979.x

Cicchetti, D., & Rogosch, F. A. (2002). A developmental psychopathology perspective on adolescence. *Journal of consulting and clinical psychology*, *70*, 6-20. Doi: 10.1037/0022-006X.70.1.6

Clark, L. A. (2005). Temperament as a unifying basis for personality and psychopathology. *Journal of Abnormal Psychology, 114*(4), 505–521. Doi: 10.1037/0021-843x.114.4.505

Clark, K. E., & Ladd, G. W. (2000). Connectedness and autonomy support in parent–child relationships: Links to children's socioemotional orientation and peer relationships. *Developmental Psychology, 36*(4), 485–498. Doi: 10.1037/0012-1649.36.4.485

Conger, R. D., Martin, M. J., & Masarik, A. S. (2021). Dynamic associations among socioeconomic status (SES), parenting investments, and conscientiousness across time and generations. *Developmental Psychology, 57*(2), 147–163. Doi: 10.1037/dev0000463

Costa, P.T. & McCrea, J.J. (1992) Revised NEO Personality Inventory (NEO-PI-R) and NEO Five Factor Inventory (NEO-FFI) Professional Manual. Odessa: PAR

Costa, P. T., McCrae, R. R., Löckenhoff, C. E. (2019). Personality across the life span. *Annual Review of Psychology, 70*(1), 423–448. Doi: 10.1146/annurev-psych-010418-103244

De Clercq, B., De Fruyt, F., & Van Leeuwen, K. (2004). A "little five" lexically based perspective on personality disorder symptoms in adolescence. *Journal of Personality Disorders*, *18*(5), 479-499. Doi: 10.1521/pedi.18.5.479.51324

De Fruyt, F., Bartels, M., Van Leeuwen, K. G., De Clercq, B., Decuyper, M., & Mervielde, I. (2006). Five types of personality continuity in childhood and adolescence. *Journal of Personality and Social Psychology*, *91*(3), 538-552. Doi: 10.1037/0022-3514.91.3.538

De Fruyt, F., Mervielde, I., Hoekstra, H. A., & Rolland, J. P. (2000). Assessing adolescents' personality with the NEO PI-R. *Assessment*, *7*(4), 329-345. Doi: 10.1177/107319110000700403?nols=y

De Haan, A. D., Deković, M., & Prinzie, P. (2012). Longitudinal impact of parental and adolescent personality on parenting. *Journal of Personality and Social Psychology*, *102*(1), 189-199. Doi: 10.1037/a0025254

De Maat, D. A., Lucassen, N., Shiner, R. L., & Prinzie, P. (in press). A person-centered approach to resilience and vulnerability in emerging adulthood: Predictions from parenting and personality in adolescence. *Development and Psychopathology.* OSF preprint: Doi: 10.31219/osf.io/mkbax

De Pauw, S. S. (2017). Childhood personality and temperament. In T. Widiger (Ed.) *The Oxford handbook of the five factor model* (pp. 243-280). Oxford University Press

Deutz, M., van Eldik, W. M., Over de Vest, V. T., Ringoot, A., de Haan, A. D., & Prinzie, P. (2021). An 11-year prospective study of personality X parenting interactions as predictors of self-efficacy in young adults: diathesis-stress or differential susceptibility?. *BMC Psychology*, *9*(1), 172-. Doi: 10.1186/s40359-021-00676-6

Deutz, M. H., Woltering, S., Vossen, H. G., Deković, M., van Baar, A. L., & Prinzie, P. (2019). Underlying psychophysiology of dysregulation: Resting heart rate and heart rate reactivity in relation to childhood dysregulation. *Journal of the American Academy of Child & Adolescent Psychiatry*, *58*(6), 589-599. Doi: 10.1016/j.jaac.2018.09.434

DeWall, C. N., Deckman, T., Pond Jr, R. S., & Bonser, I. (2011). Belongingness as a core personality trait: How social exclusion influences social functioning and personality expression. *Journal of personality*, *79*(6), 1281-1314. Doi: 10.1111/j.1467-6494.2010.00695.x

DeYoung, C. G., Peterson, J. B., & Higgins, D. M. (2002). Higher-order factors of the Big Five predict conformity: Are there neuroses of health?. *Personality and Individual differences*, *33*(4), 533-552. Doi: 10.1016/S0191-8869(01)00171-4

Dow-Edwards, D., MacMaster, F. P., Peterson, B. S., Niesink, R., Andersen, S., & Braams, B. R. (2019). Experience during adolescence shapes brain development: From synapses and networks to

normal and pathological behavior. *Neurotoxicology and Teratology*, *76*, 106834. Doi: 10.1016/j.ntt.2019.106834

Du, T. V., Yardley, A. E., & Thomas, K. M. (2021). Mapping big five personality traits within and across domains of interpersonal functioning. *Assessment*, *28*(5), 1358-1375. Doi: 10.1177/1073191120913952

Ebesutani, C., Bernstein, A., Martinez, J. I., Chorpita, B. F., & Weisz, J. R. (2011). The youth self report: Applicability and validity across younger and older youths. *Journal of Clinical Child & Adolescent Psychology*, *40*(2), 338-346. Doi: 10.1080/15374416.2011.546041

Eisenberg, N., Spinrad, T. L., & Eggum, N. D. (2010). Emotion-related self-regulation and its relation to children's maladjustment. *Annual review of clinical psychology*, *6*(1), 495-5 25. Doi: 10.1146/annurev.clinpsy.121208.131208

Epstein, S. (1983). The Mother-Father-Peer Scale. Unpublished manuscript, University of Massachusetts, Amherst.

Erikson, E. H. (1963). *Childhood and Society*, Norton, New York.

Erikson, E. H. (1968). *Identity: Youth and Crisis*, Norton, New York

Favini, A., Gerbino, M., Eisenberg, N., Lunetti, C., & Thartori, E. (2018). Personality profiles and adolescents' maladjustment: A longitudinal study. *Personality and Individual Differences*, *129*, 119-125. Doi: 10.1016/j.paid.2018.03.016

Finn, C., Zimmermann, J., & Neyer, F. J. (2017). Personality development in close relationships. In *Personality development across the lifespan* (pp. 357-369). Academic Press.

Fowler, J. C., Madan, A., Allen, J. G., Patriquin, M., Sharp, C., Oldham, J. M., & Frueh, B. C. (2018). Clinical utility of the DSM-5 alternative model for borderline personality disorder: Differential diagnostic accuracy of the BFI, SCID-II-PQ, and PID-5. *Comprehensive psychiatry*, *80*, 97-103. Doi: 10.1016/j.comppsych.2017.09.003

Gorrese, A. Peer Attachment and Youth Internalizing Problems: A Meta-Analysis. *Child Youth Care Forum, 45***,** 177–204 (2016). Doi: 10.1007/s10566-015-9333-y

Granic, I., Lewis, M. D., & Lichwarck-Aschoff, A. (2018). Complex Pathways to Psychopathology. *Psychological Inquiry*, *29*(3), 145-150. Doi: 10.1080/1047840X.2018.1513682

Hamaker, E. L., Kuiper, R. M., & Grasman, R. P. (2015). A critique of the cross-lagged panel model. *Psychological methods*, *20*(1), 102. Doi: 10.1037%2Fa0038889

Helsen, M., Vollebergh, W., & Meeus, W. (2000). Social support from parents and friends and emotional problems in adolescence. *Journal of youth and adolescence*, *29*(3), 319-335. Doi: 10.1023/A:1005147708827

Henry, S., & Mõttus, R. (2020). Traits and adaptations: A theoretical examination and new empirical evidence. *European Journal of* Personality, *34*(3), 265-284. Doi: 10.1002/per.2248

Hink, L. K., Rhee, S. H., Corley, R. P., Cosgrove, V. E., Hewitt, J. K., Schulz-Heik, R. J., ... & Waldman, I. D. (2013). Personality dimensions as common and broadband-specific features for internalizing and externalizing disorders. *Journal of Abnormal Child Psychology*, *41*(6), 939-957. Doi: 10.1007/s10802-013-9730-3

Holland, A. S., & Roisman, G. I. (2008). Big Five personality traits and relationship quality: Self-reported, observational, and physiological evidence. *Journal of Social and Personal Relationships*, *25*(5), 811-829. Doi: 10.1177/0265407508096697

Hopwood, C. J., Wright, A. G., Ansell, E. B., & Pincus, A. L. (2013). The interpersonal core of personality pathology. *Journal of Personality Disorders*, *27*(3), 270-295. Doi: 10.1521/pedi.2013.27.3.270

Jensen-Campbell, L. A., & Malcolm, K. T. (2007). The importance of conscientiousness in adolescent interpersonal relationships. *Personality and Social Psychology Bulletin*, *33*(3), 368-383. Doi: 10.1177/0146167206296104

Johnson, J. G., Cohen, P., Kasen, S., Skodol, A. E., & Oldham, J.M. (2008). Cumulative prevalence of personality disorders between adolescence and adulthood. *Acta Psychiatrica Scandinavica, 118*(5), 410–413. Doi: 10.1111/j.1600-0447.2008.01231.x

Kandler, C., Zimmermann, J., & McAdams, D. P. (2014). Core and surface characteristics for the description and theory of personality differences and development. *European Journal of Personality*, *28*(3), 231-243. Doi: 10.1002/per.1952

Kerr, M., & Stattin, H. (2003). Parenting of adolescents: Action or reaction. In: A. Crouter & A. Booth (Eds.), *Children´s influence on family dynamics: The neglected side of family relationships* (pp. 121-151). Mahwah, NJ: Erlbaum.

Kidger, J., Araya, R., Donovan, J., & Gunnell, D. (2012). The effect of the school environment on the emotional health of adolescents: a systematic review. *Pediatrics*, *129*(5), 925-949. Doi: 10.1542/peds.2011-2248

Klimstra, T. A., Akse, J., Hale III, W. W., Raaijmakers, Q. A., & Meeus, W. H. (2010). Longitudinal associations between personality traits and problem behavior symptoms in adolescence. *Journal of Research in Personality*, *44*(2), 273-284. Doi: 10.1016/j.jrp.2010.02.004

Klimstra, T. A., Luyckx, K., Hale III, W. W., & Goossens, L. (2014). Personality and externalizing behavior in the transition to young adulthood: The additive value of personality facets. *Social Psychiatry and psychiatric epidemiology*, *49*(8), 1319-1333. Doi: 10.1007/s00127-014-0827-y

Kline, R. B. (1998). Principles and practice of structural equation modeling. New York: The Guilford Press.

Kotov, R., Gamez, W., Schmidt, F., & Watson, D. (2010). Linking "big" personality traits to anxiety, depressive, and substance use disorders: a meta-analysis. Psychol Bull, 136(5), 768–821. Doi: 10.1037/a0020327

Krueger, R. F., & Tackett, J. L. (2003). Personality and psychopathology: Working toward the bigger picture. *Journal of Personality Disorders*, *17*(2), 109-128. Doi: 10.1521/pedi.17.2.109.23986

Laceulle, O. M., & Aken, M. A. G. van (2018). Transactions of personality and the social environment during development. In V. Zeigler-Hill & T. K. Shackelford (Eds.), Origins of personality and individual differences. The SAGE Handbook of Personality and Individual Differences, band 2. Hoboken: SAGE. Doi: 10.4135/9781526451200.n14

Laceulle, O. M., Ormel, J., Vollebergh, W. A., Van Aken, M. A., & Nederhof, E. (2014). A test of the vulnerability model: temperament and temperament change as predictors of future mental disorders–the TRAILS study. *Journal of Child Psychology and Psychiatry*, *55*(3), 227-236. Doi: 10.1111/jcpp.12141

La Guardia, J. G., & Ryan, R. M. (2007). Why identities fluctuate: Variability in traits as a function of situational variations in autonomy support. *Journal of Personality*, *75*(6), 1205-1228. Doi: 10.1111/j.1467-6494.2007.00473.x

Lerner, R. M., Boyd, M. J., & Du, D. (2010). Adolescent development. *The corsini encyclopedia of psychology*, 1-2. Doi: 10.1002/9780470479216.corpsy0019

Livesley, W. J., & Jang, K. L. (2000). Toward an empirically based classification of personality disorder. *Journal of Personality Disorders*, *14*(2), 137-151. Doi: 10.1521/pedi.2000.14.2.137

Locke, L. M., & Prinz, R. J. (2002). Measurement of parental discipline and nurturance. *Clinical psychology review*, *22*(6), 895-929. Doi: 10.1016/s0272-7358(02)00133-2

Lynam, D. R., Caspi, A., Moffitt, T. E., Raine, A., Loeber, R., & Stouthamer-Loeber, M. (2005). Adolescent psychopathy and the big five: Results from two samples. *Journal of abnormal child psychology*, *33*(4), 431-443. Doi: 10.1007/s10648-005-5724-0

Mabbe, E., Soenens, B., Vansteenkiste, M., & Van Leeuwen, K. (2016). Do personality traits moderate relations between psychologically controlling parenting and problem behavior in adolescents? *Journal of Personality*, *84*(3), 381-392. Doi: 10.1111/jopy.12166

Manders, W. A., Scholte, R. H., Janssens, J. M., & De Bruyn, E. E. (2006). Adolescent personality, problem behaviour and the quality of the parent–adolescent relationship. *European Journal of Personality*, *20*(3), 237-254. Doi: 10.1002/per.574

McAdams, D. P., & Pals, J. L. (2006). A new Big Five: fundamental principles for an integrative science of personality. *American psychologist*, *61*(3), 204. Doi: 10.1037/0003-066X.61.3.204

McCrae, R. R., & Costa Jr, P. T. (1997). Personality trait structure as a human universal. *American Psychologist*, *52*(5), 509-516. Doi: 10.1037/0003-066x.52.5.509

Mervielde, I., De Clercq, B., De Fruyt, F., & Van Leeuwen, K. (2005). Temperament, personality, and developmental psychopathology as childhood antecedents of personality disorders. *Journal of Personality disorders*, *19*(2), 171-201. Doi: 10.1521/pedi.19.2.171.62627

Mervielde, I., & De Fruyt, F. (1999). Construction of the hierarchical personality inventory for children (HiPIC). In I. Mervielde, I. Deary, F. De Fruyt & F. Ostendorf (Eds.), *Personality Psychology in Europe: Proceedings of the eighth European conference on personality* (pp. 107-127). Tilburg University Press.

Mezquita, L., Ibáñez, M. I., Villa, H., Fañanás, L., Moya-Higueras, J., & Ortet, G. (2015). Five-factor model and internalizing and externalizing syndromes: A 5-year prospective study. *Personality and Individual differences*, *79*, 98-103. Doi: 10.1016/j.paid.2015.02.002

Miller, J. D., Lynam, D., & Leukefeld, C. (2003). Examining antisocial behavior through the lens of the five factor model of personality. *Aggressive Behavior: Official Journal of the International Society for Research on Aggression*, *29*(6), 497-514. Doi: 10.1002/ab.10064

Mitic, M., Woodcock, K. A., Amering, M., Krammer, I., Stiehl, K. A., Zehetmayer, S., & Schrank, B. (2021). Toward an integrated model of supportive peer relationships in early adolescence: A systematic review and exploratory meta-analysis. *Frontiers in Psychology*, *12*, 589403. Doi: 10.3389/fpsyg.2021.589403

Morey, L. C., Gunderson, J. G., Quigley, B. D., Shea, M. T., Skodol, A. E., McGlashan, T. H., ... & Zanarini, M. C. (2002). The representation of borderline, avoidant, obsessive-compulsive, and schizotypal personality disorders by the five-factor model. *Journal of personality disorders*, *16*(3), 215-234. Doi: 10.1521/pedi.16.3.215.22541

Muthén, L. K., & Muthén, B. (2017). *Mplus user's guide: Statistical analysis with latent variables, user's guide*. Muthén & Muthén.

Newton-Howes, G., Clark, L. A., & Chanen, A. (2015). Personality disorder across the life course. *The Lancet*, *385*, 727-734. Doi: 10.1016/S0140-6736(14)61283-6

Ormel, J., Oerlemans, A. M., Raven, D., Oldehinkel, A. J., & Laceulle, O. M. (2020). Mental disorder during adolescence: Evidence of arrested personality development. *Clinical Psychological Science, 8*(3), 395-411. Doi: 10.1177/2167702619896372

Oudekerk, B. A., Allen, J. P., Hessel, E. T., & Molloy, L. E. (2015). The cascading development of autonomy and relatedness from adolescence to adulthood. *Child Development*, *86*(2), 472-485. Doi: 10.1111/cdev.12313

Pincus, A. L., Cain, N. M., & Halberstadt, A. L. (2020). Importance of self and other in defining personality pathology. *Psychopathology*, *53*(3), 133-140. Doi: 10.1159/000506313

Prins, R. G., Oenema, A., van der Horst, K., & Brug, J. (2009). Objective and perceived availability of physical activity opportunities: differences in associations with physical activity behavior among urban adolescents. *International Journal of Behavioral Nutrition and Physical Activity*, *6*(1), 1-9. Doi: 10.1186/1479-5868-6-70

Prinzie, P., & Deković, M. (2008). Continuity and change of childhood personality characteristics through the lens of teachers. *Personality and Individual Differences*, *45*(1), 82-88. Doi: 10.1016/j.paid.2008.03.002

Prinzie, P., Onghena, P., Hellinckx, W., Grietens, H., Ghesquière, P., & Colpin, H. (2004). Parent and child personality characteristics as predictors of negative discipline and externalizing problem behavior in children. *European Journal of Personality*, *18*(2), 73-102. Doi: 10.1002/per.501

Rescorla, L. A., Ewing, G., Ivanova, M. Y., Aebi, M., Bilenberg, N., Dieleman, G. C., ... & Verhulst, F. C. (2017). Parent–adolescent cross-informant agreement in clinically referred samples: findings from seven societies. *Journal of Clinical Child & Adolescent Psychology*, *46*(1), 74-87. Doi: 10.1080/15374416.2016.1266642

Ro, E., & Clark, L. A. (2013). Interrelations between psychosocial functioning and adaptive-and maladaptive-range personality traits. *Journal of abnormal psychology*, *122*(3), 822. Doi: 10.1037/a0033620

Roberts, B. W. (2009). Back to the future: Personality and assessment and personality development. *Journal of Research in Personality*, *43*(2), 137-145. Doi: 10.1016/j.jrp.2008.12.015

Roberts, B. W., & Robins, R. W. (2004). Person-environment fit and its implications for personality development: A longitudinal study. *Journal of Personality*, *72*(1), 89-110. Doi: 10.1111/j.0022-3506.2004.00257.x

Robinson, C. C., Mandleco, B., Frost Olsen, S., & Hart, C. H. (1995). Authoritative, authoritarian, and permissive parenting practices: Development of a new measure. Psychological Reports, 77, 819-830. Doi:10.2466/pr0.1995.77.3.819

Rothbart, M. K. (2004). Commentary: Differentiated measures of temperament and multiple pathways to childhood disorders. *Journal of clinical child and adolescent psychology*, *33*(1), 82-87. Doi: 10.1207/S15374424JCCP3301_8

Ruiz, M. A., Pincus, A. L., & Schinka, J. A. (2008). Externalizing pathology and the five-factor model: A meta-analysis of personality traits associated with antisocial personality disorder, substance use disorder, and their co-occurrence. *Journal of Personality Disorders*, *22*(4), 365-388. Doi: 10.1521/pedi.2008.22.4.365

Rutter, M., & Sroufe, L. A. (2000). Developmental psychopathology: Concepts and challenges. *Development and psychopathology*, *12*(3), 265-296. Doi: 10.1017/S0954579400003023

Samuel, D. B., & Widiger, T. A. (2008). A meta-analytic review of the relationships between the five-factor model and DSM-IV-TR personality disorders: A facet level analysis. *Clinical Psychology Review*, *28*(8), 1326-1342. Doi: 10.1016/j.cpr.2008.07.002

Satorra, A., & Bentler, P. M. (1994). *Corrections to test statistics and standard errors in covariance structure analysis.* In A. von Eye & C. C. Clogg (Eds.), *Latent variables analysis: Applications for developmental research* (pp. 399–419). Sage Publications, Inc.

Saulsman, L. M., & Page, A. C. (2004). The five-factor model and personality disorder empirical literature: A meta-analytic review. *Clinical Psychology Review*, *23*(8), 1055-1085. Doi: 10.1016/j.cpr.2002.09.001

Schofield, T. J., Conger, R. D., Donnellan, M. B., Jochem, R., Widaman, K. F., & Conger, K. J. (2012). Parent personality and positive parenting as predictors of positive adolescent personality development over time. *Merrill-Palmer quarterly (Wayne State University. Press)*, *58*(2), 255. Doi: 10.1353/mpq.2012.0008

Sharp, C. (2020). Adolescent personality pathology and the Alternative Model for Personality Disorders: Self development as nexus. *Psychopathology*, *53*(3), 198-204. Doi: 10.1159/000507588

Sharp, C., Wright, A. G., Fowler, J. C., Frueh, B. C., Allen, J. G., Oldham, J., & Clark, L. A. (2015). The structure of personality pathology: Both general ('g') and specific ('s') factors? *Journal of Abnormal Psychology*, *124*(2), 387-398. Doi: 10.1037/abn0000033

Shields, A. N., Giljen, M., España, R. A., & Tackett, J. L. (2021). The p factor and dimensional structural models of youth personality pathology and psychopathology. *Current opinion in psychology*, *37*, 21-25. Doi: 10.1016/j.copsyc.2020.06.005

Shiner, R. L. (2000). Linking Childhood Personality With Adaptation. *Journal of Personality and Social Psychology, 78* (2), 310-325. Doi: 10.1037/0022-3514.78.2.310

Shiner, R. L. (2009). The development of personality disorders: Perspectives from normal personality development in childhood and adolescence. *Development and psychopathology*, *21*(3), 715-734. Doi: 10.1017/S0954579409000406

Shiner, L. G., & DeYoung, C. G. (2011). The structure of temperament and personality traits: A developmental perspective. In P. D. Zelazo (Ed.), *The Oxford handbook of developmental psychology* (Vol. 2, pp. 113–135). Oxford, UK: Oxford University Press

Shiner, R. L., Masten, A. S., & Tellegen, A. (2002). A developmental perspective on personality in emerging adulthood: childhood antecedents and concurrent adaptation. *Journal of Personality and Social Psychology*, *83*, 1165-1177. Doi: 10.1037/0022-3514.83.5.1165

Soenens, B., Vansteenkiste, M., & Beyers, W. (2019). Parenting adolescents. In M. H. Bornstein (Ed.), *Handbook of Parenting: Children and Parenting* (3rd ed., Vol.1, pp. 101–167). New York: Routledge.

Spear, H. J., & Kulbok, P. (2004). Autonomy and adolescence: A concept analysis. *Public Health Nursing*, *21*(2), 144-152. Doi: 10.1111/j.0737-1209.2004.021208.x

Steele, K. R., Townsend, M. L., & Grenyer, B. F. (2019). Parenting and personality disorder: An overview and meta-synthesis of systematic reviews. *PloS one*, *14*(10), e0223038. Doi: 10.1371/journal.pone.0223038

Steiger, J. H., Shapiro, A., & Browne, M. W. (1985). On the multivariate asymptotic distribution of sequential chi-square statistics. *Psychometrika, 50*(3), 253–264. Doi: 10.1007/bf02294104

Stepp, S. D., Smith, T. D., Morse, J. Q., Hallquist, M. N., & Pilkonis, P. A. (2012). Prospective associations among borderline personality disorder symptoms, interpersonal problems, and aggressive behaviors. *Journal of Interpersonal Violence*, *27*(1), 103-124. Doi: 10.1177/0886260511416468

Tanhaye Reshvanloo, F., Saeidi Rezvani, T., Jami, R., & Seadatee Shamir, A. (2020). Psycho-Social Well-being in Female Students: the Role of Perceived Parental Autonomy Support and Warmth. *Iranian journal of educational sociology*, *3*(3), 1-8. Doi: 10.52547/ijes.3.3.1

Van Aken, M. A., & Semon Dubas, J. (2004). Personality type, social relationships, and problem behavior in adolescence. *European Journal of Developmental Psychology*, *1*(4), 331-348. Doi: 10.1080/17405620444000166

Van den Akker, A. L., Deković, M., Asscher, J. J., & Prinzie, P. (2014). Mean-level personality development across childhood and adolescence: A temporary defiance of the maturity principle and bidirectional associations with parenting. *Journal of Personality and Social Psychology, 107*(4), 736-750. Doi: 10.1037/a0037248

Van den Akker, A. L., Prinzie, P., & Overbeek, G. J. (2016). Dimensions of personality pathology in adolescence: Longitudinal associations with Big Five personality dimensions across childhood and adolescence. *Journal of Personality Disorders, 30*(2), 211-231. Doi: 10.1521/pedi_2015_29_190

Van Dijk, I., Krueger, R. F., & Laceulle, O. M. (2020). DSM–5 alternative personality disorder model traits as extreme variants of five-factor model traits in adolescents. *Personality Disorders: Theory, Research, and Treatment*, published online. Doi: 10.1037/per0000409

Van den Akker, A. L., Deković, M., & Prinzie, P. (2010). Transitioning to adolescence: How changes in child personality and overreactive parenting predict adolescent adjustment problems. *Development and Psychopathology*, *22*(1), 151-163. Doi: 10.1017/S0954579409990320

Vanwoerden, S., Franssens, R., Sharp, C., & De Clercq, B. (2021). The development of criterion A Personality Pathology: The Relevance of Childhood Social Functioning for Young Adult Daily Self-Functioning. *Child Psychiatry & Human Development*, 1-13. Doi: 10.1007/s10578-021-01187-6

Vasilev, C. A., Crowell, S. E., Beauchaine, T. P., Mead, H. K., & Gatzke-Kopp, L. M. (2009). Correspondence between physiological and self-report measures of emotion dysregulation: A longitudinal investigation of youth with and without psychopathology. *Journal of Child Psychology and Psychiatry*, *50*(11), 1357-1364. Doi: 10.1111/j.1469-7610.2009.02172.x

Verhulst, F. C., van der Ende, J., & Koot, J. M. (1997). *Handleiding voor de Youth Self-Report (YSR)*. Rotterdam, The Netherlands: Afdeling Kinder-en Jeugdpsychiatrie, Sophia Kinderziekenhuis/ Academisch Ziekenhuis Rotterdam/Erasmus Universiteit Rotterdam.

Widiger, T. A., & Oltmanns, J. R. (2017). Neuroticism is a fundamental domain of personality with enormous public health implications. *World Psychiatry*, *16*(2), 144. Doi: 10.1002/wps.20411

Wray-Lake, L., Crouter, A. C., & McHale, S. M. (2010). Developmental patterns in decision-making autonomy across middle childhood and adolescence: European American parents' perspectives. *Child development*, *81*(2), 636-651. Doi: 10.1111/j.1467-8624.2009.01420.x

Wright, A. G., Hallquist, M. N., Beeney, J. E., & Pilkonis, P. A. (2013). Borderline personality pathology and the stability of interpersonal problems. *Journal of Abnormal Psychology*, *122*(4), 1094. Doi: 10.1037/a0034658

Zhang, J., Lee, S. K., Piehler, T. F., Gewirtz, A. H., & August, G. J. (2020). Bidirectional relations between parenting practices and child externalizing behaviors in formerly homeless families: A random-intercept cross-lagged panel analysis. *Parenting*, *20*(3), 177-199. Doi: 10.1080/15295192.2019.1694833

Section 2
Shared and Unique Narrative Identities

Publication:

Koster, N., Lusin, I., van der Heijden, P. T., Laceulle, O. M., & van Aken, M. A. (2022). Understanding personality pathology in a clinical sample of youth: study protocol for the longitudinal research project 'APOLO'. *BMJ open, 12(6),* e054485. https://bmjopen.bmj.com/content/12/6/e054485.abstract

Contribution:

NK, MA, PH and OL conceptualized the APOLO research project. NK, IL, MA, PH and OL conceptualized this paper. NK wrote the background section of the manuscript, and IL wrote the methods section of the manuscript. NK and IL both contributed to the discussion section. NK and IL wrote the first draft of the manuscript. All authors provided feedback on the manuscript.

Chapter 6

Understanding personality pathology in a clinical sample of youth: Study protocol for the longitudinal research project **'APOLO'**

ABSTRACT

We propose that a dimensional, multi-layered perspective is well-suited to study maladaptive personality development in adolescents. Such a perspective can help understand pathways to personality pathology and contribute to early detection of personality pathology. The research project 'APOLO' (a Dutch language acronym for Adolescents and their Personality Development: a Longitudinal Study) is designed based on McAdams' integrative three-layered model of personality development and assesses the interaction between dispositional traits, characteristic adaptations, the narrative identity, and functioning. APOLO is a longitudinal research project that takes place in two outpatient mental health care centres. Participants are adolescents between 12-23 years and their parents. Data collection is set up to build a data set for scientific research, as well as to use the data for diagnostic assessment and systematic treatment evaluation of individual patients. Measurements are conducted half-yearly for a period of 3 years and consist of self- and informant-report questionnaires and a semi-structured interview. The included constructs fit the dimensional model of personality development: maladaptive personality traits (dispositional traits), social relations, stressful life events (characteristic adaptations), a turning point (narrative identity) and functioning (e.g., achievement of youth specific milestones). Primary research questions will be analysed using structural equation modelling. The results will contribute to our understanding of (the development of) personality pathology as a complex phenomenon in which both structural personality characteristics as well as unique individual adaptations play a role. Furthermore, results will give directions for early detection and timely interventions. This study has been approved by the Ethical Review Committee of the Utrecht University Faculty for Social and Behavioural Sciences (FETC17-092). Data distribution will be anonymous and results will be disseminated via communication canals appropriate for diverse audiences, this includes both clinical and scientific conferences, papers published in national and international peer-reviewed journals and (social) media platforms.

Recent developments in the field of personality psychology (ie, scientific research on personality structure) and clinical personality psychology (ie, assessment and treatment of personality disorders) show a gradual shift towards a dimensional and personalised understanding of personality pathology. Among others, this has resulted in a proposal for the Alternative Model of Personality Disorders (AMPD) in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; American Psychiatric Association (APA), 2013). Furthermore, an increased focus on developmental trajectories and precursors of personality pathology and the recognition of an individual's wishes, motivations, social roles and the life story as central to understand and treat personality pathology, as opposed to solely deviating patterns in cognition, affect, interpersonal functioning and impulse control (APA, 2013; Shiner, 2009; Vanheule et al., 2019) This is a promising perspective in the search for a valid way to understand pathways of (mal-)adaptive personality development and to recognize personality pathology early in its development (Sharp & Wall, 2018). Based on these recent developments, we designed and set up 'APOLO' (Dutch language acronym for Adolescents and their Personality Development: A Longitudinal Study), a longitudinal two-site research project, along a three-layered integrative model of personality development. In this study protocol, we use the term *personality pathology* when referring to pervasive, persistent and pathological personality functioning and high levels of maladaptive personality traits, whereas the term *personality disorder* refers to a categorical DSM-5-II classification (APA; 2013).

Personality pathology as a developmental, dimensional and multifaceted construct

Personality as a construct can be described both with respect to how it varies between individuals, as well as how it is unique for one person (McAdams, 2015). A strong body of research has studied personality development with pivotal contributions that point to general and specific person and environmental factors and their continuous interaction that play a role (Sharp & Wall, 2018; Westen & Chang, 200; Wright et al., 2016) Personality *pathology* therefore does not appear overnight but can be thought of as the result of a pathway of maladaptive personality development (Beauchaine et al., 2009), best described as a process of person–environment transactions in which precursors may be defined (Laceulle & van Aken, 2018). Specifically, person–characteristics that make one vulnerable, such as maladaptive personality trait levels (e.g., negative affectivity and antagonism) (Markon et al., 2005), regulation problems (e.g., emotion regulation) (Sharp et al., 2011) and/or pathology (eg, internalizing and/or externalizing symptoms) (Sharp & Wall, 2018), may interact with experiencing environmental characteristics that make one vulnerable, such as negative parent–child relations (e.g., insecure attachment and harsh parenting) (Bromley et al., 2005), negative peer relations (e.g., bullying) (Wolke et al., 2012) and/or experiencing childhood

trauma (e.g., neglect and sexual abuse) (Jovev et al., 2013). In early adolescence, these transactions may lead to the onset of more severe problems in self and interpersonal functioning, which generally intensify in mid-adolescence and decline in late adolescence.4 These functioning problems may fluctuate strongly over time and within individuals; however, individual stylistic features of these problems is much more stable (Wright et al., 2016). As such, maladaptive personality development is a unique, complex and multidimensional process for every person that may lead to one outcome for the individual: pervasive, persistent and pathological problems, or personality pathology (McAdams et al., 2018).

With regard to personality pathology, this means that classification of personality disorders as distinct categories can essentially be thought of as an simplified reflection of reality. Personality pathology can be described by a combination of maladaptive personality traits and strengths or difficulties in one's functioning (APA, 2013; Hopwood et al., 2018; Widiger & Simonsen, 2005). Accordingly, the AMPD conceptualizes personality pathology as one's unique combination of maladaptive traits and facets (criterion B) and one's functioning in the self and interpersonal domain (criterion A; APA, 2013). This gradual shift towards a dimensional perspective ensures an increasingly better understanding of personality pathology as a complex and multidimensional phenomenon, the development of which can be understood through continuous person– environment transactions (Pincus et al., 2019).

Personality pathology as a combination of multiple layers

An integrative theoretical framework that is well suited to study (mal)adaptive personality development is proposed by Dan McAdams (McAdams & Olson, 2010; McAdams & Pals, 2006). This framework has development at its core and conceptualizes personality as a multi-dimensional construct by differentiating three interacting layers. The first layer, *dispositional traits*, represents broad dimensions of individual differences, accounting for interindividual consistency and continuity in behavior, thought and feeling across situations over time. This layer is conceived of personality traits like the five-factor model that are thought of as heritable and relatively stable (Asendorpf & Van Aken, 2003; McCrae & Costa, 2021). The second layer, *characteristic adaptations*, represents those aspects of human individuality that concern motivational, social–cognitive and developmental adaptations, contextualized in time, place and/or social role. In other words, the way an individual adapts in a unique way in response to the environment he or she lives in. These adaptations are thought of as less stable (Asendorpf & Van Aken, 2003; Henry & Mõttus, 2020; McAdams & Olson, 2010). The third layer, *narrative identity*, constitutes a personal story about one's life that helps shape behavior and establish identity. Through autobiographical reasoning,

a person creates a narrative of how different parts of, and change in, one's past, present and future are related (McAdams & McLean, 2013).

APOLO's objectives and relevance

Recently, this model has been used to study personality pathology (Adler et al., 2012; Day & Bryan, 2007; Lind et al., 2019; Mulay et al., 2018). However, studies are limited, especially in clinical groups, in both number and/or quality and mainly concern adult participants. The complete model has not been tested in longitudinal studies with (clinical samples of) youth, while this could greatly increase our understanding of pathways of maladaptive personality development and how it relates to current functioning. In addition, longitudinal studies particularly could contribute to early detection of personality pathology, which is essential for improving the prognosis for these vulnerable youths (Chanen & McCutcheon, 2013; Johnson et al., 1999, 2008). This research project builds on existing research providing first evidence for precursors of personality pathology and extends it by studying maladaptive personality development with this integrative model. This provides the possibility to fill important gaps in the literature by integrating and broadening our understanding of maladaptive personality development and personality pathology, specifically, by adding narratives and by conceptualizing functioning as both criterion A and achievement of developmental milestones. We herewith hope to contribute to a valid, personal and nuanced perspective on (the development of) personality pathology in youth. This is a perspective that has great clinical utility for both diagnostic assessment as well as timely treatment interventions. With the APOLO project, we aim to enhance our knowledge on personality pathology and its development by examining the interplay between the three layers of personality over time.

We do this by taking a multimethod, multi-informant, multi-concept and longitudinal approach in a sample that ranges from early adolescents to early adults to capture the most vulnerable period for the onset of personality pathology (Shiner & Allen, 2013). We use the term youth to refer to this sample of both adolescents and early adults.

METHODS AND ANALYSIS

Patient and public involvement

The design of the APOLO research project is co-created by clinicians, experts by experience and researchers. The dimensional and developmentally sensitive design was based on the need for a personal and nuanced approach to personality pathology, a construct that is often clouded by stigma and controversies, especially in youth. The design was discussed with adolescent experts by experience, who were especially positive about this dimensional and personal perspective. This could help reduce the stigma of personality pathology and lay the focus on strengths, vulnerabilities and identity development while at the same time contributing to young people getting the help they need in time. For this reason, the APOLO project was designed with an explicit dual purpose: (1) to be used to conduct scientific research and (2) to inform the patients' individual clinical trajectory. This study is part of the 'Youthlab' program in which researchers, clinicians and both clinical and non-clinical youth work together to innovate healthcare processes as well as disseminate results in order to reach the appropriate audience (i.e., symposia, infographics, vlogs and website).

Setting

APOLO is a longitudinal two-site research project of which the design started in 2017 and data collection started mid-2018. APOLO is planned to run for at least 5 years. The research project is conducted in two mental healthcare institutes in the Netherlands: Reinier van Arkel and Vincent van Gogh. These outpatient facilities provide diagnosis and treatment to individuals with psychological, self-functioning or social functioning problems and specialize in early detection and treatment of severe psychopathology, including personality disorders. The data collection of APOLO is an integral part of the clinical process of diagnostic assessment and systematic treatment evaluation. The project is completely funded by the collaborating institutes, Reinier van Arkel, Vincent van Gogh and Utrecht University.

Participants

The research population of APOLO consists of youths between ages 12 and 24, and their parents, referred for treatment to the participating institutions with varying levels of severity and/or complexity in psychological problems. APOLO is an ongoing research project. Currently (October 2021), our sample (n=431) consists of youths (29% self-identified male) with ages ranging between 12 and 24 (M=19.3, SD=2.3). APOLO does not have strict exclusion criteria; however, data collection is limited to specific treatment programs where data collection for APOLO is conducted. In these treatment programs, adolescents and young adults with diverse types of severe psychopathology, including personality pathology, are included and treated. Patients

with other primary DSM-5 diagnoses such as intellectual disability, acute psychotic disorder, severe eating disorder or severe substance dependence are referred to other treatment programs. All adolescents and young adults that are at the start of their treatment are asked to participate. In the rare case that an adolescent is included but does not fit the research population due to a wrong referral, he or she will be excluded from follow-up assessments and reallocated to another team or institute for suitable treatment.

Procedure

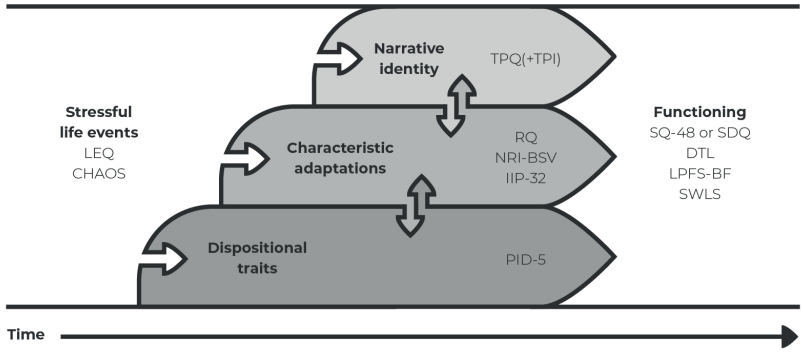
After youth are referred to one of the two specialized mental healthcare institutes and invited for intake in a team in which data collection for APOLO takes place, they—as well as their parents—receive an email with a link to fill out questionnaires online at home. This assessment is used for treatment indication as part of the diagnostic process at intake and therefore 'care as usual'. The assessment at intake consists of a total of 11 self-report questionnaires for youths (duration 45–60min) and a total of six questionnaires for one of the parents (duration 15min). Youths and parents have access to the questionnaires 3weeks prior to and after their intake appointment. Failing to fill out the questionnaires within this period results in the data for that wave being registered as missing.

Along with the invitation for their intake appointments (consisting of one appointment for intake and one for feedback and consultation, with usually 3weeks in between), youths and their parents receive an invitation to participate in APOLO. The invitation letter contains an information folder, directions to the website (www.uu.nl/onderzoek/APOLO) and an informed consent form. Youths and parents are asked to give their written informed consent for using their data anonymously for scientific research. They are also informed that they can revoke their participation at any time without any consequences and will continue to receive treatment as usual. They are asked to bring the signed consent form to the intake. All therapists conducting intakes are informed of the background and practicalities of APOLO and are trained in conducting the semi-structured interview that is part of the assessment. During the intake, participants are again informed of the research project and given the opportunity to ask questions; informed consent is (signed and) handed in, and a Turning Point Interview (TPI) (approximately 5min) is conducted and recorded on a tablet. Participants who have not yet filled out the questionnaires are given the opportunity to do so in a computer room at the institute.

Follow-up assessments are conducted every six months (counted from the date of intake) over a course of 3 years, resulting in a maximum of six waves. Participants receive the same measures (or a shortened test battery; see online supplemental ap-

pendix 1), the questionnaires online and the semi-structured interview via a face-to face or telephone appointment. Participants have access to these questionnaires 2 weeks prior to and after the intended assessment date. Since dropout is a known issue in longitudinal research and even more so in a clinical setting, the research team makes a great effort in monitoring follow-up assessments and notifying participants (first by e-mail, then if needed by phone) when their next assessment is approaching. Furthermore, to ensure participation and prevent drop out, the assessments are consistently used in the clinical process: for treatment indication at intake, as a screening tool for diagnostic assessments and for systematic treatment evaluation. Additionally, after each wave—whether or not they are still in treatment—participants are invited for a free appointment with a therapist involved with the research project in which extensive individual feedback is provided about the outcomes.

Figure 1. *Measures used in the current study embedded into the theoretical model by McAdams (2015).*



Measures

The measured variables are based on the theoretical model of personality development by McAdams (McAdams & Pals, 2006) (see figure 1). Assessment differs slightly between settings (see online supplemental appendix 1). Cronbach's alphas were calculated for each measure with data from our current sample, except where not applicable (Relationship Questionnaire (RQ), Turning Point Questionnaire (TPQ)/TPI and Life Events Questionnaire (LEQ)) or insufficient data (Confusion, Hubbub and Order Scale (CHAOS) and Strengths and Difficulties Questionnaire (SDQ)). In the latter case, Cronbach's alphas from studies with a similar sample are reported. Sample sizes that could be used to calculate Cronbach's alpha differed for each measure due to missings, differences in the test battery between waves and attrition.

Dispositional traits: *Personality Inventory for DSM-5 (PID-5)* - The Personality Inventory for DSM-5—Short Form (PID5-SF) (Maples et al., 2015) is a shortened version of the original 220-item PID5 (Krueger et al., 2012). The PID-5 is a self-report questionnaire that measures five higher order maladaptive trait domains: Negative Affectivity, Detachment, Antagonism, Disinhibition and Psychoticism, along 25 trait facets (Krueger et al., 2012). The PID-5 has been translated into Dutch according to international standards under supervision by the Dutch association for psychiatry, with backward translation by the original authors to maintain equivalence (De Clercq et al., 2014). The PID-5-SF (of which all the items are contained in the original form) measures the same five trait domains and 25 facets with 100 items on a 5-point Likert scale ranging from 'completely not true' to 'completely true'. This version was validated for use with adults (Bach et al., 2016; Maples et al., 2015) and adolescents. An overview of its psychometric properties with adolescents can be found in Koster and colleagues (Koster et al., 2020). Every trait domain consists of the three most distinctive facets with 12 items in total, and in our sample (n=416), Cronbach's alphas ranged from 0.82 to 0.90. The 25-item Personality Inventory for DSM-5—Brief Form (PID-5-BF; Krueger et al., 2013) also used in this study (see online supplemental appendix 1), is again a shortened version of the original questionnaire that measures the five trait domains with 25 items. The PID-5-BF has been shown to reliably and validly assess the DSM-5 traits in European adolescents and adults (Bach et al., 2016; Fossati et al., 2017). Every trait domain consists of five items, and in our sample (n=101), Cronbach's alphas ranged from 0.68 to 0.81. Due to differences between the items included in the PID-5-SF and PID-5-BF, participants in some cases (see online supplemental appendix 1) receive the PID-5-SF and an additional nine items of the PID-5-BF (items 1, 4, 5, 6, 7, 8, 16, 18 and 23) in order to cover all items. This is to allow for the possibility to deduct the PID-5-BF items from the PID-5-SF. Parents receive the informant version, the PID-5-IBF. Every trait domain consists of five items, and in our sample (n=187), Cronbach's alphas ranged from 0.65 to 0.82.

Characteristic adaptations: RQ - The RQ (Bartholomew & Horowitz, 1991) is a five-item self-report measure that consists of four paragraphs describing Secure, Preoccupied, Fearful and Dismissing attachment styles. Respondents are asked to first indicate which attachment style best describes them and second to rate the degree to which the four descriptions characterize them using a 7-point Likert scale, ranging from 'not at all like me' to 'very much like me'. The RQ has been shown to have reasonable validity and stability in use with young adults and undergraduates (Mikulincer & Shaver, 2010; Scharfe & Bartholomew, 1994) Results correlate moderately with attachment styles determined by interview (Bartholomew & Horowitz, 1991). The RQ provides a rapid assessment of attachment quality and has been used with adolescents (Doyle

& Markiewicz, 2005; Steinberg et al., 2006). The RQ was translated into Dutch by Lowyck et al. (2003).

Characteristic adaptations: Inventory of Interpersonal Problems-32 (IIP-32) - The IIP-32 (Horowitz et al., 2000) is a 32-item self-report questionnaire measuring interpersonal difficulties. All items are rated on a 5-point Likert scale ranging from 'not at all' to 'extremely'. The measure yields a score on two underlying dimensions: Affiliation and Dominance, as well as scores on eight subscales: Domineering/controlling, Vindictive/self-centered, Cold/distant, Socially inhibited, Non-assertive, Overly accommodating, Self-sacrificing and Intrusive/needy. As found in previous research, the IIP-32 has satisfactory reliability and validity (Barkham et al., 1996) and has been reliably administered to adolescent populations (Brown & Wright, 2003; Ho & Lau, 2011). In this research project, we use the Dutch language version (Vanheule et al., 2006). The subscales each consist of four items, and in our sample (n=426), Cronbach's alphas ranged from .63 to .81; Cronbach's alpha for the total scale was 0.87.

Characteristic adaptations: Network of Relationships Inventory–Behavioural Systems Version (NRI-BSV) - The NRI-BSV (Furman & Buhrmester, 2009) is a 24-item self-report questionnaire that measures how frequently different relationships are used to fulfil the functions of three behavioral systems: attachment, caregiving and affiliation. Items are answered on a 5-point Likert scale ranging from '(almost) never' to '(almost) always'. In previous research, the NRI-BSV has been found to have adequate psychometric properties (Furman & Buhrmester, 2009) and excellent reliability (Verbeke et al., 2017). We use an 11-item version of the NRI-BSV with which the two broad domains Support and Negative Interactions can be constructed, in which participants rate their relationship with one parent of choice and a relationship with one other important person (Furman & Buhrmester, 2009). The NRI-BSV was translated into Dutch by Van Aken and Hessels (2012). The Support subscale consists of five items (n=432, α=0.79, for both parent relationship and other relationship), and the Negative Interactions subscale consists of six items (n=432, α=0.93, for parent relationship and α=0.88 for other relationship). Parents receive the informant version, in which they rate the relationship with their child. The support subscale consists of five items (n=176, α=0.61), and the negative interaction subscale consists of six items (n=176, α=0.91).

Narrative identity: TPQ and TPI - The TPQ is a qualitative measure designed as an infographic (see online supplemental appendix 2 for the infographic). The TPQ is constructed as part of the theoretical framework of McAdams's life story model of identity (1988), which posits that one's identity is demonstrated through the construction of a life story. Facets of one's identity may be identified by analyzing how

individuals narrate significant life experiences like turning points (McLean & Breen, 2009; McLean & Pratt, 2006). Turning points are specific events that are perceived to alter the normal flow and direction of one's life (Pillemer, 2001). The TPQ asks participants if they ever experienced a life event that they might call a turning point or—if not—to pick an event that resembles a turning point. They are asked to shortly describe this event, whether they derived a lesson from this event (on a 7-point Likert scale ranging from 'not at all' to 'very much') and whether they have discussed this event with a parent/caretaker. Parents receive an informant version of the TPQ at the first wave, along with the same infographic describing what a turning point is. In this informant version, they are asked if they think their child has experienced a turning point and to shortly describe this event.

Subsequently, the TPQ is expanded with a short, semi-structured interview that is conducted by trained clinicians and recorded, the TPI. Participants are asked to narrate about this turning point and, with three follow-up questions, are asked specific details about how this event has influenced the participant. These questions are: 'What did you feel, think and want during this event?', 'Why is this an important event in your life story?' and 'Does this event say something about who you are now or how you see yourself in the future?' The narratives are transcribed and coded for theme, valence, meaning making, agency, communion and coherence (Adler, 2012; Baaijens et al., n.d.; McLean & Pratt, 2006; Reese et al., 2011).

Stressful life events: CHAOS – The CHAOS (Matheny et al., 1995) is a questionnaire that measures the quality of the youths' home environment. The questionnaire is built on the premise that youth are function and develop better/more adaptive in home environments with more order and less confusion and hubbub. In previous research, the CHAOS has been found to have satisfactory internal consistency (α=0.79), test–retest stability, as well as validity (Matheny et al., 1995). The Dutch adaptation of the CHAOS (Visser et al., 2017) used in the current research project consists of 17 items that are rated on a 5-point Likert scale ranging from 'not at all true' to 'completely true'. Only participants' parents receive this measure.

Stressful life events: LEQ - The LEQ is a self-report measure constructed out of three existing questionnaires which were combined to fit the purpose of this research project. The Life Experiences Survey (Sarason et al., 1978) was used for its structure, in which both the occurrence and the impact of specific life events is assessed. Within this structure, questions of the Childhood Trauma Questionnaire (Bernstein et al., 2011; Bogaerts et al., 2011) and the Levensgebeurtenissen Vragenlijst (a Dutch life events survey; Garnefski & Kraaij 2001) were combined. The LEQ we used in this research project consists of 12 items that cover stressful life events in the family, per-

sonal experiences and bullying, and one open item that asks the participant for any stressful event not covered by the items before. The 12 questions consist of two parts: first, the adolescent is asked to indicate whether (yes or no) he/she has experienced the event during his/her lifetime and, second, to indicate how much (on a 4-point Likert scale ranging from +1, 'positively', to –3, 'very negatively') this event impacted his/her life. In all follow-up waves, participants are asked whether they have experienced the events since the last wave.

Functioning and symptoms: Symptom Questionnaire-48 (SQ-48) and SDQ - Within the domain of functioning, two questionnaires are used to assess symptoms (see online supplemental appendix 1 for details). The SQ-48 (Carlier et al., 2012) is a self-report questionnaire measuring psychological distress with nine subdomains: depression (six items), anxiety (six items), somatization (seven items), agoraphobia (four items), aggression (four items), cognitive problems (five items), social phobia (five items), work functioning (five items) and vitality (six items). All items are rated on a 5-point Likert scale ranging from 'never' to 'very often'. The SQ-48 has good internal consistency as well as good convergent and divergent validity (Carlier et al., 2012). An additional study showed that the SQ-48 has excellent test–retest reliability and good responsiveness to therapeutic change (I. V. E. Carlier et al., 2017). In our sample (n=389), Cronbach's alphas ranged from 0.74 to 0.92 for the subscales and was 0.94 for the total scale.

The SDQ (Goodman, 1997, 1999) is a 25-item questionnaire that measures psychopathological symptoms in children and adolescents with five subdomains, containing five items each: emotional symptoms, conduct problems, hyperactivity– inattention, peer relationship problems and prosocial behaviors. All items are rated on a 3-point Likert scale ranging from 'not true' to 'certainly true'. In APOLO, the Dutch translation of the SDQ is used, which has been found to have good concurrent validity (Muris et al., 2003; van Widenfelt et al., 2003). For the self-report version, Cronbach's alphas in a study using a similar sample ranged from 0.45 to 0.72 for the subscales and were 0.78 for the total scale. For the parent version, Cronbach's alphas ranged from 0.55 to 0.78 for the subscales and was 0.80 for the total scale (Muris et al., 2003).

Functioning: Developmental Milestones List (DML) - Achievement of youth-specific milestones was assessed using a newly developed measure: the DML (Laceulle et al., n.d.) The DML is a 28-item questionnaire including tasks and activities reflective of youth-specific developmental milestones. The first 21 items of this list ask, on a 7-point Likert scale, to what extent the participant experiences trouble in the achievement of youth-specific milestones. These items combine to a total scale. The specific milestones may be divided in three broader domains based on previous work

on youth-specific milestones (Spanjaard & Slot, 2015: social (e.g., relationships with peers), personal (e.g., autonomy) and professional (e.g., school/work). The last seven items of this list were included specifically for (our) clinical populations, providing an indication, on a 4-point Likert scale, of clinical severity that may hamper the achievement of milestones (e.g., problems in accepting help, auto-mutilation and drug abuse). In our sample (n=426), Cronbach's alpha for the total scale was 0.78. Parents receive an informant version of the DML. In our sample (n=179), Cronbach's alpha for all items was 0.88.

Functioning: Level of Personality Functioning Scale–Brief Form (LPFS-BF) - The LPFS-BF (Hutsebaut et al., 2016) was developed as an easy-to-use tool to self-assess whether particular problems were likely related to personality dysfunction. It is a measure of self-functioning and interpersonal functioning, as an operationalization of global personality functioning (Bender et al., 2011). The LPFS-BF consists of 12 questions which are clustered into four subscales (identity, self-direction, empathy and intimacy). These subscales are clustered into two higher domains, self-functioning and interpersonal functioning. Participants respond to these questions on a 4-point Likert scale ranging from 'not at all true or often untrue' to 'often true or completely true'. In our sample (n=421), Cronbach's alpha was 0.74 for the self-functioning subscale, 0.71 for the interpersonal functioning subscale and 0.79 for the total scale.

Functioning: Satisfaction With Life Scale (SWLS) - The SWLS (Diener et al., 1985) contains five items to measure global judgments of satisfaction with one's life. We use the Dutch translation of the SWLS (Desmyter et al., 2012). Items are scored on a 7-point Likert scale (1=strongly disagree, 7=strongly agree). The five items are summed. In our sample (n=424), Cronbach's alpha for the total scale was 0.80.

Research questions, power calculation and data handling

This project has the overarching aim to examine the interplay between the three layers of personality development, as proposed by McAdams and colleagues, in an clinical sample of youth and how this interplay is related to (personality) functioning. Specifically, the two primary research questions are as follows: (1) is there evidence for unique or distinctive (group) patterns in which characteristics from McAdams' layered model of personality development are related in a clinical sample of youth? and (2) how are distinctive patterns related to trajectories of change in functioning? Characteristics of McAdams model are operationalized as maladaptive personality traits (dispositional traits, layer 1), attachment, interpersonal style, social network, experienced life events (characteristic adaptations, layer 2) and turning point narratives (narrative identity, layer 3). Functioning is operationalized as the achievement of developmental milestones, self- and interpersonal functioning, satisfaction with life and psychopathologi-

cal symptoms. Characteristics in the first two layers of McAdams' model have often been identified as precursors of personality pathology in previous studies. Distinctive group patterns in how these characteristics transact as a symphonic structure will be explored cross-sectionally using Latent Class Modelling in Latent Gold (Quas et al., 2014). Testing across level and longitudinal associations in the three layers and functioning will be done using structural equation modelling (SEM) in M-Plus. Due to the large number of constructs in the complete model, specific associations between different layers will be tested separately to ensure adequate power and avoid the problem of multiple testing (Bühler et al., 2021). For example, one study will focus on whether and how the predictive association between maladaptive personality traits (layer 1) and agency and communion in narratives (layer 3) is moderated or mediated by interpersonal style (layer 2). Power was considered for these primary research questions, and based on both simulations and rules of thumb of the power needed to analyze complex SEM models with multiple variables and missing data, a sample size of >300 complete cases should be adequate (Kyriazos, 2018; Wolf et al., 2013). To analyze latent classes, considering the assumed class separation, effect size and complexity of the data, a sample size of >500 is suggested (Gudicha et al., 2016; Kent et al., 2014). In the case of data difficulties like measurement non-invariance or differential item functioning, which may be likely in a clinical data set with multiple variables, this technique is also suitable (Vermunt & Magidson, 2021). For our primary research questions, we hypothesize that there will be distinctive group patterns that may point to individuals with more or less pronounced vulnerability profiles. We expect that a more vulnerable profile will be associated with a less adaptive developmental course in terms of personality functioning. However, meaning making (reflected by narrative identity, layer 3) may play a moderating or mediating role. Secondary research questions will address concurrent and longitudinal associations in McAdams' model piece by piece: between precursors, the social network, the narrative identity and specifically criteria A and B of the AMPD. For example, one study will focus on the association between self-event connections (layer 3) and personality functioning over time, controlling for negative affectivity (layer 1) in a regression model. Another study will focus on transactions between maladaptive personality traits (layer 1) and the social network (layer 2) using a random intercept cross lagged panel model. A cooperation was set up with the data laboratory of Utrecht University to store the data that were collected at all locations (Yoda, 2021). This ensures reliable and secure data management while data collection is ongoing.

ETHICS AND DISSEMINATION

APOLO combines a longitudinal scientific study and clinical implementation of a multilayered dimensional model of maladaptive personality development in an outpatient clinical adolescent sample. APOLO measures several constructs according to three-layered model of personality development, taking a multimethod, multi-concept and multi-informant approach. The data collection and handling are set up in such a way that it (1) provides the opportunity to study important scientific questions concerning pathways of maladaptive personality development and (2) informs the individual clinical process, providing patients with a direct benefit of completing the measures. As such, this project is inevitably faced with challenges, of which attrition and the balance between ensuring an anonymous and scientifically sound longitudinal data set while also making appropriate use of the data for individual clinical trajectories are the most prominent. The embedding of this project in the clinical structure is therefore an essential but also unique feature on which a lot of effort and time are spent. Cooperation between the different clinical sites is a challenge that is approached flexibly to ensure clinical embedment and to prevent attrition, resulting in slight differences between the number and type of instruments included. Furthermore, recruitment of all youths referred to the involved institutes reduces the occurrence of selection bias of participants as well as increases the generalizability of findings to the clinical adolescent population. In addition, the inclusion of narrative identity allows for a unique and in-depth understanding of how (mal)adaptive personality development 'colors' one's subjective experience and meaning making.

The planned dissemination is twofold: first, for the scientific field, the output of this research project will enhance our understanding of maladaptive personality development as a complex phenomenon in which both structural personal characteristics as well as unique individual experiences play an important role. These results will be presented at congresses and published in international peer-reviewed journals, along with proposed directions for future studies. Second, for the clinical field, the results will be made available to clinicians in newsletters and national journals, used to inform workshops and trainings and—for both clinicians, other professionals and youth—integrated in infographics, fact sheets and social media posts to provide information about maladaptive personality development and inform early detection and timely interventions.

LIST OF ABBREVIATIONS

APOLO: *Adolescenten en hun persoonlijkheidsontwikkeling: een longitudinaal onderzoek*. Dutch acronym meaning: Adolescents and their personality development: a longitudinal study
PID-5: Personality Inventory for DSM-5
PID-5-SF: Personality Inventory for DSM-5 – Short Form
PID-5-BF: Personality Inventory for DSM-5 – Brief Form
PID-5-IBF: Personality Inventory for DSM-5 – Informant Brief Form
RQ: Relationship Questionnaire
IIP-32: Inventory of Interpersonal Problems-32
NRI-BSV: Network of Relationships Inventory – Behavioral Systems Version
TPQ: Turning Point Questionnaire
TPI: Turning Point Interview
CHAOS: Confusion, Hubbub, and Order Scale
LEQ: Life Events Questionnaire
LES: Life Experiences Survey
CTQ: Childhood Trauma Questionnaire
SQ-48: Symptom Questionnaire-48
SDQ: Strengths and Difficulties Questionnaire
DML: Developmental Milestones List
LPFS-BF: Level of Personality Functioning Scale – Brief Form
SWLS: Satisfaction With Life Scale

REFERENCES

Adler, J. M. (2012). Living into the story: Agency and coherence in a longitudinal study of narrative identity development and mental health over the course of psychotherapy. *Journal of Personality and Social Psychology*, *102*(2), 367–389. https://doi.org/10.1037/a0025289

Adler, J. M., Chin, E. D., Kolisetty, A. P., & Oltmanns, T. F. (2012). The Distinguishing Characteristics of Narrative Identity in Adults with Features of Borderline Personality Disorder: An Empirical Investigation. *Journal of Personality Disorders*, *26*(4), 498–512. https://doi.org/10.1521/pedi.2012.26.4.498

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

Asendorpf, J. B., & Van Aken, M. A. G. (2003). Personality-Relationship Transaction in Adolescence: Core Versus Surface Personality Characteristics: Core Versus Surface. *Journal of Personality*, *71*(4), 629–666. https://doi.org/10.1111/1467-6494.7104005

Baaijens, B., Koster, N., Van Aken, M.A.G., P., Van der Heijden, P.T., & Laceulle, O.M. (n.d.) Narrative identity and personality pathology: an exploration of associations from a dimensional and categorical perspective in a clinical sample of youth. *Submitted to Journal of Personality Disorders: Theory, Research, and Treatment.*

Bach, B., Maples-Keller, J. L., Bo, S., & Simonsen, E. (2016). The alternative DSM–5 personality disorder traits criterion: A comparative examination of three self-report forms in a Danish population. *Personality Disorders: Theory, Research, and Treatment*, *7*(2), 124–135. https://doi.org/10.1037/per0000162

Barkham, M., Hardy, G. E., & Startup, M. (1996). The IIP-32: A short version of the Inventory of Interpersonal Problems. *British Journal of Clinical Psychology*, *35*(1), 21–35. https://doi.org/10.1111/j.2044-8260.1996.tb01159.x

Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: a test of a four-category model. *Journal of personality and social psychology*, *61*(2), 226.

Beauchaine, T. P., Klein, D. N., Crowell, S. E., Derbidge, C., & Gatzke-Kopp, L. (2009). Multifinality in the development of personality disorders: A Biology × Sex × Environment interaction model of antisocial and borderline traits. *Development and Psychopathology*, *21*(3), 735–770. https://doi.org/10.1017/S0954579409000418

Bender, D. S., Morey, L. C., & Skodol, A. E. (2011). Toward a Model for Assessing Level of Personality Functioning in *DSM–5* , Part I: A Review of Theory and Methods. *Journal of Personality Assessment*, *93*(4), 332–346. https://doi.org/10.1080/00223891.2011.583808

Bernstein, D. P., Fink, L., Handelsman, L., & Foote, J. (2011). *Childhood Trauma Questionnaire*. American Psychological Association. https://doi.org/10.1037/t02080-000

Bogaerts, S., Daalder, A. L., Spreen, M., Van der Knaap, L. M., & Henrichs, J. (2011). Factor Structure of the Dutch Version of the Childhood Trauma Questionnaire-SF among Female Sex Workers in the Netherlands. *Journal of Forensic Psychology Practice*, *11*(5), 432–442. https://doi.org/10.1080/15228932.2011.588926

Brown, L. S., & Wright, J. (2003). The relationship between attachment strategies and psychopathology in adolescence. *Psychology and Psychotherapy: Theory, Research and Practice*, *76*(4), 351–367. https://doi.org/10.1348/147608303770584728

Bühler, J., Weidmann, R., & Grob, A. (2021). The actor, agent, and author across the life span: Interrelations between personality traits, life goals, and life narratives in an age-heterogeneous sample. *European Journal of Personality*, *35*(2), 168–196. https://doi.org/10.1002/per.2275

Carlier, I., Schulte-Van Maaren, Y., Wardenaar, K., Giltay, E., Van Noorden, M., Vergeer, P., & Zitman, F. (2012). Development and validation of the 48-item Symptom Questionnaire (SQ-48) in patients with depressive, anxiety and somatoform disorders. *Psychiatry Research*, *200*(2–3), 904–910. https://doi.org/10.1016/j.psychres.2012.07.035

Carlier, I. V. E., Kovács, V., van Noorden, M. S., van der Feltz-Cornelis, C., Mooij, N., Schulte-van Maaren, Y. W. M., van Hemert, A. M., Zitman, F. G., & Giltay, E. J. (2017). Evaluating the Responsiveness to Therapeutic Change with Routine Outcome Monitoring: A Comparison of the Symptom Questionnaire-48 (SQ-48) with the Brief Symptom Inventory (BSI) and the Outcome Questionnaire-45 (OQ-45): Evaluating Responsiveness to Therapeutic Change with Outcome Monitoring. *Clinical Psychology & Psychotherapy*, *24*(1), 61–71. https://doi.org/10.1002/cpp.1978

Chanen, A. M., & McCutcheon, L. (2013). Prevention and early intervention for borderline personality disorder: Current status and recent evidence. *British Journal of Psychiatry*, *202*(s54), s24–s29. https://doi.org/10.1192/bjp.bp.112.119180

Day, A., & Bryan, J. (2007). Personality change and personality disorder: Some initial thoughts on the application of McAdams' triarchic model to the treatment of personality disorder. *Psychology, Crime & Law*, *13*(1), 19–26. https://doi.org/10.1080/10683160600869692

De Clercq, B., De Fruyt, F., De Bolle, M., Van Hiel, A., Markon, K. E., & Krueger, R. F. (2014). The Hierarchical Structure and Construct Validity of the PID-5 Trait Measure in Adolescence: DSM-5 Trait Structure in Adolescents. *Journal of Personality*, *82*(2), 158–169. https://doi.org/10.1111/jopy.12042

Desmyter, F., & De Raedt, R. (2012). The relationship between time perspective and subjective well-being of older adults. *Psychologica Belgica, 52*(1), 19-38.

Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of personality assessment*, *49*(1), 71-75.

Doyle, A. B., & Markiewicz, D. (2005). Parenting, Marital Conflict and Adjustment From Early- to Mid-Adolescence: Mediated by Adolescent Attachment Style? *Journal of Youth and Adolescence*, *34*(2), 97–110. https://doi.org/10.1007/s10964-005-3209-7

Fossati, A., Somma, A., Borroni, S., Markon, K. E., & Krueger, R. F. (2017). The Personality Inventory for *DSM-5* Brief Form: Evidence for Reliability and Construct Validity in a Sample of Community-Dwelling Italian Adolescents. *Assessment*, *24*(5), 615–631. https://doi.org/10.1177/1073191115621793

Furman, W., & Buhrmester, D. (2009). Methods and Measures: The Network of Relationships Inventory: Behavioral Systems Version. *International Journal of Behavioral Development*, *33*(5), 470–478. https://doi.org/10.1177/0165025409342634

Garnefski, N., & Kraaij, V. (2001). Levensgebeurtenissen vragenlijst. Leiden: Universiteit Leiden.

Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A Research Note. *Journal of Child Psychology and Psychiatry*, *38*(5), 581–586. https://doi.org/10.1111/j.1469-7610.1997.tb01545.x

Goodman, R. (1999). The Extended Version of the Strengths and Difficulties Questionnaire as a Guide to Child Psychiatric Caseness and Consequent Burden. *Journal of Child Psychology and Psychiatry*, *40*(5), 791–799. https://doi.org/10.1111/1469-7610.00494

Gudicha, D. W., Tekle, F. B., & Vermunt, J. K. (2016). Power and Sample Size Computation for Wald Tests in Latent Class Models. *Journal of Classification*, *33*(1), 30–51. https://doi.org/10.1007/s00357-016-9199-1

Henry, S., & Mõttus, R. (2020). Traits and Adaptations: A Theoretical Examination and New Empirical Evidence. *European Journal of Personality*, *34*(3), 265–284. https://doi.org/10.1002/per.2248

Ho, L. Y., & Lau, A. S. (2011). Do self-report measures of social anxiety reflect cultural bias or real difficulties for Asian American college students? *Cultural Diversity and Ethnic Minority Psychology*, *17*(1), 52–58. https://doi.org/10.1037/a0022533

Hopwood, C. J., Kotov, R., Krueger, R. F., Watson, D., Widiger, T. A., Althoff, R. R., Ansell, E. B., Bach, B., Michael Bagby, R., Blais, M. A., Bornovalova, M. A., Chmielewski, M., Cicero, D. C., Conway, C., De Clercq, B., De Fruyt, F., Docherty, A. R., Eaton, N. R., Edens, J. F., … Zimmermann, J. (2018). The time has come for dimensional personality disorder diagnosis: The time has come for dimensional personality disorder diagnosis. *Personality and Mental Health*, *12*(1), 82–86. https://doi.org/10.1002/pmh.1408

Horowitz L. M., Alden, L.E., Wiggins, J.S., & Pincus, A.L. (2000). *IIP-64/IIP-32 professional manual*. San Antonio, TX: Psychological Corporation.

Hutsebaut, J., Feenstra, D. J., & Kamphuis, J. H. (2016). Development and Preliminary Psychometric Evaluation of a Brief Self-Report Questionnaire for the Assessment of the DSM–5 level of Personality Functioning Scale: The LPFS Brief Form (LPFS-BF). *Personality Disorders: Theory, Research, and Treatment*, *7*(2), 192–197. https://doi.org/10.1037/per0000159

Johnson, J. G., Bromley, M., & McGeoch, M. A. (2005). Role of Childhood Experiences in the Development of Maladaptive and Adaptive Personality Traits. In J.M. Oldham, A.E. Skodol, & D.S. Bender (Eds). T*extbook of personality disorders*. Arlington: The American Psychiatric Publishing, p. 209-221.

Johnson, J. G., Cohen, P., Kasen, S., Skodol, A. E., & Oldham, J. M. (2008). Cumulative prevalence of personality disorders between adolescence and adulthood. *Acta Psychiatrica Scandinavica*, *118*(5), 410–413. https://doi.org/10.1111/j.1600-0447.2008.01231.x

Johnson, J. G., Cohen, P., Skodol, A. E., Oldham, J. M., Kasen, S., & Brook, J. S. (1999). Personality Disorders in Adolescence and Risk of Major Mental Disorders and Suicidality During Adulthood. *Archives of General Psychiatry*, *56*(9), 805. https://doi.org/10.1001/archpsyc.56.9.805

Kent, P., Jensen, R. K., & Kongsted, A. (2014). A comparison of three clustering methods for finding subgroups in MRI, SMS or clinical data: SPSS TwoStep Cluster analysis, Latent Gold and SNOB. *BMC Medical Research Methodology*, *14*(1), 113. https://doi.org/10.1186/1471-2288-14-113

Koster, N., Laceulle, O. M., Van der Heijden, P. T., Klimstra, T., De Clercq, B., Verbeke, L., De Caluwé, E. A. L., & Van Aken, M. A. G. (2020). A Psychometric Evaluation of a Reduced Version of the PID-5 in Clinical and Non-Clinical Adolescents. *European Journal of Psychological Assessment*, *36*(5), 758–766. https://doi.org/10.1027/1015-5759/a000552

Krueger, R. F., Derringer, J., Markon, K. E., Watson, D., & Skodol, A. E. (2012). Initial construction of a maladaptive personality trait model and inventory for DSM-5. *Psychological Medicine*, *42*(9), 1879–1890. https://doi.org/10.1017/S0033291711002674

Kyriazos, T. A. (2018). Applied Psychometrics: Sample Size and Sample Power Considerations in Factor Analysis (EFA, CFA) and SEM in General. *Psychology*, *09*(08), 2207–2230. https://doi.org/10.4236/psych.2018.98126

Laceulle, O.M., Koster, N., Van der Heijden, P.T., & Van Aken, M.A.G., (n.d.). Measuring the achievement of youth-specific milestones: The Developmental Milestones List.

Laceulle, O. M., & van Aken, M. A. G. (2018). Transactions of Personality and the Social Environment During Development. In V. Zeigler-Hill & T. Shackelford, *The SAGE Handbook of Personality and Individual Differences: Volume II: Origins of Personality and Individual Differences* (pp. 241–258). SAGE Publications Ltd. https://doi.org/10.4135/9781526451200.n14

Lind, M., Vanwoerden, S., Penner, F., & Sharp, C. (2019). Inpatient adolescents with borderline personality disorder features: Identity diffusion and narrative incoherence. *Personality Disorders: Theory, Research, and Treatment*, *10*(4), 389–393. https://doi.org/10.1037/per0000338

Lowyck, B., Luyten, P., Hutsebaut, J., Corveleyn, J. (2003). De relatievragenlijst van Bartholomew & Horowitz. Center for Psychoanalysis and Psychodynamic Psychology (KU Leuven), Leuven

Maples, J. L., Carter, N. T., Crego, C., Gore, W. L., Williamson, R. L., Widiger, T. A., & Krueger, R. F. (2015). *Testing Whether the DSM-5 Personality Disorder Trait Model Can Be Measured With a Reduced Set of Items: An Item Response Theory Investigation of the Personality Inventory for DSM-5*.

Markon, K. E., Krueger, R. F., & Watson, D. (2005). Delineating the Structure of Normal and Abnormal Personality: An Integrative Hierarchical Approach. *Journal of Personality and Social Psychology*, *88*(1), 139–157. https://doi.org/10.1037/0022-3514.88.1.139

Matheny, A. P., Wachs, T. D., Ludwig, J. L., & Phillips, K. (1995). Bringing order out of chaos: Psychometric characteristics of the confusion, hubbub, and order scale. *Journal of Applied Developmental Psychology*, *16*(3), 429–444. https://doi.org/10.1016/0193-3973(95)90028-4

McAdams, D. P. (1988). *Power, intimacy, and the life story: Personological inquiries into identity*. Guilford press

McAdams, D. P. (2015). *The art and science of personality development*. Guilford Publications

McAdams, D. P., & McLean, K. C. (2013). Narrative Identity. *Current Directions in Psychological Science*, *22*(3), 233–238. https://doi.org/10.1177/0963721413475622

McAdams, D. P., & Olson, B. D. (2010). Personality Development: Continuity and Change Over the Life Course. *Annual Review of Psychology*, *61*(1), 517–542. https://doi.org/10.1146/annurev.psych.093008.100507

McAdams, D. P., & Pals, J. L. (2006). A new Big Five: Fundamental principles for an integrative science of personality. *American Psychologist*, *61*(3), 204–217. https://doi.org/10.1037/0003-066X.61.3.204

McAdams, D. P., Shiner, R. L., & Tackett, J. L. (Eds.). (2018). *Handbook of personality development*. Guilford Publications.

McCrae, R. R., & Costa, P. T. (2021). Understanding persons: From Stern's personalistics to Five-Factor Theory. *Personality and Individual Differences*, *169*, 109816. https://doi.org/10.1016/j.paid.2020.109816

McLean, K. C., & Breen, A. V. (2009). Processes and content of narrative identity development in adolescence: Gender and well-being. *Developmental Psychology*, *45*(3), 702–710. https://doi.org/10.1037/a0015207

McLean, K. C., & Pratt, M. W. (2006). Life's little (and big) lessons: Identity statuses and meaning-making in the turning point narratives of emerging adults. *Developmental Psychology*, *42*(4), 714–722. https://doi.org/10.1037/0012-1649.42.4.714

Mikulincer, M., & Shaver, P. R. (2010). *Attachment in adulthood: Structure, dynamics, and change*. Guilford Publications.

Mulay, A. L., Cain, N. M., Waugh, M. H., Hopwood, C. J., Adler, J. M., Garcia, D. J., Kurtz, J. E., Lenger, K. A., & Skadberg, R. (2018). Personality Constructs and Paradigms in the Alternative *DSM-5* Model of Personality Disorder. *Journal of Personality Assessment*, *100*(6), 593–602. https://doi.org/10.1080/00223891.2018.1477787

Muris, P., Meesters, C., & van den Berg, F. (2003). The Strengths and Difficulties Questionnaire (SDQ). *European Child & Adolescent Psychiatry*, *12*(1), 1–8. https://doi.org/10.1007/s00787-003-0298-2

Pillemer, D. B. (2001). Momentous Events and the Life Story. *Review of General Psychology*, *5*(2), 123–134. https://doi.org/10.1037/1089-2680.5.2.123

Pincus, A. L., & Roche, M. J. (2019). Paradigms of Personality Assessment and Level of Personality Functioning in Criterion a of the AMPD. In *The DSM-5 Alternative Model for Personality Disorders* (pp. 48-59). Routledge. https://journals.sagepub.com/doi/pdf/10.1177/1745691612464657

Quas, J. A., Yim, I. S., Oberlander, T. F., Nordstokke, D., Essex, M. J., Armstrong, J. M., Bush, N., Obradović, J., & Boyce, W. T. (2014). The symphonic structure of childhood stress reactivity: Patterns of sympathetic, parasympathetic, and adrenocortical responses to psychological challenge. *Development and Psychopathology*, *26*(4pt1), 963–982. https://doi.org/10.1017/S0954579414000480

Reese, E., Haden, C. A., Baker-Ward, L., Bauer, P., Fivush, R., & Ornstein, P. A. (2011). Coherence of Personal Narratives Across the Lifespan: A Multidimensional Model and Coding Method. *Journal of Cognition and Development*, *12*(4), 424–462. https://doi.org/10.1080/15248372.2011.587854

Sarason, I. G., Johnson, J. H., & Siegel, J. M. (1978). Assessing the impact of life changes: Development of the Life Experiences Survey. *Journal of Consulting and Clinical Psychology*, *46*(5), 932–946. https://doi.org/10.1037/0022-006X.46.5.932

Scharfe, E., & Bartholomew, K. (1994). Reliability and stability of adult attachment patterns. *Personal Relationships*, *1*(1), 23–43. https://doi.org/10.1111/j.1475-6811.1994.tb00053.x

Sharp, C., Pane, H., Ha, C., Venta, A., Patel, A. B., Sturek, J., & Fonagy, P. (2011). Theory of Mind and Emotion Regulation Difficulties in Adolescents With Borderline Traits. *Journal of the American Academy of Child & Adolescent Psychiatry*, *50*(6), 563-573.e1. https://doi.org/10.1016/j.jaac.2011.01.017

Sharp, C., & Wall, K. (2018). Personality pathology grows up: Adolescence as a sensitive period. *Current Opinion in Psychology*, *21*, 111–116. https://doi.org/10.1016/j.copsyc.2017.11.010

Shiner, R. L. (2009). The development of personality disorders: Perspectives from normal personality development in childhood and adolescence. *Development and Psychopathology*, *21*(3), 715–734. https://doi.org/10.1017/S0954579409000406

Shiner, R. L., & Allen, T. A. (2013). Assessing personality disorders in adolescents: Seven guiding principles. *Clinical Psychology: Science and Practice*, *20*(4), 361–377. https://doi.org/10.1111/cpsp.12047

Spanjaard, H., & Slot, W., (2015). Tijden veranderen, ontwikkelingstaken ook. *Kind & Adolescent*, *14*(3), 14-21.

Steinberg, S. J., Davila, J., & Fincham, F. (2006). Adolescent Marital Expectations and Romantic Experiences: Associations With Perceptions About Parental Conflict and Adolescent Attachment Security. *Journal of Youth and Adolescence*, *35*(3), 314–329. https://doi.org/10.1007/s10964-006-9042-9

Van Aken MAG, Hessels C. Nederlandse vertaling van de Network of Relationships Inventory—Behavioral System Version. Utrecht: Ontwikkelingspsychologie, UU. 2012.

Van Widenfelt, B. M., Goedhart, A. W., Treffers, P. D. A., & Goodman, R. (2003). Dutch

version of the Strengths and Difficulties Questionnaire (SDQ). *European Child & Adolescent Psychiatry*, *12*(6), 281–289. https://doi.org/10.1007/s00787-003-0341-3

Vanheule, S., Adriaens, P., Bazan, A., Bracke, P., Devisch, I., Feys, J.-L., Froyen, B., Gerard, S., Nieman, D. H., Van Os, J., & Calmeyn, M. (2019). Belgian Superior Health Council advises against the use of the DSM categories. *The Lancet Psychiatry*, *6*(9), 726. https://doi.org/10.1016/S2215-0366(19)30284-6

Vanheule, S., Desmet, M., & Rosseel, Y. (2006). The factorial structure of the Dutch translation of the Inventory of Interpersonal Problems: A test of the long and short versions. *Psychological Assessment*, *18*(1), 112–117. https://doi.org/10.1037/1040-3590.18.1.112

Verbeke, L., De Clercq, B., Van der Heijden, P., Hutsebaut, J., & van Aken, M. A. G. (2017). The relevance of schizotypal traits for understanding interpersonal functioning in adolescents with psychiatric problems. *Personality Disorders: Theory, Research, and Treatment*, *8*(1), 54–63. https://doi.org/10.1037/per0000163

Vermunt, J. K., & Magidson, J. (2021). How to Perform Three-Step Latent Class Analysis in the Presence of Measurement Non-Invariance or Differential Item Functioning. *Structural Equation Modeling: A Multidisciplinary Journal*, *28*(3), 356–364. https://doi.org/10.1080/10705511.2020.1818084

Visser, M. M., Van Delft, I., Schoemaker, K., De Schipper, J.C., Finkenauer, C., Academische werkplaats kindermishandeling: De wetenschappelijke resultaten en praktische adviezen. Available from: http://download.ogc.nl/epub/05a4d1ef-8141-487d-a122-a0c4d141bcd7/m.visser.pdf

Westen, D., & Chang, C. (2000). Personality pathology in adolescence: A review. In A. H. Esman, L. T. Flaherty, & H. A. Horowitz (Eds.), *Adolescent psychiatry: Developmental and clinical studies,* Vol. 25, pp. 61–100). Analytic Press.

Widiger, T. A., & Simonsen, E. (2005). Alternative Dimensional Models of Personality Disorder: Finding a Common Ground. *Journal of Personality Disorders*, *19*(2), 110–130. https://doi.org/10.1521/pedi.19.2.110.62628

Wolf, E. J., Harrington, K. M., Clark, S. L., & Miller, M. W. (2013). Sample Size Requirements for Structural Equation Models: An Evaluation of Power, Bias, and Solution Propriety. *Educational and Psychological Measurement*, *73*(6), 913–934. https://doi.org/10.1177/0013164413495237

Wolke, D., Schreier, A., Zanarini, M. C., & Winsper, C. (2012). Bullied by peers in childhood and borderline personality symptoms at 11 years of age: A prospective study: Peer victimisation and borderline personality disorder symptoms. *Journal of Child Psychology and Psychiatry*, *53*(8), 846–855. https://doi.org/10.1111/j.1469-7610.2012.02542.x

Wright, A. G. C., Hopwood, C. J., Skodol, A. E., & Morey, L. C. (2016). Longitudinal validation of general and specific structural features of personality pathology. *Journal of Abnormal Psychology*, *125*(8), 1120–1134. https://doi.org/10.1037/abn0000165

Yoda – A data management service. https://www.uu.nl/en/research/yoda. Accessed 9 March 2021

SUPPLEMENTARY MATERIAL

Appendix 1: Overview of APOLO

Table 1. *Overview of measures used per wave and setting*

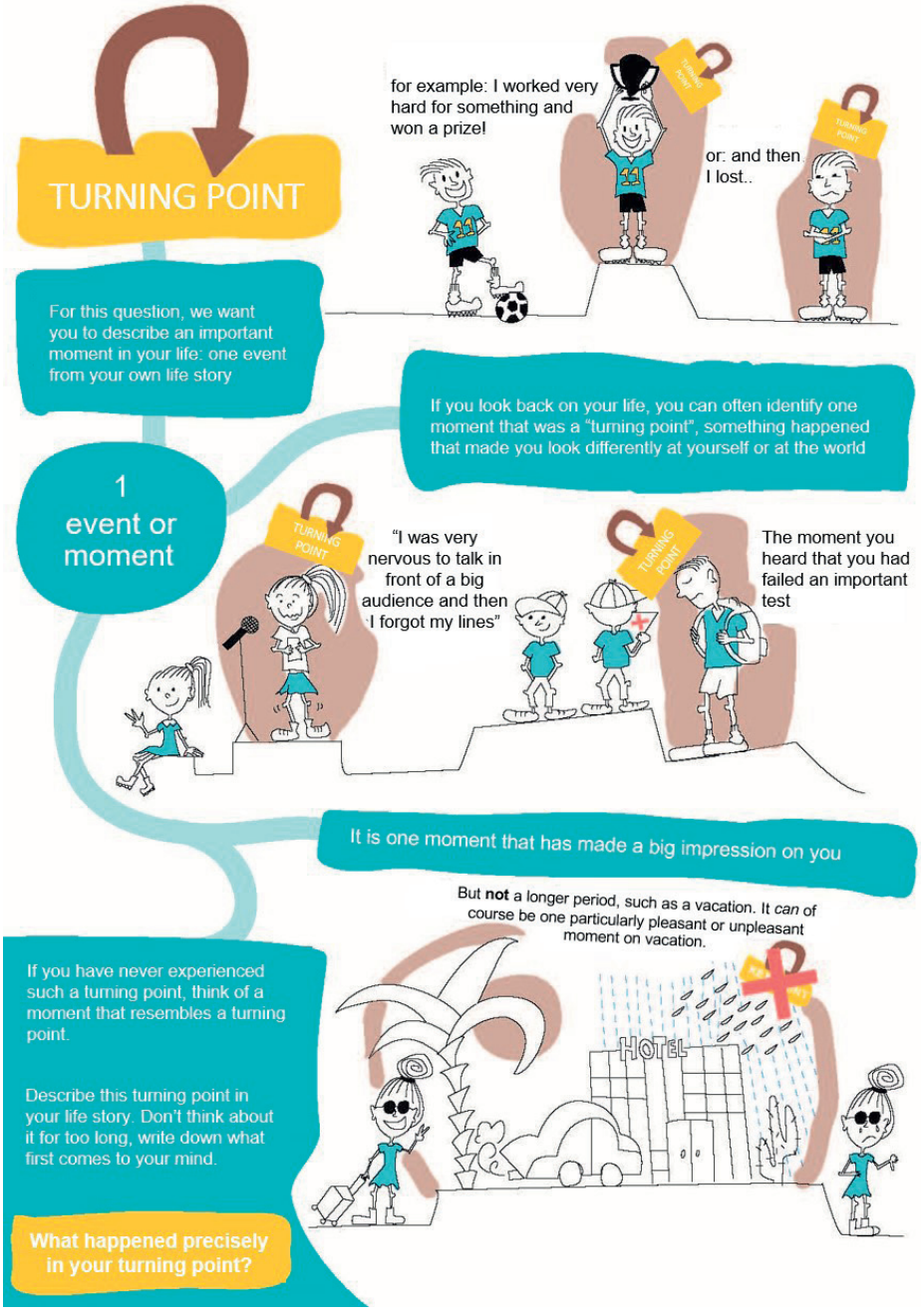
Setting	Respondent	Measures					
		T1 (intake)	T2 (6 months)	T3 (12 months)	T4 (18 months)	T5 (24 months)	T6 (30 months)
Reinier van Arkel: Centre for Adolescent Psychiatry	Participant	PID-5-SF + extra	PID-5-BF	*T1*	*T2*	*T1*	*T2*
		RQ	RQ				
		IIP-32	IIP-32				
		NRI-BSV	NRI-BSV				
		TPQ(+TPI)	TPQ(+TPI)				
		LEQ	LEQ2-6				
		SQ-48	SQ-48				
		DML	DML				
		LPFS-BF	LPFS-BF				
		SWLS	SWLS				
	Parent	PID-5-IBF	PID-5-IBF	*T2*	*T2*	*T2*	*T2*
		RQ	RQ				
		CHAOS	CHAOS				
		TPQ	DML				
		DML					
Reinier van Arkel: Herlaarhof	Participant	PID-5-BF	PID-5-BF	*T2*	*T2*	*T2*	*T2*
		RQ	RQ				
		NRI-BSV	NRI-BSV				
		LEQ	LEQ2-6				
		SDQ	SDQ				
		DML	DML				
		LPFS-BF	LPFS-BF				
		SWLS (item 3)	SWLS (item 3)				

Table 1. *Overview of measures used per wave and setting Continue*

Setting	Respondent	Measures					
		T1 (intake)	**T2 (6 months)**	**T3 (12 months)**	**T4 (18 months)**	**T5 (24 months)**	**T6 (30 months)**
	Parent	PID-5-IBF RQ CHAOS SDQ DML	*T1*	*T1*	*T1*	*T1*	*T1*
Vincent van Gogh: Heldr	Participant	PID-5-SF RQ IIP-32 NRI-BSV TPQ(+TPI) LEQ DML LPFS-BF SWLS SDQ	PID-5-SF RQ IIP-32 NRI-BSV TPQ LEQ DML LPFS-BF SWLS SDQ	*T2*	*T2*	*T2*	*T2*
	Parent	PID-5-IBF RQ TPQ DML	PID-5-IBF RQ DML	*T2*	*T2*	*T2*	*T2*

Appendix 2: Infographic

Figure 1. *The infographic that was used to explain the concept of a turning point to participants*



Note. The original infographic was in Dutch. The English translation was created for the purpose of this manuscript and was not used in the APOLO study

Publication:

A revised version of the manuscript published in this dissertation is now accepted for publication:
Baaijens, B., Koster, N., Van Aken, M.A.G., P., Van der Heijden, P.T., & Laceulle, O.M. (2023). Narrative identity characteristics and personality pathology: an exploration of associations from a dimensional and categorical perspective in a clinical sample of youth. Accepted June 16th 2023 for publication in the *Journal of Personality Disorders: Theory, Research, and Treatment.*

Contribution:

NK, MA, PH and OL conceptualized the APOLO research project and were responsible for data-collection. NK, BB and OL conceptualized this paper. NK and BB analyzed the data and wrote the first draft of the manuscript. All authors provided feedback on the manuscript.

Chapter 7
Narrative identity in youth and its association with personality pathology from a dimensional and categorical perspective

ABSTRACT

Narrative identity, as an integral element of personality, has gained increased attention for understanding personality pathology. In this study associations between seven characteristics of the narrative identity (i.e., event valence, theme, contextual coherence, thematic coherence, self-event connection valence, agency and communion) and personality pathology were examined. Personality pathology was conceptualized as 1) levels of personality (dys)functioning and maladaptive personality traits, 2) six trait facet profiles, and 3) categorical DSM-5 diagnoses. Data of 242 youths (M_{age} = 18.79; SD_{age} = 2.65) were collected as part of an ongoing longitudinal study on personality development. Narratives were assessed with turning point interviews, and trait and functioning levels with self-report questionnaires. Turning point narratives with a more negative valence and lower agency and communion scores were associated with higher levels of personality dysfunctioning, negative affectivity, detachment and psychoticism. These narrative characteristics were also associated with higher scores on the borderline, avoidant and obsessive compulsive trait facet profiles. No differences in the narratives of youth were found when considering personality pathology from a categorical perspective. Findings may inspire researchers and clinicians to give personal stories a more central role in their work.

Every person has a story. In personality psychology, the personal and subjective life story has been referred to as narrative identity (McAdams & McLean, 2013). Narrative identity is conceptualized as an integral part of one's personality that contributes to unity and purpose in ones' life. The importance of considering narrative identity as a contributor to general development, well-being, psychopathology and the family and cultural context has been increasingly recognized throughout the (sub)disciplines of personality psychology (e.g., Pals, 2006), developmental psychology (e.g., Camia & Habermas, 2020), clinical psychology (e.g., Adler, & Clark, 2019), and social and cultural psychology (e.g., McLean et al., 2018; Syed & McLean, 2021). This study focusses on the importance of narrative identity as a correlate of personality pathology in a clinical sample of youth.

Narrative identity development and personality pathology: What do we know?

Adolescence and young adulthood – in this study referred to as youth – has been identified as a key period for narrative identity development (McAdams & McLean, 2013). The major physical, psychological, and social functioning changes that occur during adolescence provide the kick-start for a role as autobiographical author (Shiner et al., 2021). The most notable cognitive leaps are the explicit connections adolescents start to make between experienced life events and the self (Pasupathi et al., 2007). Youth is also a key period for the onset of mental disorders generally and personality pathology specifically (Solmi et al., 2022). This developmental phase places strong demands on individuals to take on responsible adult roles in the areas of self- and interpersonal functioning. Thus, cognitive, emotional and social vulnerabilities that prohibit these role functions may become evident (Sharp, 2020). For this reason, youth presents a particular important phase to consider the development of narrative identity and personality pathology in-sync (Lind et al., 2022).

Characteristics of the narrative identity in relation to personality pathology have often been examined in community samples of youth (e.g., Shiner et al., 2021) and in clinical samples of adults (e.g., Lind et al., 2020; Sajjadi et al., 2022), but studies in clinical samples of youth are scarce. In addition, most studies report on adult patients or community adolescents with categorical personality disorder (PD) features, mostly borderline personality disorder (BPD). To the best of our knowledge, this study is one of the first to examine associations between narrative characteristics and personality pathology from a dimensional perspective in a clinical sample of youth. We consider three general characteristics of narrative identity that have been described (McLean et al., 2020): affective and motivational themes (i.e., valence, agency, communion), autobiographical reasoning (i.e., self-event connections, meaning making), and structural elements (i.e., coherence).

First, *affective theme* refers to the emotional valence of the narrative (McLean et al., 2020). Community youth with features of a categorical BPD and/or antisocial personality disorder (ASPD) tend to narrate about situations with a more negative affective valence than youth without these features (Vanderveren, et al., 2021). Adult patients with BPD narrate about life events more negatively than adults without this diagnosis (Botsford & Renneberg, 2020; Lind et al., 2020). However, adult patients with ASPD narrated equally often about negative memories, as they did about neutral or positive self-defining memories (Lavallee et al., 2020).

The *motivational theme* refers to goal-like orientations, in which the most common dimensions are agency and communion. Agency represents the need for autonomy and achievement ('to get ahead'). Communion represents the need for connection through love, intimacy and caring ('to get along'; McAdams & Pals, 2006). In one study with inpatient adolescents (of whom it is unclear whether or not they were formally diagnosed with a PD) thwarted agency and communion themes were associated with BPD features (Lind et al., 2022). Further, low levels of agency and communion were associated with BPD features in university students and adult patients diagnosed with BPD (Adler et al., 2012; Lind, et al., 2019; 2021; Sajjadi et al., 2022).

Second, *autobiographical reasoning*: Reflection on and reasoning about life events serves to integrate separate events within the broader self-concept (Habermas & Bluck, 2000). Stories of adult patients diagnosed with BPD have repeatedly been found to show evidence of negative self-event connections (Jorgensen et al., 2012; Lind et al., 2019; Lind et al., 2020). In student samples, findings have been mixed. While findings from one study indicated that self-event connections were associated with psychopathology, such as dissociation, interpersonal sensitivity and psychoticism (Holm & Thomsen, 2018), findings from another study did not find such an effect in students with schizotypal personality disorder features (See et al., 2021). See and colleagues suggested associations between self-event connections and psychopathology may be more likely to be found in clinical samples. Indeed, in a study in a clinical sample (partly the same data as used in the current study) it was found that self-event connections were related to personality dysfunctioning and negative affectivity concurrently. However, these findings did not hold when controlling for negative affectivity (De Moor et al., 2022).

Third, *structural elements* refer to the architectural part of a narrative, such as temporal and orientational details and order of the content (McLean, 2020). For example, coherence is a structural element, that serves the ordering of the narrative (McLean et al., 2020). Low levels of coherence were associated with BPD features in adolescents diagnosed with BPD, although this effect disappeared when considering the covari-

ance between narrative coherence and identity diffusion (Lind et al., 2019). Additionally, a lack of narrative coherence was related to poor mentalization and attachment insecurity (Lind et al., 2020). Furthermore, lower levels of narrative coherence were related to ASPD features in a community young adult sample, and with more childhood adversity in adult patients with BPD (Bendstrup et al., 2021; Vanderveren et al., 2021). However, in a university student sample coherence appeared to be negatively related to some maladaptive personality trait facets but not to BPD features (Sajjadi et al., 2022). In addition, in an adult psychiatric sample with 67% of the patients meeting criteria for one or more categorical PD, coherence appeared unrelated to personality functioning (Dimitrova & Simms, 2022).

These findings and mixed results emphasize the need to explore these general characteristics of narrative identity in a clinical sample of youth from multiple perspectives on personality pathology.

Narrative identity and personality pathology: categorical and dimensional perspectives

The conceptualization of personality pathology is changing: categorical models of PD have been criticized (Waugh et al., 2017), but are still widely used in research and clinical practice. Dimensional models, such as those proposed in Section III of the DSM-5 and ICD-11 (APA, 2013; WHO, 2019) operationalise personality pathology as impairments in personality functioning (criterion A) and maladaptive personality traits (criterion B). In Section III of the DSM-5, six dimensional trait facet profiles are suggested for Borderline, Antisocial, Avoidant, Narcissistic, Obsessive Compulsive and Schizotypal PD. Individuals can be characterized by such a profile if they score both high on personality dysfunctioning and on specific maladaptive trait facets.

The categorical and dimensional PD models do not include narrative identity. However, the associations between characteristics of the narrative identity and features of PD emphasize the value of narrative identity characteristics as an additional and alternative perspective on describing and understanding personality pathology (Lind, 2021; McCrae & Costa, 2021). Narratives may provide rich information about disturbances in personality functioning processes and self- and other concepts, that play a role in the consolidation of, or recovery from, personality pathology (Shiner et al., 2021). Hence, there is a emphasized need for the integration of the concepts of personality pathology and narrative identity (Adler & Clark, 2019; Lind et al., 2020).

The present study

This study investigates the associations between characteristics of narrative identity and personality pathology in a clinical sample of youth. Associations between

characteristics of turning point narratives and personality pathology are examined with personality pathology operationalized as 1) levels of personality functioning and maladaptive personality traits, 2) personality disorder trait facet profiles, and 3) traditional categorical DSM-5 diagnoses. Based on previous studies we expect that the narratives of youth with higher levels of personality pathology (i.e., more impairments in personality functioning, and higher levels of maladaptive personality traits, or higher scores on trait facet profiles, or a categorical PD) are characterized by negative valence and more negative valence self-event connections and lower levels of both agency and communion. Given the mixed results on coherence in earlier studies, no specific hypotheses were formulated about this association.

METHODS

Participants and procedure

The present study was part of an ongoing longitudinal study on personality development of clinical youth, named APOLO (Adolescence and their Personality Development: a Longitudinal Study; see Koster et al., 2022 for an elaborate description of the project). This study was approved by the ethical committees of the university faculty and the mental health care center in which data collection took place (FETC17-092). For the current study a sample of 242 youths, aged 12-26 (M = 18.79, SD = 2.65; 73% self-identified female) for whom turning point narrative data at the first assessment wave was available was used. These youth were referred for a range of severe mental disorders, mainly internalizing disorders and personality pathology. Youth with intellectual disabilities, schizophrenia spectrum and other psychotic disorders, severe eating disorders or severe externalizing disorders such as substance dependence did not participate, as these youths are typically referred to other specialized treatment programs. Furthermore, youth with insufficient knowledge of Dutch language to fill out the questionnaires were not selected for participation. Youth and their parents were asked to sign informed consent, and were informed that they could revoke their participation at any time if they wished to do so without any consequences. All youths and parents were asked to fill out the questionnaires online at home or in the institution and additionally participated in a short turning point interview.

Turning point interview

The Turning Point Interview (TPI) is a method that assesses one's narrative identity by asking participants to narrate about one specific turning point in their lives, which represents a story about an event that has changed ones' point of view about the self and/or the world (e.g., McLean & Pratt, 2006). We designed an infographic, that provides a graphical illustration of this question (see supplementary material).

Youths were asked to choose one specific turning point and were asked to narrate about this life event following these questions: "What did you feel, think or want during this moment?", "Why do you think this is an important moment in your life story?", and "Does this moment say something about who you are as person or your life?". Interviewers were trained to conduct the interview, with the instruction to ask for a situation that resembled a turning point, in case youths could not come up with a turning point event. Furthermore, interviewers were trained to only ask once per question whether youths could elaborate on their answer and to give no other response to the narrated story. To give an example, when asked about a turning point a youth stated: *"the death of my father was very important event in my life"*. When asked to elaborate he told: *"The episode made me feel terrible and lost, although afterwards it made me appreciate positive events in life even more. I learned to live life to its fullest, it can be over before you know it"*. The interviews were recorded and trained students and researchers transcribed and coded all transcripts.

Coding turning point narratives

All transcripts were coded for the different characteristics of narrative identity. The first 25 interviews were used to examine and code preselected characteristics of narrative identity based on existing literature (i.e., event valence, theme, coherence, self-event connections, agency and communion; McLean et al., 2020). An extensive coding manual was made that describes the codes for each characteristic with references to relevant literature (available on request from the first author). Coders, who were blind to this study's hypotheses, were trained in coding one narrative characteristic, such as 'event valence'. After training, coding was continually evaluated by means of coding the interviews in batches of 30, after which the coders discussed all the codes until consensus was reached. Each characteristic was coded by two main-coders and one master-coder who randomly coded one-third of all interviews. Reliability analyses were conducted between the two main coders and between each main coder and the master coder on all interviews. Reliability was determined following state-of-the art guidelines (Adler et al., 2017; Syed & Nelson, 2015). If a characteristic was coded with insufficient reliability (kappa < .60) it was excluded from further analyses. This was the case with stability/change (kappa = .53) in self-event connections.

Theme. Theme indicated the general content of the turning point. Themes were achievement, relationships, religion, sexuality, health, the self, and no codable theme/other. Each interview was assigned one dominant theme. Theme was coded with good reliability indexes (kappa = .70; percentage of agreement = 77%).

Event valence. Event valence indicated the valence of one's turning point narrative (negative, ambiguous/neutral or positive). Importantly, event valence concerned the

specific moment of the turning point itself and not the valence looking back on this moment (see self-event connection valence). Event valence was coded with good reliability indexes (kappa = .77; percentage of agreement = 88%).

Self-event-connection (SEC). SEC was coded following the coding system of Pasupathi and colleagues (2007). SEC indicated whether youth made any connection between the event and the self, which was coded as yes or no. All interviews with a SEC were coded for valence (negative, ambiguous/neutral or positive). Importantly, SEC-valence refers to the valence of meaning making at the present moment when reasoning about the past event and not to the valence of the turning point event itself. SEC (kappa = .71; percentage of agreement = 91%) and SEC-valence (kappa = .67; percentage of agreement = 75%) were coded with acceptable reliability indexes.

Agency. Agency was coded with a coding system adapted from Adler (2012). Agency indicated to what extend youths narratives showed evidence of a sense of control and autonomy. Agency was coded on a 3-point Likert scale, ranging from low to high agency. Agency was coded with an excellent inter-rater reliability (ICC = .86).

Communion. Communion was coded with a coding system adapted from Adler and colleagues (2012). Communion indicated to what extend youths narratives showed evidence of a concern with connection, love and intimacy. Communion was coded on a 4-point Likert scale, ranging from low to high communion. Communion was coded with an excellent inter-rater reliability (ICC = .84).

Coherence. Coherence was coded with a coding system adapted from Reese and colleagues (2011), that defined coherence in terms of Contextual Coherence and Thematic Coherence. Contextual Coherence indicated the level of non-specific and specific information concerning time and place in the narrative. Contextual coherence was coded on a 4-point Likert scale, ranging from low to high coherence. Thematic Coherence indicated the level of consistency in theme concerning introduction, explanatory information and conclusion. Thematic coherence was coded on a 3-point Likert scale, ranging from non/minimal to full structural coherence. Contextual Coherence was coded with excellent reliability (ICC = .89) and Thematic Coherence with good reliability (ICC = .76).

Personality functioning

The Level of Personality Functioning Scale–Brief Form (LPFS-BF; Hutsebaut et al., 2016) is a 12-item self-report questionnaire that showed satisfactory reliability and validity in assessing self-, interpersonal- and general -personality functioning. Items about personality functioning (e.g., 'I often do not know who I really am') are rated

on a 4-point Likert scale, ranging from 1 (not at all true or often untrue) to 4 (often true or completely true). In the present sample the Cronbach alpha's were .76 for Self- and .72 for Interpersonal -functioning.

Maladaptive personality traits

The Personal Inventory for DSM-5-100 (PID-5-100; Koster et al. 2020; Maples et al., 2015) is a 100-item self-report questionnaire that showed satisfactory reliability and validity in assessing five maladaptive personality traits, i.e., Negative Affectivity, Detachment, Antagonism, Disinhibition and Psychoticism, and 25 trait facets. Each item is a statement (e.g., 'I feel like I act totally on impulse') that is rated on a 4-point Likert scale, ranging from 0 (Very False / Often False) to 4 (Very True / Often True). The PID-5-100 is a short version of the 220-item PID-5 (PID-5; Krueger et al., 2012; Authorized Dutch translation by Van der Heijden and colleagues, 2014). In the current sample the Cronbach alpha's of the trait domains were .87 (Negative Affectivity), .82 (Detachment), .84 (Antagonism), .89 (Disinhibition), and .87 (Psychoticism). Cronbach alpha's of the trait facets ranged from .64 (irresponsibility) to .91 (distractibility; see supplementary material A1). Detailed information about psychometric properties in an outpatient sample of youth is provided by Koster and colleagues (2020).

Trait facet profile scores

Six trait facet profile scores were constructed based on the instruction in DSM-5-III in which profiles are described along levels of personality dysfunctioning and trait facet scores (APA, 2013). In this study we constructed these profiles by taking the mean of the indicated facets for each profile, not taking into account levels of personality functioning. This ensured that all youths – whom all had relatively high levels of personality dysfunctioning – had a score on each profile. The antisocial profile is characterized by the trait facets manipulativeness, deceitfulness, callousness, hostility, irresponsibility, impulsivity and risk taking. The avoidant profile by high scores on withdrawal, intimacy avoidance, anhedonia and anxiousness. The borderline profile by emotional lability, anxiousness, separation insecurity, depressivity, impulsivity, risk taking and hostility. The narcissistic profile by grandiosity and attention seeking. The obsessive-compulsive profile by rigid perfectionism and perseveration. Finally, the schizotypal profile by eccentricity, cognitive and perceptual dysregulation, unusual beliefs and experiences, restricted affectivity, withdrawal and suspiciousness (APA, 2013).

Categorical DSM-5 diagnoses

Youths were assessed by a clinical psychologist (PsyD or PhD) or psychiatrist (MD), whom assigned one or several DSM-5 diagnoses based on a clinical interview. During this assessment these highly trained clinicians had no knowledge of the scores on the completed questionnaires. In this study, only primary diagnoses were used and no comorbid diagnoses. Of the included youths 30% (N = 186) had a primary categorical PD diagnosis, of which 73% was a unspecified PD, 17% a borderline PD, 8% a avoidant PD, and 2% other PD's. Furthermore, 58% of the included youths did not have a PD as a primary classification, but was diagnosed with another type of primary disorder. Most common were depressive disorder (20%), anxiety disorder (13%) or developmental disorder (autism spectrum or attention deficit hyperactivity disorder; 16%). Of 12% the DSM-5 classification was unknown.

Analyses

All analyses were conducted in SPSS version 26 (IBM Corporation, 2019). Descriptive statistics are presented for all variables. In order to test our hypotheses for the associations between narrative identity characteristics and personality dysfunctioning, maladaptive personality traits and trait facet profiles, bivariate Pearson correlation analyses were conducted between these continuous variables and those of the narrative identity characteristics (event valence, coherence, self-event connection valence, agency and communion). An ANOVA test was conducted to test for differences in theme. In order to test our hypotheses for the associations between narrative identity characteristics and the categorical model of personality pathology a dummy variable was created for either a primary PD or another DSM-5 diagnosis. Only these two groups were selected because of the skewed distribution of different specific PDs. ANOVA analyses were conducted to test for differences in levels of event valence, coherence, self-event connection valence, agency and communion and for the two groups. A Chi square test of independence was performed to examine associations between this dummy and theme. Effect sizes were interpreted following the guidelines of Cohen (1992). Because we calculated a large number of associations, we corrected for multiple-testing by interpreting correlations at p-value's < .01.

Transparency and Openness. A power analysis was done for the correlational analyses, which indicated that for finding a moderate effect (> 0.3), with a power of 0.80 a sample size of 125 ($\alpha < 0.01$) or 85 ($\alpha < 0.05$) would be needed (Hulley et al, 2013). For finding similar effects with ANOVA analyses with 7 predictors, a sample size of 311 ($\alpha < 0.01$) or 225 ($\alpha < 0.05$) would be needed. This study's design and its analyses were not pre-registered. Due to the clinical nature of the data and ongoing data collection, the data can be made available on personal request to the first author.

RESULTS

Descriptive statistics (Means, SD's, and percentages) for all constructs are provided in supplementary material A2 – A5. Additional within- and between -construct correlations are reported in supplementary material A6 and A7.

Narrative identity, personality functioning, and maladaptive personality traits

Bivariate correlations between the characteristics of narrative identity, personality functioning, and maladaptive personality traits are presented in Table 1. Youth that narrated stories with a more negative event-valence and lower levels of agency reported higher levels of interpersonal dysfunctioning and negative affectivity. In addition, youth that narrated less communal stories reported higher levels of both self- and interpersonal dysfunctioning. Furthermore, youth that narrated stories with a more negative self-event connection valence reported higher levels of interpersonal dysfunctioning, negative affectivity, detachment and psychoticism. All associations had small to medium effect sizes. Notable is the absence of any significant correlation between contextual- and thematic -coherence and personality dysfunctioning (self or interpersonal) or maladaptive personality traits. The ANOVA analysis (Table 2) demonstrated no significant associations between the themes youth narrated and the levels of personality dysfunctioning or maladaptive personality traits.

Narrative identity and trait facet profiles

Bivariate and point-biserial correlations between the characteristics of narrative identity and the trait facet profiles are presented in Table 1. Youth that narrated stories with a more negative event valence reported higher scores on the obsessive compulsive trait facet profile. In addition, youth with less agentic stories reported higher scores on the avoidant trait facet profile and youth with less communal stories reported higher scores on the avoidant and schizotypal profile. Further, youth that narrated stories with a more negative self-event connection valence reported higher scores on the borderline-, the avoidant-, and schizotypal -trait facet profiles. All associations had small to medium effect sizes. Notable is the absence of any significant correlations between contextual- and thematic -coherence and other dimensional personality variables. The ANOVA analysis (Table 2) demonstrated no significant associations between the themes youth narrated and the trait facet profiles.

DSM-5 categorical classifications

Differences between narrative characteristics for the two diagnosis groups are presented in Table 3. Our ANOVA results indicated no differences in event valence, contextual and thematic coherence, self-event connection valence, agency, and communion. The

Chi Square test of independence indicated no differences (using the standard of $p < .001$) in Theme $X^2(8) = 15.60$, $p = .048$ between youth with and without a categorical PD diagnosis.

DISCUSSION

Narrative identity has gained increased attention for conceptualizing and understanding the course of personality pathology (Dunlop et al., 2022; Lind, 2021). In this study we examined the association between seven narrative identity characteristics (i.e., event valence, coherence, self-event connection, agency and communion) and personality pathology in a clinical sample of youth. We used three perspectives on personality pathology: 1) personality dysfunctioning and maladaptive personality traits 2) six trait facet profiles and 3) categorical DSM-5 PD classifications. Generally, we found small to medium differences in narrative identity characteristics when considering a dimensional and trait facet profile perspective. Youths who narrated about turning point events with a more negative valence, negative self-event connections and lower agency and communion, reported higher levels of personality dysfunctioning, negative affectivity, detachment and psychoticism, and higher scores on the borderline-, avoidant- and obsessive compulsive-trait facet profiles. We found no differences in narrative identity characteristics when considering a categorical perspective on personality pathology: the narratives of youth with a primary categorical DSM-5 PD diagnosis were similar to the narratives of youth with another primary diagnosis.

Table 1. *Pearson Correlations between personality functioning, maladaptive personality traits, trait facet profiles and narrative identity characteristics*

	Valence	Contextual Coherence	Thematic Coherence	SEC Valence	Agency	Communion
Interpersonal functioning	**-.225**[a]	-.021	.058	**-.242**[a]	**-.253**[a]	**-.290**[a]
Self-functioning	-.113	-.036	.031	-.191[b]	-.136	**-.221**[a]
Negative Affectivity	**-.175**[a]	-.024	.030	**-.233**[a]	**-.221**[a]	-.172[b]
Detachment	-.107	-.049	.018	**-.202**[a]	-.116	-.170[b]
Antagonism	.049	-.014	.025	-.072	.045	-.023
Disinhibition	.031	-.107	.028	-.199[b]	-.032	-.064
Psychoticism	-.070	-.108	.032	**-.273**[a]	-.175[b]	-.192[b]
BPD Profile	-.140[b]	-.080	.018	**-.256**[a]	-.182[b]	-.190[b]
Antisocial Profile	.038	-.075	.007	-.143	-.011	-.077
Avoidant Profile	-.168[b]	-.072	.028	**-.267**[a]	**-.206**[a]	**-.208**[a]
Narcissistic Profile	.079	.058	.023	.047	.086	.001
Obsessive Compulsive Profile	**-.175**[a]	-.103	.015	-.183[b]	-.121	-.138
Schizotypal Profile	-.133[b]	-.126	-.001	**-.314**[a]	-.183[b]	**-.249**[a]

[a]***p* <.001**; [b]*p<.05*

SEC = Self-Event Connection

Table 2. *Differences in Theme for levels of personality dysfunctioning, maladaptive personality traits and trait facet profile scores*

	F	*p*
Interpersonal functioning	1.49	.162
Self-functioning	1.38	.208
Negative Affectivity	1.54	.146
Detachment	.95	.477
Antagonism	.99	.445
Disinhibition	.84	.571
Psychoticism	1.25	.270
BPD Profile	1.61	.123
Antisocial Profile	.55	.819
Avoidant Profile	1.11	.357
Narcistic Profile	1.86	.069
Obsessive Compulsive Profile	.96	.471
Schizotypal Profile	1.32	.235

Table 3. *Narrative characteristic differences between PD and No PD groups*

	F	*p*
Valence	.00	.948
Contextual Coherence	.78	.378
Thematic Coherence	.00	.951
Self-event connection valence	.22	.641
Agency	.00	.975
Communion	.03	.862

Narrative identity, personality dysfunctioning, and maladaptive personality traits

With regard to *affective themes* we found that youth who narrated about turning points with a negative event valence, reported higher levels of interpersonal dysfunctioning and negative affectivity. This may be due to youth with higher levels of personality pathology generally experiencing more negative (turning point) events in their life (Beck et al., 2015). Alternatively, this may be explained by an attention and perception bias that makes one prone to negative-processing and has often been found in individuals with high levels of negative affectivity (Brock et al., 2022; Lilghendahl & McAdams, 2011). Interestingly, this bias has been suggested to be particularly strong when individuals are not likely to rely on interpersonal resources to regulate negative affect (Brock et al., 2022). This latter finding hints at an integrated interpretation of our results that indicates that youth who evaluate (turning point) events with negative valence have higher rates of negative affectivity *and* interpersonal deficiencies.

With regard to the *motivational themes* of agency and communion, our results demonstrate that youths who narrated less agentic and communal turning point events reported more impairments in interpersonal functioning. In addition, youth with less communal turning points reported more impairments in self-functioning. These associations were not surprising, as it has been suggested that Criterion A, that is self- and interpersonal personality dysfunctioning, captures these two core dimensions of 'getting ahead' (agency/self-functioning) and 'getting along' (communion/interpersonal functioning) (Bender, 2019; Lind, 2021; Pincus, 2018). It is notable that both a short self-report questionnaire and coded qualitative data capture these dimensions adequately well. Nonetheless, the somewhat counterintuitive finding in our sample with regard to the lack of association between self-dysfunctioning and agency deserves future attention. Further, in line with previous findings, it appeared that youth who narrated less agentic stories reported higher levels of negative affectivity (Ghaed & Gaallo, 2006). Indeed, negative affectivity, or the opposite 'emotional stability' has been related to one's internal locus of control that drives individuals to approach, pursue and attain goals (De Hoogh & Den Hartog, 2009).

With regard to *autobiographical reasoning* our results demonstrated that self-event connection valence was related to personality pathology. This can be termed 'unhealthy meaning making', or growth-limiting self-event connections, which has been related to general well-being (Lilgendahl et al., 2013). In our sample, youth who narrated stories with more negative self-event connections reported higher levels of interpersonal dysfunctioning, negative affectivity, detachment and psychoticism. Given, the mixed results in previous studies, this finding may point to See and colleagues (2021) being right in suggesting that such unhealthy meaning making through negative self-event

connections may be especially evident in the narratives of individuals with personality pathology. It has been found that youth, in comparison to older individuals, were more likely to make these damaged self-connections when having experienced trauma (Lilgendahl et al., 2013). This may have to do with adolescents and young adults being prone to making new and more self-event connections because of the key developmental task of identity construction during this phase (Pasupathi & Weeks, 2011). Furthermore, in a study that was part of the same longitudinal research project (Koster et al., 2020), negative self-event connections were found to be cross-sectionally related to personality functioning, but not predictive of future functioning when controlling for negative affectivity (De Moor et al., 2022). As such it may be that one's levels of negative affectivity determines both proneness to maladaptive meaning making patterns and personality functioning problems over time. Future studies, or studies on data that is currently being collected within the APOLO project, could examine possible determinants of these constructs.

With regard to *structural elements* we found that both thematic and contextual coherence were unrelated to levels of personality dysfunctioning and personality traits, in line with previous studies (Dimitrova & Simms, 2022; Sajjadi et al., 2022). Despite some other studies reporting that individuals with personality pathology narrate less coherent stories (Lind et al., 2020; Vanderveren et al., 2021), this was not the case in our sample of clinical youth. Differences in narrative prompts may play a role in the absence of this association (Adler, 2012; McLean et al., 2020). For example, in contrast to the one specific turning point prompt that was used in our study, more extensive prompts such as a complete life story interview that addresses multiple events may be more suitable for finding evidence for coherence. Future studies could test this hypothesis by using such extensive prompts in a similar population of outpatient youth. Single case study designs could be another suitable manner to explore this hypothesis. Furthermore, the age of our participants may provide an alternative explanation for the absence of associations with coherence. Whereas incoherence in narratives of patients with personality disorder seems more consistently found in adults (Adler et al., 2012; Lind et al., 2020), the results in youth are less clear. When narrative coherence of 'the young and old' are compared, the old are more likely to provide thematic coherent narratives than adolescents and young adults (McLean, 2008). This may have to do with the developmental task of adolescence and emerging adulthood being the construction of a coherent identity and self-narrative, which is reflected in the robust age-related increases in coherence that have been reported (Chen et al., 2012). It is precisely in this developmental phase that 'the young' are constructing a coherent life story and therefore incoherence may not necessarily be a display of pathology but of development. This could explain the lack of associations

with personality dysfunctioning and maladaptive personality traits. Future studies could test this hypothesis by using a control group of clinical adults.

Generally, the lack of associations between narrative identity characteristics and the maladaptive personality traits of disinhibition and antagonism is notable. Studies on narrative characteristics and high levels of disinhibition and antagonism, or specifically externalizing psychopathology, are scarce. In a study with emerging adults, narrative coherence did appear to be related to disturbed identity functioning and ASPD features (Vanderveren et al., 2021). The sole use of self-reported data may play a role, it may be that the use of informant-report data on these traits would provide other results. Future studies could investigate the narrative characteristics of this specific clinical population with predominantly externalizing problems, which could provide helpful insights for treatment of this complex and often treatment-resistant group (Chin et al.2013).

Narrative identity and trait facet profiles

Considering the six trait facet profiles led to similar results to the associations between narrative characteristics, personality dysfunctioning and maladaptive personality traits. This is not surprising as the maladaptive personality trait domains are constructed from the trait facets. However, associations with the six trait facet profiles do provide insight in the narratives of youth with a specific mix of characteristics that are associated with categorical PDs.

With regard to the *affective themes*, it was found that youth that narrate about negative turning point events report higher scores on the obsessive compulsive profile, characterized by rigid perfectionism and perseveration. The relation between OCD symptoms and negative interpretation biases has been demonstrated by other studies (Clerkin & Teachman, 2011; Hezel & McNally, 2016). However, with regard to our findings, it is unclear why we find this relation solely for the obsessive compulsive profile and not for the other profiles, for which these cognitive and attention biases are also likely (Kaiser et al., 2016). Concerning *autobiographical reasoning*, we find that youth who make more negative self-event connections had higher scores on the borderline-, avoidant- en schizotypal -personality profiles. Both these results of *affective themes* and *autobiographical reasoning* for the different trait facet profiles reflect the negativity bias and enhanced memory for negative information that is often found in youth with personality pathology, particularly borderline personality pathology (Carlson & Oltmanns, 2015; Niedtfeld et al., 2020). With regard to *motivational themes*, it appeared that – in line with previous findings – youth with an avoidant personality trait facet profile narrated less communal and less agentic stories and youth with an schizotypal personality trait facet profile less communal stories (Cowan et al., 2021;

Holm et al., 2018; See et al., 2021). Lower levels of agency and communion have also frequently been studied and reported in patients with BPD (e.g., Lind et al., 2022; Sajjadi et al., 2022), however, in this study this connection was not as clear. This points to the importance of considering personality pathology across the spectrum, instead of the sole focus on BPD. Similar to our findings concerning the personality functioning and maladaptive personality traits in general, no associations were found between the *structural element* of coherence and the six different trait facet profiles. In addition, similarly to the lack of findings with externalizing maladaptive personality traits, no associations were found with the antisocial and narcissistic trait facet profiles.

Narrative identity and categorical DSM-5 diagnoses

Our results indicated no differences with regard to *affective* and *motivational themes*, *autobiographical reasoning* and *structural elements* between youth with or without a primary categorical PD diagnosis. This is a somewhat unexpected finding given our results with regard to the dimensional and trait facet profile perspectives and a previous review that described particular associations between categorical DSM-5 PD diagnoses and narrative identity characteristics (Lind et al., 2020). It must be taken into account that Lind and colleagues (2020) considered a wide variety of studies with predominantly adult samples with BPD diagnoses. In the context of our relatively heterogeneous population of clinical youths, the absence of associations between narrative characteristics and these two broad groups of 'PD diagnosis' vs. 'no PD diagnosis' may have many explanations. First, it may be that narrative identity actually lacks in distinctive ability between PD and no PD, such that narrative characteristics do not reflect a type of pathology. Hence, the separated groups may have more in common than differences, namely youths with a primary PD also have other mental disorders and symptoms, and youths with another primary clinical diagnosis also have PD features. Second, it may be that previous findings (e.g., Lind et al., 2020) were illustrative for specific types of PD, for instance the BPD, whereas our study grouped all types of PD together. Third, DSM-5 diagnoses were determined by clinicians whereas the narrative and trait facet data were both self-report, which could have led to single method variance. Previous demonstrated associations with different types of PDs (Lind et al., 2022) may be partially confirmed by the associations we found between narrative characteristics and specific trait facet profiles.

Integration of findings and clinical consequences

The separate narrative characteristics examined in this study combine into one story of one unique individual. This individual has a specific portrayal of personality functioning problems, maladaptive personality traits and trait facets. Based on our findings it may be concluded that clinical youth that narrate stories about negative events, drawing negative self-event connections and showing evidence of thwarted agency

and communion report predominantly interpersonal functioning problems and high levels of negative affectivity, particularly illustrative for the avoidant trait facet profile. Negative self-event connections seem evident in youth with more diverse maladaptive personality traits and symptoms, and may most likely be a characteristic of severe psychopathology in general. This is intelligible because experiencing negative life events requires more cognitive resources to process adaptively (self-event connection; Taylor, 1991). Resources that are often not readily available in a clinical sample of youth due to having experienced multiple adverse life events and their developmental phase (Lilgendahl, et al., 2013). Thus, maladaptive meaning through negative self-event connections is more likely to occur, in turn contributing to higher levels of psychopathology (Banks & Salmon, 2011). This may be specifically detrimental in the developmental phase of youth in which coherent identity formation is an important developmental milestone and getting ahead (agency) and getting along (communion) is a specific challenge (Chen et al., 2012; Meisel et al., 2021).

These findings have relevant implications for clinical practice, both in regards to understanding youth concurrently and finding ports of entrance for a psychotherapeutic treatment. First, in a therapeutic setting typical questions a clinician asks a patient are 'tell me something about yourself?' or 'what brings you here at this moment in time?'. Patients respond with stories. This study shows that the way they do so provides insight in their personality functioning, maladaptive traits and trait facet profiles, which is of interest for psycho-diagnostic assessment or indication for treatment of psychopathology. Second, stories have been found to change during psychotherapeutic interventions (Adler et al., 2013; Singer et al., 2013), changes that have been related to increases in personality functioning and well-being (e.g., Cox & McAdams, 2014). Therefore stories can be considered a port of entry or vehicle for change. (Keefe & Derubeis, 2019). This is particularly important and hopeful for youth, as adolescence is such a crucial phase for the formation of either adaptive or maladaptive narrative identities (McAdams & McLean, 2013). In other words, it is a vulnerable phase for unhealthy meaning making, but also a particular optimal phase to intervene on these personal narratives by promoting healthy meaning making.

Limitations

The present study had some limitations. First, this study made use of self-report data for personality functioning and maladaptive personality traits. Future studies could additionally include informant data in order to contribute to a full understanding of the associations between narrative identity characteristics, functioning and traits. Second, the short semi-structured interview (TPI) that was used for reasons of feasibility contains less information compared to a full life story interview. Even though this is a much-used instrument with children and adolescents, the briefness might have

resulted in lack of information necessary for coding the full concept and all characteristics of narrative identity. Third, we may have lacked power for finding significant results in the ANOVA analyses, due to controlling for multiple testing by using a significance rate of $\alpha < 0.01$. Finally, research on (narrative) identity in youth would benefit from a developmental approach. Future longitudinal studies could shed light on the transactional influences between narrative identity and personality pathology characteristics. Suggestions for these studies would be to examine correlated change or predictive relations over longer periods of time, to follow one individual for a longer period of time and examine reciprocal influences in case study designs, or to 'zoom in' on daily fluctuations in meaning making and functioning for example by using experience sampling designs.

Conclusion

The present study provides insight in the associations between narrative identity characteristics and personality pathology in a clinical sample of youth. Turning point narratives with maladaptive characteristics, more specific a negative event valence, negative self-event connection valence, low agency and low communion seemed particular evident in youth with predominantly impairments in interpersonal functioning and high levels of negative affectivity. From the perspective of the six trait facet profiles, these maladaptive narrative characteristics were apparent in the avoidant profile. Turning point narratives with negative self-event connections were evident in a broader group of clinical youth with more diverse maladaptive personality traits and symptoms. This suggests that unhealthy meaning making could be a characteristic of severe psychopathology in general. Notable were the absence of associations between coherence and personality pathology, and between narrative characteristics and externalizing maladaptive personality traits and profiles. Furthermore, PD diagnosis did not differentiate between narrative characteristics of patient groups. Based on our findings it can be concluded that the characteristics of stories of clinical youth shed light on their personality functioning, pathological personality traits and trait facet profiles. These findings are relevant for the integration of the concepts of narrative identity and personality pathology and guide future research to include narrative identity in their work on youth (pathological personality) development. Finally, the current findings may inspire clinicians to give personal stories a central role in clinical practice due to the role of narrative identity in the emergence and consolidation of – and recovery from – personality pathology.

REFERENCES

Adler, J. M. (2012). Living into the story: agency and coherence in a longitudinal study of narrative identity

development and mental health over the course of psychotherapy. *Journal of personality and social psychology*, *102*(2), 367. https://psycnet.apa.org/doi/10.1037/a0025289

Adler, J. M., Chin, E. D., Kolisetty, A. P., & Oltmanns, T. F. (2012). The distinguishing characteristics of narrative identity in adults with features of borderline personality disorder: An empirical investigation. *Journal of personality disorders*, *26*(4), 498. https://doi.org/10.1521/pedi.2012.26.4.498

Adler, J. M., & Clark, L. A. (2019). Incorporating narrative identity into structural approaches to personality and psychopathology. *Journal of Research in Personality*, *82*, 103857. https://doi.org/10.1016/j.jrp.2019.103857

Adler, J. M., Dunlop, W. L., Fivush, R., Lilgendahl, J. P., Lodi-Smith, J., McAdams, D. P., McLean, K. C., Pasupathi, M., & Syed, M. (2017). Research methods for studying narrative identity: A primer. *Social Psychological and Personality Science*, *8*(5), 519- 527. https://doi.org/10.1177/1948550617698202

Adler, J. M., Harmeling, L. H., & Walder-Biesanz, I. (2013). Narrative meaning making is associated with sudden gains in psychotherapy clients' mental health under routine clinical conditions. *Journal of consulting and clinical psychology*, *81*(5), 839. https://psycnet.apa.org/doi/10.1037/a0033774 American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

Banks, M. V., & Salmon, K. (2013). Reasoning about the self in positive and negative ways: Relationship to psychological functioning in young adulthood. *Memory*, *21*(1), 10-26. https://doi.org/10.1080/09658211.2012.707213

Beck, J. G., Reich, C. M., Woodward, M. J., Olsen, S. A., Jones, J. M., & Patton, S. C. (2015). How do negative emotions relate to dysfunctional posttrauma cognitions? An examination of interpersonal trauma survivors. *Psychological Trauma: Theory, Research, Practice, and Policy*, *7*(1), 3. https://psycnet.apa.org/doi/10.1037/a0032716

Bender, D.S. (2019) The P-Factor and What It Means to Be Human: Commentary on Criterion A of the AMPD in HiTOP, Journal of Personality Assessment, 101:4, 356-359. https://doi-org.proxy.library.uu.nl/10.1080/00223891.2018.1492928

Bendstrup, G., Simonsen, E., Kongerslev, M. T., Jørgensen, M. S., Petersen, L. S., Thomsen, M. S., & Vestergaard, M. (2021). Narrative coherence of autobiographical memories in women with borderline personality disorder and associations with childhood adversity. *Borderline Personality Disorder and Emotion Dysregulation*, *8*(1), 1-10. https://doi.org/10.1186/s40479-021-00159-5

Botsford, J., & Renneberg, B. (2020). Autobiographical memories of interpersonal trust in borderline personality disorder. *Borderline Personality Disorder and Emotion Dysregulation*, *7*(1), 1-10. https://doi.org/10.1186/s40479-020-00130-w

Brock, R. L., Harp, N. R., & Neta, M. (2022). Interpersonal emotion regulation mitigates the link between trait neuroticism and a more negative valence bias. *Personality and Individual Differences*, *196*, 111726. https://doi.org/10.1016/j.paid.2022.111726

Camia, C., & Habermas, T. (2020). Explaining change in content of life narratives over time. *Memory*, *28*(5), 655-668. https://doi.org/10.1080/09658211.2020.1761397

Carlson, E. N., & Oltmanns, T. F. (2015). The role of metaperception in personality disorders: Do people with personality problems know how others experience their personality?. *Journal of Personality Disorders*, *29*(4), 449. https://doi.org/10.1521/pedi.2015.29.4.449

Chen, Y., McAnally, H. M., Wang, Q., & Reese, E. (2012). The coherence of critical event narratives and adolescents' psychological functioning. *Memory*, *20*(7), 667-681. https://doi.org/10.1080/09658211.2012.693934

Chin, E. G., Ebesutani, C., & Young, J. (2013). Application of the tripartite model to a complicated sample of residential youth with externalizing problems. *Child Psychiatry & Human Development*, *44*(3), 469-478. https://dx.doi.org/10.1007/s10578-012-0341-y

Clerkin, E. M., & Teachman, B. A. (2011). Training interpretation biases among individuals with symptoms of obsessive compulsive disorder. *Journal of Behavior Therapy and Experimental Psychiatry*, *42*(3), 337-343. https://doi.org/10.1016/j.jbtep.2011.01.003

Cohen, J. (1992). Statistical power analysis. *Current directions in psychological science*, *1*(3), 98-101. https://doi.org/10.1111/1467-8721.ep10768783

Cowan, H. R., Mittal, V. A., & McAdams, D. P. (2021). Narrative identity in the psychosis spectrum: A systematic review and developmental model. *Clinical Psychology Review*, *88*, 102067. https://doi.org/10.1016/j.cpr.2021.102067

Cox, K., & McAdams, D. P. (2014). Meaning making during high and low point life story episodes predicts emotion regulation two years later: How the past informs the future. *Journal of Research in Personality*, *50*, 66-70. https://doi.org/10.1016/j.jrp.2014.03.004

De Hoogh, A. H., & Den Hartog, D. N. (2009). Neuroticism and locus of control as moderators of the relationships of charismatic and autocratic leadership with burnout. *Journal of Applied Psychology*, *94*(4), 1058. https://psycnet.apa.org/doi/10.1037/a0016253

De Moor, E. L., Van der Graaff, J., Koster, N., Laceulle, O. M., & Branje, S. (2022). The relation between self-event connections and personality functioning in youth with severe psychopathology. *Journal of Personality*, *90*(5), 799-816. https://doi.org/10.1111/jopy.12697

Dimitrova , J. & Simms, L. J. (2022). Construct Validation of Narrative Coherence. *Personality Disorders: Theory, Research, and Treatment, 13* (5), 482-493. https://psycnet.apa.org/doi/10.1037/per0000508

Dunlop, W. L., Lind, M., & Hopwood, C. J. (2022). Synthesizing contemporary integrative interpersonal theory and the narrative identity approach to examine personality dynamics and regulatory processes. *Journal of Personality*. https://doi.org/10.1111/jopy.12707

Ghaed, S. G., & Gallo, L. C. (2006). Distinctions among agency, communion, and unmitigated agency and communion according to the interpersonal circumplex, five-factor model, and social-emotional correlates. *Journal of personality assessment*, *86*(1), 77-88. https://doi.org/10.1207/s15327752jpa8601_09

Habermas, T., & Bluck, S. (2000). Getting a life: the emergence of the life story in adolescence. *Psychological bulletin*, *126*(5), 748. https://psycnet.apa.org/doi/10.1037/0033-2909.126.5.748

Hezel, D. M., & McNally, R. J. (2016). A theoretical review of cognitive biases and deficits in obsessive–compulsive disorder. *Biological Psychology*, *121*, 221-232. https://doi.org/10.1016/j.biopsycho.2015.10.012

Heijden van der, P.T., Ingenhoven, T., Berghuis, H., & Rossi, G. (2014). PID-5-NL. https://www.trimbos.nl/docs/59e37f25-116a-4519-988f-a2d90c5fffe3.pdf

Holm, T., & Thomsen, D. K. (2018). Self-event connections in life stories, self-concept clarity, and dissociation: Examining their relations with symptoms of psychopathology. *Imagination, Cognition and Personality*, *37*(3), 293-317. https://doi.org/10.1177/0276236617733839

Holm, T., Thomsen, D. K., & Bliksted, V. (2018). Themes of unfulfilled agency and communion in life stories of patients with schizophrenia. *Psychiatry Research*, *269*, 772-778. https://doi.org/10.1016/j.psychres.2018.08.116

Hulley, S. B., Cummings, S. R., Browner, W. S., Grady, D., & Newman, T.B. (2013). Designing clinical research: an epidemiologic approach. 4th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2013. Appendix 6C, page 79. Found at: Correlation sample size | Sample Size Calculators (sample-size.net)

Hutsebaut, J., Feenstra, D. J., & Kamphuis, J. H. (2016). Development and preliminary psychometric evaluation of a brief self-report questionnaire for the assessment of the DSM–5 level of Personality Functioning Scale: The LPFS brief form (LPFS-BF). *Personality Disorders: Theory, Research, and Treatment*, *7*(2), 192. https://dx.doi.org/10.1037/per0000159

Jørgensen, C. R., Berntsen, D., Bech, M., Kjølbye, M., Bennedsen, B. E., & Ramsgaard, S. B. (2012). Identity-related autobiographical memories and cultural life scripts in patients with Borderline Personality Disorder. *Consciousness and Cognition*, *21*(2), 788-798. https://doi.org/10.1016/j.concog.2012.01.010

Kaiser, D., Jacob, G. A., Domes, G., & Arntz, A. (2016). Attentional bias for emotional stimuli in borderline personality disorder: A meta-analysis. *Psychopathology*, *49*(6), 383-396. https://doi.org/10.1159/000448624

Keefe, J. R., & Derubeis, R. J. (2019). Changing character: A narrative review of personality change in psychotherapies for personality disorder. *Psychotherapy Research*, *29*(6), 752-769. https://doi.org/10.1080/10503307.2018.1425930

Koster, N., Laceulle, O. M., Van der Heijden, P. T., Klimstra, T., De Clercq, B., Verbeke, L., De Caluwé, A. L., & Van Aken, M. A. (2019). A psychometric evaluation of a reduced version of the PID-5 in clinical and non-clinical adolescents. *European Journal of Psychological Assessment*. https://doi.org/10.1027/1015-5759/a000552

Koster, N., Lusin, I., van der Heijden, P. T., Laceulle, O. M., & van Aken, M. A. (2022). Understanding personality pathology in a clinical sample of youth: study protocol for the longitudinal research project 'APOLO'. *BMJ open*, *12*(6), e054485. http://dx.doi.org/10.1136/bmjopen-2021-054485

Krueger, R. F., Derringer, J., Markon, K. E., Watson, D., & Skodol, A. E. (2012). Initial construction of a maladaptive personality trait model and inventory for DSM-5. *Psychological medicine*, *42*(9), 1879-1890. https://doi.org/10.1017/S0033291711002674

Lavallee, A., Gandolphe, M. C., Saloppé, X., Ott, L., Pham, T., & Nandrino, J. L. (2020). Characterization of self-defining memories in criminals with antisocial personality disorder. *Memory*, *28*(9), 1123-1135. https://doi.org/10.1080/09658211.2020.1818785

Lilgendahl, J.P., McAdams, D.P. (2011). Constructing stories of self-growth: how individual differences in patterns of autobiographical reasoning relate to well-being in midlife. *Journal of Personality, 79(2),* 391-428. https://doi.org/10.1111/j.1467-6494.2010.00688.x

Lilgendahl, J. P., McLean, K. C., & Mansfield, C. D. (2013). When is meaning making unhealthy for the self? The roles of neuroticism, implicit theories, and memory telling in trauma and transgression memories. *Memory*, *21*(1), 79-96. https://doi.org/10.1080/09658211.2012.706615

Lind, M. (2021). ICD-11 Personality disorder: The indispensable turn to narrative identity. *Frontiers in Psychiatry*, *12*, 642696. https://doi.org/10.3389/fpsyt.2021.642696

Lind, M., Adler, J. M., & Clark, L. A. (2020). Narrative identity and personality disorder: An empirical and conceptual review. *Current Psychiatry Reports*, *22*(12), 1-11. https://doi.org/10.1007/s11920-020-01187-8

Lind, M., Sharp, C., & Dunlop, W. L. (2022). Why, how, and when to integrate narrative identity within dimensional approaches to personality disorders. *Journal of Personality Disorders*, 1-22. https://doi.org/10.1521/pedi_2012_35_541

Lind, M. , Vanwoerden, S. , Bo, S. & Sharp, C. (2022). Borderline Personality Disorder in Adolescence. *Personality Disorders: Theory, Research, and Treatment, 13* (5), 451-459. https://psycnet.apa.org/doi/10.1037/per0000517

Lind, M., Vanwoerden, S., Penner, F., & Sharp, C. (2019). Inpatient adolescents with borderline personality disorder features: Identity diffusion and narrative incoherence. *Personality Disorders: Theory, Research, and Treatment, 10*(4), 389–393. https://doi.org/10.1037/per0000338

Lind, M., Vanwoerden, S., Penner, F., & Sharp, C. (2020). Narrative coherence in adolescence: relations with attachment, mentalization, and psychopathology. *Journal of Personality Assessment*, *102*(3), 380-389. https://doi.org/10.1080/00223891.2019.1574805

Maples, J. L., Carter, N. T., Few, L. R., Crego, C., Gore, W. L., Samuel, D. B., Williamson, R. L., Lynam, D. R.,

Widiger, T. A., Markon, K. E., Krueger, R. F., & Miller, J. D. (2015). Testing whether the DSM-5 personality disorder trait model can be measured with a reduced set of items: An item response theory investigation of the Personality Inventory for DSM-5. *Psychological Assessment*, *27*(4), 1195. https://psycnet.apa.org/doi/10.1037/pas0000120

McAdams D. P., McLean K. C. (2013) Narrative identity. *Current Directions in Psychological Science* 22: 233–238. https://doi.org/10.1177/0963721413475622

McAdams, D. P., & Pals, J. L. (2006). A new Big Five: fundamental principles for an integrative science of personality. *American psychologist*, *61*(3), 204. https://psycnet.apa.org/doi/10.1037/0003-066X.61.3.204

McCrae, R. R., & Costa Jr, P. T. (2021). Understanding persons: From Stern's personalistics to Five-Factor Theory. *Personality and Individual Differences*, *169*, 109816. https://doi.org/10.1016/j.paid.2020.109816

McLean, K. C. (2008). Stories of the young and the old: Personal continuity and narrative identity. *Developmental Psychology, 44*(1), 254–264. https://doi.org/10.1037/0012-1649.44.1.254

McLean, K. C., Lilgendahl, J. P., Fordham, C., Alpert, E., Marsden, E., Szymanowski, K., & McAdams, D. P. (2018). Identity development in cultural context: The role of deviating from master narratives. *Journal of Personality*, *86*(4), 631-651. https://doi.org/10.1111/jopy.12341

McLean, K. C., & Pratt, M. W. (2006). Life's little (and big) lessons: identity statuses and meaning-making in the turning point narratives of emerging adults. *Developmental psychology*, *42*(4), 714. https://psycnet.apa.org/doi/10.1037/0012-1649.42.4.714

McLean, K. C., Syed, M., Pasupathi, M., Adler, J. M., Dunlop, W. L., Drustrup, D., Fivush, R., Graci, M. E., Lilgendahl, J. P., Lodi-Smith, J., McAdams, D. P., & McCoy, T. P. (2020). The empirical structure of narrative identity: The initial Big Three. *Journal of Personality and Social Psochology, 119*(4), 920. https://psycnet.apa.org/doi/10.1037/pspp0000247

Meisel, S. N., Paul, M. J., & Colder, C. R. (2021). Agency, communion, and pubertal status: Separating between-and within-person associations to examine social goals development. *Journal of personality*, *89*(5), 1095-1107. https://doi.org/10.1111/jopy.12638

Niedtfeld, I., Renkewitz, F., Mädebach, A., Hillmann, K., Kleindienst, N., Schmahl, C., & Schulze, L. (2020). Enhanced memory for negative social information in borderline personality disorder. *Journal of Abnormal Psychology*, *129*(5), 480. https://psycnet.apa.org/doi/10.1037/abn0000540

Pals, J. L. (2006). Narrative identity processing of difficult life experiences: Pathways of personality development and positive self-transformation in adulthood. *Journal of personality*, *74*(4), 1079-1110. https://doi.org/10.1111/j.1467-6494.2006.00403.x

Pasupathi, M., Mansour, E., & Brubaker, J. R. (2007). Developing a life story: Constructing relations between self and experience in autobiographical narratives. *Human development*, *50*(2-3), 85-110. https://doi.org/10.1159/000100939

Pasupathi, M., & Weeks, T. L. (2011). Integrating self and experience in narrative as a route to adolescent identity construction. *New directions for child and adolescent development*, *2011*(131), 31-43. https://doi.org/10.1002/cd.287

Pincus, A. L. (2018). An interpersonal perspective on Criterion A of the DSM-5 Alternative Model for Personality Disorders. *Current opinion in psychology*, *21*, 11-17. https://doi.org/10.1016/j.copsyc.2017.08.035

Reese, E., Haden, C. A., Baker-Ward, L., Bauer, P., Fivush, R., & Ornstein, P. A. (2011). Coherence of personal narratives across the lifespan: A multidimensional model and coding method. *Journal of cognition and development*, *12*(4), 424-462. https://doi.org/10.1080/15248372.2011.587854

Sajjadi, S. F., Gross, J., Sellbom, M., & Hayne, H. (2022). Narrative identity in borderline personality disorder. *Personality Disorders: Theory, Research, and Treatment*, *13*(1), 12. https://psycnet.apa.org/doi/10.1037/per0000476

See, A. Y. , Klimstra, T. A. , Shiner, R. L. & Denissen, J. A. (2021). Linking Narrative Identity With Schizotypal Personality Disorder Features in Adolescents. *Personality Disorders: Theory, Research, and Treatment, 12* (2), 182-192. https://psycnet.apa.org/doi/10.1037/per0000414

Sharp, C. (2020). Adolescent personality pathology and the Alternative Model for Personality Disorders: Self-development as nexus. *Psychopathology*, *53*(3), 198-204. https://doi.org/10.1159/000507588

Shiner, R. L., Klimstra, T. A., Denissen, J. J., & See, A. Y. (2021). The development of narrative identity and the emergence of personality disorders in adolescence. *Current Opinion in Psychology*, *37*, 49-53. https://doi.org/10.1016/j.copsyc.2020.07.024

Singer, J. A., Blagov, P., Berry, M., & Oost, K. M. (2013). Self-defining memories, scripts, and the life story:

Narrative identity in personality and psychotherapy. *Journal of personality*, *81*(6), 569-582. https://doi.org/10.1111/jopy.12005

Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Salazar de Pablo, G., Shin, J. I., Kirkbride, J. B., Jones, P., Kim, J. H., Kim, J. Y., Carvalho, A. F., Seeman, M. V., Corell, C. U., & Fusar-Poli, P. (2022). Age at onset of mental disorders worldwide: large-scale meta-analysis of 192 epidemiological studies. *Molecular psychiatry, 27*(1), 281-295. https://doi.org/10.1038/s41380-021-01161-7

Syed, M., & McLean, K. C. (2021). Master narrative methodology: A primer for conducting structural-psychological research. *Cultural Diversity and Ethnic Minority Psychology*. https://psycnet.apa.org/doi/10.1037/cdp0000470

Syed, M., & Nelson, S. C. (2015). Guidelines for establishing reliability when coding narrative data. *Emerging Adulthood*, *3*(6), 375-387. https://doi.org/10.1177/2167696815587648

Taylor, S. E. (1991). Asymmetrical effects of positive and negative events: The mobilization minimization hypothesis. *Psychological Bulletin*, 110, 67-85. https://doi.org/10.1037/0033-2909.110.1.67

Vanderveren, E., Bogaerts, A., Claes, L., Luyckx, K., & Hermans, D. (2021). Narrative coherence of turning point memories: Associations with psychological well-being, identity functioning, and personality disorder symptoms. *Frontiers in Psychology*, *12*, 623903. https://doi.org/10.3389/fpsyg.2021.623903

Waugh, M. H., Hopwood, C. J., Krueger, R. F., Morey, L. C., Pincus, A. L., & Wright, A. G. (2017). Psychological assessment with the DSM–5 Alternative Model for Personality Disorders: Tradition and innovation. *Professional Psychology: Research and Practice*, *48*(2), 79. https://psycnet.apa.org/doi/10.1037/pro0000071

World Health Organization. (2019). *International statistical classification of diseases and related health problems* (11th ed.). https://icd.who.int

SUPPLEMENTARY MATERIAL

Table A1. *Reliability scores for trait facets and domains of PID-5-100*

Trait facets/domains	Cronbach's alpha	N items
Anxiousness	.855	4
Emotional lability	.833	4
Separation Insecurity	.798	4
Anhedonia	.794	4
Intimacy avoidance	.823	4
Withdrawal	.688	4
Eccentricity	.823	4
Perceptual dysregulation	.644	4
Unusual beliefs	.723	4
Deceitfulness	.817	4
Grandiosity	.734	4
Manipulativeness	.787	4
Distractibility	.907	4
Impulsiveness	.880	4
Irresponsibility	.637	4
Attention seeking	.863	4
Callousness	.835	4
Depressivity	.890	4
Hostility	.800	4
Perseverance	.724	4
Restricted Affectivity	.679	4
Rigid Perfectionism	.785	4
Risk taking	.877	4
Submissiveness	.838	4
Suspiciousness	.779	4
Negative Affectivity	.871	12
Detachment	.824	12
Antagonism	.842	12
Disinhibition	.891	12
Psychoticism	.866	12

Table A2. *Means and SD's Personality Functioning and Maladaptive Personality Traits*

	M	*SD*
Self-functioning	1.89	.67
Interpersonal functioning	1.09	.63
Total functioning	1.49	.55
Negative Affectivity	1.72	.68
Detachment	1.11	.55
Antagonism	.46	.51
Disinhibition	1.34	.61
Psychoticism	.89	.58

Table A3. *Means and SD's Trait Facet Profiles*

	M	*SD*
BPD Profile	1.44	.52
Antisocial Profile	.82	.52
Avoidant Profile	1.32	.51
Narcissistic Profile	.58	.56
Obsessive Compulsive Profile	1.37	.62
Schizotypal Profile	1.00	.47

Table A4. *Means and SD's of Narrative Characteristics*

	M	*SD*
Valence	.53	.76
Contextual Coherence	1.37	1.11
Thematic Coherence	1.16	.71
Connection Valence	.85	.78
Agency	.74	.87
Communion	.48	.73

Table A5. *Theme Frequencies*

Theme	**Frequency**
Achievement	13.8%
Relation	45.1%
Religion	.9%
Sexuality	.9%
Health	16.5%
The self	8.5%
School (start/transition)	2.2%
Other	9.8%
No codable theme	2.2%
Total	100%

Table A6. *Correlations between personality functioning, maladaptive personality traits and trait facet profiles*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Interpersonal functioning	1	.42[a]	.86[a]	.54[a]	.41[a]	.13[a]	.37[a]	.46[a]	.61[a]	.26[a]	.52[a]	.10[b]	.40[a]	.48[a]
2. Self-functioning		1	.83[a]	.43[a]	.36[a]	.44[a]	.47[a]	.54[a]	.60[a]	.56[a]	.42[a]	.40[a]	.46[a]	.63[a]
3. Total Functioning			1	.58[a]	.46[a]	.33[a]	.50[a]	.59[a]	.72[a]	.48[a]	.56[a]	.29[a]	.51[a]	.65[a]
4. Negative Affectivity				1	.17[a]	.08	.30[a]	.44[a]	.81[a]	.19[a]	.48[a]	.21[a]	.49[a]	.39[a]
5. Detachment					1	.13[a]	.18[a]	.33[a]	.33[a]	.21[a]	.91[a]	-.04	.21[a]	.58[a]
6. Antagonism						1	.48[a]	.44[a]	.34[a]	.81[a]	.10[b]	.74[a]	.21[a]	.45[a]
7. Disinhibition							1	.48[a]	.65[a]	.77[a]	.21[a]	.40[a]	.32[a]	.47[a]
8. Psychoticism								1	.60[a]	.54[a]	.42[a]	.31[a]	.41[a]	.88[a]
9. BPD Profile									1	.63[a]	.52[a]	.31[a]	.51[a]	.62[a]
10. Antisocial Profile										1	.18[a]	.55[a]	.28[a]	.57[a]
11. Avoidant Profile											1	.01	.35[a]	.62[a]
12. Narcistic Profile												1	.23[a]	.26[a]
13. Obsessive Compulsive Profile													1	.40[a]
14. Schizotypal Profile														1

[a] $p < .001$; [b] $p < .05$

Table A7. *Inter-correlations between narrative characteristics*

	1	2	3	4	5	6	7	8	9
1. Valence	1	-.00	-.16[b]	.07	-.07	.53[a]	-.01	.50[a]	.49[a]
2. Contextual Coherence		1	.25[a]	-.07	-.09	-.07	-.01	-.03	-.05
3. Thematic Coherence			1	-.32[a]	.08	-.05	-.29[a]	.10	-.05
6. Self-Event Connection Valence						1	-.18[b]	.74[a]	.46[a]
7. Life Lesson							1	-.17[b]	-.18
8. Agency								1	.33[a]
9. Communion									1

[a] $p < .001$; [b] $p < .05$

Publication:

Koster, N., De Moor, E. L., Van Aken, M.A.G., Van der Heijden, P.T., Laceulle, O.M. (n.d.) A story telling itself in the living: Relations between narratives and interpersonal problems in a clinical sample of youth. Submitted.

Contribution:

NK, MA, PH and OL conceptualized the APOLO research project and were responsible for data-collection. NK, EM and OL conceptualized this paper. NK and EM analyzed the data. NK wrote the first draft of the manuscript. All authors provided feedback on the manuscript.

Chapter 8

A story telling itself in the living: **Longitudinal relations between narratives and interpersonal problems** in a clinical sample of youth

ABSTRACT

Personal narratives and interpersonal interactions are suggested as 'natural partners' for understanding personality. This study used a clinical sample of youth (N= 293; M_{age}= 19.7) to examine relations between narratives and interpersonal problems concurrently, and a subsample of youth (n= 84) to explore these relations prospectively. Agency and communion in turning point narratives and self-reported interpersonal problems were related concurrently. Youth who narrated more agentic narratives, also narrated more communal narratives and reported less interpersonal problems, specifically, less cold, socially inhibited, overly accommodating problems. Prospective relations were mostly non-significant, except for communal narratives and interpersonal problems which were shown to change in tandem. These findings shed light on narratives and interpersonal problems as natural partners for understanding personality in youth.

"Each person's life is a story that is telling itself in the living" - William Throsby Bridges

Each person's life seems to be driven by two fundamental motives, to get ahead (agency) and to get along (communion) (e.g. Abele, 2022; Chan et al., 2018). These motives are central to how individuals perceive the world and themselves in it, and to how they interact with others. As such, approaches that concern perception (e.g., the narrative identity approach) and social interaction (e.g., the interpersonal approach) are suggested as 'natural partners' in understanding personality (Dunlop et al., 2022). The narrative identity approach posits that individuals are natural storytellers who structure their life, as they perceive it, into internalized stories. These stories shape their sense of self, motives and social behavior, and provide unity, purpose and direction (McAdams & McLean, 2013). The interpersonal approach posits that personality is fundamentally expressed socially, in intra- and interpersonal interactions between the self and the other (Pincus et al., 2020; Wright et al., 2022). This study examined interrelations between narrative identity and interpersonal problems concurrently and prospectively in a clinical sample of youth (i.e., adolescents and emerging adults). The focus on these 'natural partners' to understand personality in this developmental phase is relevant, because 1) narrative identity construction becomes explicit (McAdams & McLean, 2013), 2) there is a heightened sensitivity for interpersonal interactions (Collins & Laursen, 2004), and 3) personality pathology, with interpersonal problems as a key component, often emerges (Solmi et al., 2022). Thus, these approaches as 'partners' may provide insight in (the development of) personality in general and (the onset of) personality pathology in particular (Pincus et al., 2020; Wright et al., 2022).

Agency and communion

The fundamental needs for agency and communion can be traced back to an evolutionary history, in which individuals lived in groups and evolved to be both agentic actors and observant communalists (Abele, 2022; Chan et al., 2018). The need to get ahead is reflected in the desire to strive for expansion, competence, achievement and to acquire social dominance or power. The need to get along is reflected in the desire for contact, love, warmth, morality and the preservation of social bonds (Fournier, 2004). These needs for getting ahead and getting along are thought to be partly genetically heritable, and expressed in many different aspects of human individuality such as personality traits, motives, values and behavior (Bleidorn et al., 2010; Entringer et al., 2022; Hopwood et al., 2021).

In this study we conceptualize agency and communion as social motives that lead one to approach or avoid getting ahead or along (Neel et al., 2016). Individuals in all developmental stages encounter specific tasks which fundamentally involve the

satisfaction of agentic and communal needs (Hassan & Bar-Yam, 1987). For example, role identification versus role confusion and belongingness versus alienation are developmental tasks that may satisfy or frustrate agentic and communal needs in adolescence (Maree, 2021). Individuals with a history of frustrated bids for agency or communion may unlearn to strive towards achieving personal goals or to seek connection and love (Locke, 2015). Consequently, this could change their perception of social situations and it may change the methods with which they aim to satisfy their motives (Hopwood et al., 2021; Pincus et al., 2020). Instead of approaching situations with the desire to get ahead and along, they may avoid striving towards goals or intimacy to protect themselves against failure. Since agency and communion represent such fundamental dimensions of human behavior, it is not surprising that they are part of many approaches to personality, such as the narrative identity and interpersonal approaches (i.e., McAdams & Pals, 2006; Paulhus & Trapnell, 2008).

The narrative identity approach

McAdams's framework of personality development posits that one's narrative identity is an integral part of one's personality (McAdams & Pals, 2006). Narrative identity refers to one's narrative reflection on the self, both in retrospect and prospect. This narrative can be considered a unifying structure that integrates the past, the present and the future (McAdams & McLean, 2013). Agentic and communal motives are central superordinate themes that are recognizable in natural language and in personal narratives (McAdams et al., 1996; Pietraszkiewicz et al., 2019). The satisfaction or frustration of the needs to get ahead or along are often subject of personal stories, either separately or in combination. For instance '*Last week I took the decision to open up to my lifelong best friend about my struggles, which was such a relief. With her support I dared to go to the student psychologist*' speaks of high perceived agency and communion. Whereas '*I don't know what to do with my life, day after day goes by and I just sit in my bedroom, alone. I don't have anyone to talk to*' speaks of low perceived agency and communion. Motives to approach or avoid satisfying agentic and communal needs play a role in meaning making and construction of these stories.

Importantly, satisfaction of agentic and communal needs is not a factual given of one's actual number of achievements or close ties, but is mostly a matter of subjective experience (Ghaed & Gallo, 2006). In that sense, whether the person telling the latter story actually has '*no one to talk to*' (no family member, friend or roommate) is unknown and unimportant; it is the perception, of loneliness in this case, that colors behavior, experience, interpretation of situations, self-image, and the personal story (McAdams & McLean, 2013).

The interpersonal approach

The interpersonal approach theorizes how past social experiences shape future interpersonal interactions and mental representations of these interactions (Hopwood et al., 2021; Pincus & Wright, 2012). Personal motives for agency and communion define and shape these interactional patterns over time, such that these constitute one's personality 'in action'. For instance, at a party, one person may be at the center of attention all night talking to every person in the room, whereas another person may be quiet in a corner observing the dance floor and only talking to the host briefly. Whether these individuals leave the party with satisfied and rewarded or frustrated and disappointed needs for agency and communion depends on their motives and past experiences. Interpersonal experiences throughout the lifespan shape interpersonal learning and selection of social behaviors (Pincus & Hopwood, 2012). Past social experiences may have satisfied or frustrated needs for agency and communion and have led one to try out, select, and adopt behaviors to approach or avoid achievement or connection in the future.

A narrative and interpersonal approach to personality development, and Personality pathology

The narrative identity and interpersonal approaches describe how personality is expressed in stories and interpersonal interactions, which are both shaped by personal motives for agency and communion. Despite this similarity, the scientific fields of narrative identity as an integral part of personality and interpersonal dynamics of personality have developed largely separate from each other, with only occasional cross-cuttings (Kuper et al., 2021). Recently, it has been suggested that these perspectives seem 'natural partners' for understanding personality (Dunlop et al., 2022), whereby they may also shed light on (mal)-adaptive personality development and -pathology (Dunlop et al., 2022; Luyten & Fonagy, 2022).

When it comes to personality development, narrative identity, and interpersonal interactions, the developmental phase of youth seems crucial. One of the most critical changes in adolescence is the gain of cognitive capacities that are required to construct a narrative identity (McAdams & McLean, 2013). The social context, in which interactions with peers become increasingly important, prompts questions like 'Who am I?' and 'What do I want to achieve?' that fit the developmental task of (narrative) identity development. Furthermore, youth are confronted with social challenges like gaining independence from parents (agency) and peer acceptance and connectedness (communion) (Meisel et al., 2021). Adaptive social interactions seem required to take on adult roles successfully (Bender, 2019; Hassan & Bar-Yam, 1987). However, many individuals struggle with mastering these challenges, some just temporarily (Nelson et al., 2017; Van den Akker et al., 2021), others severely and long-term (Achterhof

et al., 2022; Sharp & Wall, 2018). The importance of adaptive meaning making in the context of heightened interpersonal sensitivities may play a role in the development of personality pathology (Schreuder et al., 2020; Shiner et al., 2021) and their co-consideration may therefore shed light on pathways of maladaptive personality development.

Concerning personality pathology, individuals with personality pathology typically struggle with both adaptive meaning making and interpersonal situations (Adler & Clark, 2019; Girard et al., 2017). From a narrative approach, less agentic and communal stories are found to be related to a range of personality disorders (PDs) (Lind et al., 2020; Shiner et al., 2021), such as borderline PD (Sajjadi et al., 2022), and schizotypal PD (See et al., 2021). From an interpersonal approach, it has consistently been found that individuals with PDs report more maladaptive behavioral strategies to satisfy their needs for agency and communion than individuals without PDs (Girard et al., 2017; Hopwood et al., 2021). Furthermore, increased subjective agency and communion in narratives following therapy has been related to symptom improvement and increased well-being (Adler et al., 2016; Jennissen et al., 2022; Lind et al., 2019) Similarly, focus on adopting effective and adaptive interpersonal strategies to satisfy agentic and communal needs is an important part of psychotherapy (Huber et al., 2021; Pincus et al., 2020).

This study

Following the suggestion that narrative identity and interpersonal interactions may be natural partners in understanding personality, personality development, and -pathology, this study assessed personal narratives and interpersonal problems in a clinical sample of youth. Specifically, we examined whether and how agency and communion as coded in turning point narratives and self-reported interpersonal problems are related concurrently. We hypothesized, in our sample of youth with severe psychopathology, that higher levels of agency and communion were related to lower levels of interpersonal problems. Further, in a small subsample, prospective relations between narratives and interpersonal problems were examined exploratively. We considered continuity, correlated change, and predictive relations. That is, whether agency, communion and interpersonal problems would be related over time, whether levels of agency and communion and levels of interpersonal problems would change in tandem, and whether agency and communion in narratives would predict interpersonal problems, or vice versa.

METHODS

Participants and setting

This study used data of 293 individuals, between 13 and 24 years (M_{age} = 19.7, SD = 2.01, 75% self-identified females) from an ongoing longitudinal study in an outpatient mental health care sample of youth in The Netherlands (Koster et al., 2022). Patients are referred to this mental health care center by their general practitioner for diagnostic assessment and treatment of severe mental health problems. Data collection is integrated in the routine outcome monitoring, with assessment of several self-report questionnaires every six months, in addition to a semi-structured interview about a turning point questionnaire. This study was approved by the ethical committees of the university faculty and the mental health care center in which data collection took place (FETC17-092). The primary DSM-5 diagnoses of the 293 participants in this study, receiving care as usual, were: a PD (40%), a mood disorder (37%), a developmental disorder (14%) or another disorder (9%).

For the explorative prospective analyses we used a subsample of patients for whom data was available in one of the five follow-up waves. We merged all narrative follow-up data together, resulting in a subsample of 84 individuals with both narratives and self-report data at two timepoints. These youth all had a score on agency. For 16 individuals it was coded that their narrative did not contain any communal theme, therefore 68 individuals also had a score on communion. There were individual time differences between the first and the second timepoint; the narrative theme and interpersonal problems were always assessed at the same timepoint for an individual. For most individuals this lag between measurements was 6-12 months (agency: 66%; communion 69%), for others it was up to 24 months. The data for this study are not publicly available due to privacy and ethical restrictions, but they are available on request from the first author.

Measures

Personal narratives. Youth were asked to elaborate on their written answer to the question 'What has been a turning point in your life?' in a semi-structured interview conducted by trained professionals. They were asked to narrate about this turning point along 4 questions 1) 'What is the turning point event that you have experienced?', 2) 'What did you feel, think and want during this event?', 3) 'Why is this an important event in your life story?', and 4) 'Does this event say something about who you are now or how you see yourself in the future?'. The narratives were transcribed and coded for agency and communion. Coding manuals for these constructs are provided in supplementary material A.

Agency was coded with an adaption of the coding system as described by Adler (2012). Agency was coded on a 3-point Likert scale, ranging from low (0) to high (2) agency. Agency was coded with an excellent inter-rater reliability across all narratives (Intra-Class Correlation (ICC) = .86). Communion was coded with a coding system adapted from a coding system as described by Adler (2012). Communion was coded on a 4-point Likert scale, ranging from low (0) to high (3) communion. Communion was coded with an excellent inter-rater reliability (ICC = .84). When narratives contained no relevant information on a certain theme, that particular theme was coded as missing in that narrative.

Interpersonal problems. The Inventory of Interpersonal Problems (IIP-32) was used to assess interpersonal problems (Horowitz et al., 2000; Vanheule et al., 2006). The IIP-32 is a 32-item self-report questionnaire on which individuals are asked to indicate on a 5-point Likert scale to which extent statements describe them (0 = not at all – 4 = very much). These statements concern 20 items about difficulties in contact with others (i.e., it is difficult for me to say no to other people) and 12 items about things one does too much (i.e., I am too aggressive to others). Next to a total scale score, 8 subscales can be constructed: domineering, intrusive, overly nurturing, exploitable, nonassertive, socially inhibited, cold and vindictive[1]. Reliability of the total interpersonal problems scale was (over the six waves of data collection of the APOLO research project) .92 (W1), .89 (W2), .85 (W3), .89 (W4), .89 (W5), .89 (W6). Reliabilities of the subscales ranged between .63 and .87 (W1), .70 and .81 (W2), .55 and .86 (W3), .66 and .86 (W4), .64 and .81 (W5), .46 and .86 (W6).

Analytical plan

Descriptive and correlational analyses were performed in SPSS Statistics 28. Concurrent, autoregressive, and predictive associations were calculated in Mplus version 8.8 (Muthén & Muthén, 1998-2017). To examine the unique effects of agency and communion *concurrently* (i.e., controlling for the effect of the other theme), we first tested two models with interpersonal problems regressed on agency and communion as coded from turning point narratives, using data of the complete sample (N = 293) at the first timepoint (T1). These analyses examined agency and communion in relation to the ten subscales of the IIP-32, and separately to the IIP-32 total score. To examine the unique effects of the interpersonal problem subscales concurrently (i.e., controlling for the nine other subscales), we also ran this model with the relations specified in the opposite direction: agency and communion as coded from turning

1 Originally (Horowitz et al., 2000) agency and communion have also been measured with the IIP-32. However, because the IIP-32 captures an individual's most salient perceived interpersonal difficulties and, in our opinion, not necessarily motives, these underlying dimensions were not used in this study.

point narratives regressed on interpersonal problems. In all models we controlled for participant age at T1.

Second, to explore these relations prospectively, two models specifying prospective relations in both directions were run for agency and communion separately, using data from participants who had available data at the second timepoint (T2; n = 84 (agency) and n = 68 (communion)). We only used the total scores on the IIP-32 in order to reduce model complexity and the amount of tests because of the small sample size. In particular, we tested a model for agency and the total IIP-32 score, and a model for communion and the total IIP-32 score. Autoregressive (i.e., effect of one variable at T1 on itself at T2) and cross-lagged (i.e., effect of one variable at T1 on another at T2) pathways were included. We also included covariances of agency and communion with the IIP-32 total score at T2. These models on longitudinal data were controlled for participant age at T1 and individual time differences between measurements.

For all models, a cutoff of $p < .05$ was used to determine significance of effects. Benchmarks set by Cohen (1988) were used to interpret effect sizes of correlational results (i.e., associations (r) of .10 considered weak, medium, and .50 strong). Benchmarks set by and Funder and Ozer (2019) were used to evaluate the size of regression coefficients (i.e., standardized effects (β) of .05 considered very small, .10 small, .20 medium, and 0.30 large).

RESULTS

Descriptive statistics and correlations

Means and standard deviations of the constructs at T1 and T2 and correlations between the constructs at T1 are presented in Table 1. Correlational results indicated that individuals who narrate more agentic turning point events on average also narrate more communal turning point events. Furthermore, individuals who narrate more agentic and communal turning point events report lower levels of general interpersonal problems. Specifically, individuals who narrate more agentic turning point events were less likely to report socially inhibited, non-assertive, and overly accommodating problems. In addition, individuals with who narrate more communal turning point events were less likely to report domineering, cold, socially inhibited and non-assertive problems. Finally, most interpersonal problems are interrelated in the expected directions.

Table 2 presents correlational results between agency, communion and interpersonal problems at T1 and T2. These findings indicate that individuals who narrate more agentic and communal turning point events T1 are more likely to also narrate more

agentic and communal turning point events at T2 respectively. However, even though agency and communion are moderately and significantly positive related at T1, they are not significantly related at T2. Furthermore, agency and communion at T2 appeared not significantly related to interpersonal problems at T2.

Concurrent relations

To examine the separate effects of agency and communion on interpersonal problems, a path model was specified in which agency and communion as coded from narratives explained variance in specific interpersonal problems and, separately, general interpersonal problems (see Table 3). Results indicated that agency scores were associated with overly accommodating interpersonal problems (β = -.17). Communion scores were associated with cold (β = -.30), socially inhibited (β = -.19) and general interpersonal problems (β = -.26). In particular, individuals who narrated more agentic turning point events on average reported less overly accommodating interpersonal problems, whereas individuals who narrated more communal turning point events reported less cold and socially inhibited problems in addition to less interpersonal problems in general. Agency and communion scores explained 10% of the variance in general interpersonal problems and between 2% and 9% of variance in the specific interpersonal problems. Results indicated no significant age effects.

Then, to examine the separate effects of specific interpersonal problems, a path model was specified with relations in the opposite direction. Results indicated that cold interpersonal problems were related to having lower communion scores (β = -.27). Further, results confirmed in this opposite direction that general interpersonal problems were related to both agency (β = -.18) and communion (β = -.28) scores. General interpersonal problems and specific interpersonal problems explained 4% and 7% of the variance in agency scores and 8% and 11% of the variance in communion scores respectively.

Table 1. *Means and SD's of Agency, Communion and IIP-32 scales at T1 and T2, and correlations at T1*

	T1		T2		1	2	3	4	5	6	7	8	9	10	11
	M	***SD***	***M***	***SD***											
1. Agency	.74	.87	.93	.84	1	.34[b]	-.04	-.06[c]	-.09[c]	-.18[c]	-.22[c]	-.15[c]	-.08[c]	-.02	-.18[c]
2. Communion	1.33	.89	1.55	.83		1	-.16[c]	-.14[c]	-.29[b]	-.16[c]	-.17[c]	-.15[c]	-.11[c]	-.09[c]	-.28[b]
3. Domineering	4.61	3.61					1	.34[b]	.16[c]	-.00	-.13[c]	-.15[c]	.07[c]	.36[b]	.35[b]
4. Self-Centered	3.17	3.41						1	.46[a]	.25[b]	.18[a]	.11[c]	-.10[c]	.25[b]	.53[a]
5. Cold	5.56	3.65							1	.60[a]	.36[b]	.32[b]	.15[c]	.01	.67[a]
6. Socially Inhibited	6.41	3.95								1	.52[a]	.38[b]	.22[c]	.03	.67[a]
7. Non-Assertive	6.27	3.58									1	.68[a]	.42[b]	.16[c]	.70[a]
8. Overly Accommodating	6.89	3.65										1	.60[a]	.16[c]	.67[a]
9. Self-Sacrificing	7.80	3.56											1	.14[c]	54[a]
10. Intrusive	3.74	3.49												1	.45[b]
11. Total IIP-32	44.45	16.64	38.86	15.73											1

[a] = $p < .001$; [b] = $p < .05$; Effect sizes: [a] Strong ($r > .45$), [b] Medium ($.25 < r < .45$), [c] Weak ($.05 < r < .25$), based on benchmarks by Cohen (1988, 1992)

Table 2. *Correlations Agency, Communion and Total Interpersonal Problems T1 and T2*

	1	2	3	4	5	6	7
1.Agency T1	1	.34[a]	-.18[b]	.47[a]	.09	-.06	-.25
2.Communion T1		1	-.28[a]	.04	.47[a]	-.23	-.23
3.Total IIP-32 T1			1	-.16	-.16	.55[a]	.49[a]
4.Agency T2				1	.07	-.12	-.20
5.Communion T2					1	.05	.04
6. Total IIP-32 T2 Agency						1	.99
7. Total IIP-32 T2 Communion							

Note. because the sample sizes at T2 differed slightly for agency (n = 84) and communion (n = 68), the correlations with IIP-32 scores at T2 also differed slightly.
[a] = $p < .001$; [b] = $p < .05$; Effect sizes: [a] Strong ($r > .45$), [b] Medium ($.25 < r < .45$), [c] Weak ($.05 < r < .25$), based on benchmarks by Cohen (1988, 1992)

Table 3. *Predictive relations in both directions at T1*

		Agency			Communion		
		β	***SE***	***p***	***β***	***SE***	***P***
Ag/Com→ IIP	Domineering	.05[d]	.09	.563	-.17[b]	.09	.050
	Self-Centered	.01[d]	.09	.936	-.14[c]	.09	.124
	Cold	-.00	.09	.988	-.30[a]	.08	**.000**
	Socially Inhibited	-.14[c]	.09	.107	-.19[b]	.09	**.033**
	Non-Assertive	-.14[c]	.09	.107	-.16[b]	.09	.067
	Overly Accommodating	-.17[b]	.09	**.048**	-.13[c]	.09	.146
	Self-Sacrificing	-.08[d]	.09	.405	-.09[c]	.09	.338
	Intrusive	-.06[d]	.09	.483	-.09[c]	.09	.338
	Total	-.11[c]	.09	.190	-.26[a]	.08	**.002**
	Age	.00	.08	.991			
	R^2	.10[c]	.05	.037			
IIP→ Ag/Com	Domineering	-.02[d]	.09	.217	-.15[c]	.09	.075
	Self-Centered	.01[d]	.10	.882	.05[d]	.10	.578
	Cold	.05[d]	.10	.650	-.27[a]	.10	**.007**
	Socially Inhibited	-.08[c]	.10	.425	.04[d]	.10	.658
	Non-Assertive	-.21[b]	.11	.067	-.12[c]	.12	.309
	Overly Accomodating	-.04[d]	.12	.742	.01[d]	.12	.940
	Self-Sacrificing	.02[d]	.10	.865	-.05[d]	.10	.635
	Intrusive	.08[c]	.08	.359	.01[d]	.09	.917
	Total	-.18[b]	.07	**.013**	-.28[a]	.07	**.000**
	Age	.06[d]	.07	.413	-.00	.08	.984
	R^2	.04[d]	.03	.181	.08[a]	.04	.058

Note. '→' = predicting; All outcomes were controlled for age; Analyses for the subscales and total scale were performed separately. Effect sizes: [a] Large ($\beta > .25$), [b] Medium ($.15 < \beta < .25$), [c] Small ($.05 < \beta < .15$), [d] Very small ($\beta < .05$) based on benchmarks by Funder and Ozer (2019)

Table 4. *Predictive relations in both directions at T2*

		Agency			Communion		
		β	***SE***	***p***	***β***	***SE***	***P***
Autoregressive		.39[a]	.11	**.000**	.41[a]	.13	**.001**
	IIP-32 total	.54[a]	.14	**.000**	.44[a]	.20	**.025**
Predictive	Ag/Com→IIP	.35[a]	.14	.287	.02[d]	.19	.901
	IIP→ Ag/Com	-.21[b]	.12	.078	-.15[c]	.14	.281
	Age	.03[d]	.12	.783	-.14[c]	.13	.286
	Time Dif.	.03[d]	.11	.819	-.05[d]	.13	.704
Correlated Change	IIP-32 total	.06[d]	.17	.742	.40[a]	.16	**.013**

Note. '→' = predicting; All outcomes were controlled for age and time differences; Analyses for agency and communion were performed separately. Effect sizes: [a] Large (β >.25), [b] Medium (.15 < β < .25), [c] Small (.05 < β <.15), [d] Very small (β < .05) based on benchmarks by Funder and Ozer (2019)

Prospective relations

Finally, prospective autoregressive and cross-lagged relations were explored separately for agency and communion with interpersonal problems, controlling for age and for individual differences in times between assessments (see Table 4). Results revealed significant autoregressive effects for agency, communion, and general interpersonal problems (β = .39, .41, and .54/.44[2], respectively). In particular, individuals with higher levels of agency, communion and interpersonal problems at T1 generally also scored higher at T2. There were no significant cross-lagged effects in either direction. However, results did show correlated change between communion and general interpersonal problems (β = .40), indicating that if levels of communion in turning point narratives change, levels of interpersonal problems also change parallel. There was no correlated change between agency and general interpersonal problems. Results indicated no significant age or time difference effects. Notable, caution is needed in the interpretation of any of the prospective findings given the small sample size.

2 Two estimates for the autoregressive coefficient of interpersonal problems was available, as this pathway was included in the model with agency and the model with communion.

DISCUSSION

We started with a quote by William Throsby Bridges '*Each person's life is a story that is telling itself in the living*'. In this study, we aimed to gain insight in the stories and interpersonal 'living' of youth and whether their lives are indeed 'stories that are telling itself in the living' or in turn, or in addition, 'a living that is being told in a story'. In other words, we examined if agency and communion in turning point narratives were related to interpersonal problems concurrently and – in a small subsample - prospectively. To the best of our knowledge this study was one of the first to examine these relations in a clinical sample of youth. This is a relevant group because during this developmental phase narrative identity becomes explicit (McAdams & McLean, 2013) and interpersonal relations more salient (Collins & Laursen, 2004), both of which may shape personality development adaptively or maladaptively (Shiner et al., 2021).

Stories and interpersonal problems of youth

First, concerning the stories youth narrate. Our results indicated that, in a clinical sample of youth, agency and communion are related narrative constructs; those who narrated stories with more agency also narrated stories with more communion. Despite these terms being initially introduced as seeming opposites (Bakan, 1966: '*Agency manifests itself in the urge to master; communion in non-contractual cooperation*', p. 15), they are often found to be related (Helgeson & Palladino, 2012; McAdams et al., 1996). It has been suggested that satisfaction of both agentic and communal needs is necessary for optimal well-being, the absence of one of the two or both generally results in a broad range of suboptimal life outcomes (Helgeson, 1994). Indeed, emotionally well-adjusted individuals seem able to satisfy both their needs for getting ahead and along, and to narrate highly agentic and communal stories (Fournier, 2004; Frimer et al., 2011). In contrast, poorly adjusted individuals, like those with personality pathology, are often found to narrate stories with thwarted themes of both agency and communion (Jensen et al., 2021; Lind et al., 2020). As such, our results are in line with the latter findings and provide support that these can be extended to a clinical sample of youth. However, despite agency and communion in turning point stories being interrelated at the first timepoint, they were not interrelated at a second timepoint. An explanation for this finding may be the smaller longitudinal sample, which could have made it difficult to detect such relations.

Second, considering the interpersonal problems of youth, our results indicated that these were relatively high compared to non-clinical norm-groups (Horowitz et al., 2000). To give some indication of what type of psychological difficulties were predominantly represented in this sample, youth reported the highest mean levels of

self-sacrificing and overly accommodating problems and the lowest mean levels of self-centered and intrusive problems (Gurtman, 2009) . In addition, explorative prospective analyses indicated that both agency, communion and interpersonal problems seemed to show substantial continuity over time (i.e., significant relations with large effect sizes between T1 and T2). The continuity of these narrative elements has been shown before, and provides evidence that personal narratives are integral features of one's identity and personality (Adler et al., 2015; McAdams et al., 2006). The continuity of interpersonal problems seems to reflect interpersonal patterns or dynamics, which are often evident in multiple social situations, hard to change, and frequently the main focus in psychotherapy (Hopwood et al., 2019; McFarquhar et al., 2018).

Stories that are telling itself in the living or a living being told in a story?

The main focus of this study was to examine the narrative and the interpersonal approaches as 'natural partners'. We investigated interrelations between agency and communion in turning point narratives and self-reported interpersonal problems. Our concurrent findings indicated that, in line with our hypotheses and previous studies (Helgeson & Fritz, 2000; Jensen et al., 2021), those who narrated stories with more agency and communion reported lower levels of general and specific interpersonal problems. In particular, youth who narrated stories with more agency were less likely to report non-assertive, overly accommodating, and socially inhibited problems. Furthermore, youth who narrated stories with more communion were less likely to report cold, socially inhibited, non-assertive, and domineering interpersonal problems. The findings that youth who narrate stories with more agency report less problems related to non-assertiveness and that youth who narrate stories with more communion report less problems related to coldness seem most substantial with medium-high effect sizes ($r > .20$).

The results from the cross-sectional path models, investigating the separate effects of agency and communion while controlling for the other theme, were generally in line with these correlational results, showing that agency and communion in turning point narratives of youth were related to interpersonal problems. Moreover, corroborating correlational patterns, this was most evident (in terms of consistency over analyses and effect sizes) for communion. Communion in turning point narratives was specifically related to cold and socially inhibited interpersonal problems. This means that individuals who evidence satisfied needs for connectedness in their personal narratives, on average will have less problems in interpersonal interactions and particularly tend to show higher degrees of affection for others and feel less anxious or avoidant in the presence of others (Vanheule et al., 2006). In addition, findings concerning agency indicated that demonstrating a sense of control and self-directedness in turning point narratives was related to less overly accommodating problems. Similarly, in

the reversed direction, general interpersonal problems were related to narrating both more agentic and more communal narratives, and particularly coldness was related to narrating more communal narratives. Notably, the relation between communion in narratives, general interpersonal problems, and coldness was consistent across models, suggesting that, in this sample of a clinical sample of youth, this 'natural partnership' was most evident. This is informative, given the findings of empirical studies among community youth and older adults (Dowgwillo et al., 2018; Stone & Segal, 2022) and a meta-analytic review (Wilson et al., 2017), in which – of all interpersonal problems - interpersonal coldness is found to be particularly negatively related to adaptive personality functioning. As such, this 'natural partnership' between communion in narratives and coldness may shed light on what seems an important aspect of maladaptive personality, or pathology. Speculating, it may be that this coldness, which is related to low communion, combined with non-assertiveness, which is related to low agency, is reflective of the 'passive patient role' often observed in individuals with severe personality pathology (Arntz, 2012; Wilson et al., 2017).

However, the exploration of prospective relations did not provide support for any predictive interrelations over time. While agency and communion in stories and interpersonal problems showed continuity over time, they did not predict each other. Notable, these analyses were based on a small sample, and as such power issues may play a large role in the (lack of) findings (see below). At the same time, it may be that our findings reflect true associations. In that case, it may be that the back and forth influence of 'the stories and the living' of youth and vice versa plays out on a much smaller time scale than is captured in these data, spanning months to years. Indeed, it is possible that stories and interpersonal behavior are more intertwined, such that continuous small adjustments in meaning making and interpersonal behavior have a reciprocal influence daily (Grönlund, 2011; Phillips, 2003). Our findings show some support for this suggestion, since communion in narratives and interpersonal problems appeared to co-develop, they showed correlated change. As meaning making of social situations change, such that individuals narrate more communal life events, interpersonal problems change in tandem. Longitudinal studies that consider narratives and interpersonal functioning, especially in clinical samples of youth, are scarce. However, this finding is in line with longitudinal studies in clinical adult samples whom, after treatment, both narrated more communal narratives and experienced less interpersonal difficulties (Adler et al., 2015; Jasper, 2017), and with longitudinal studies using identity questionnaires instead of narrative data (Aubé, 2007; Horne et al., 2020). It is important that future studies will test the interrelations of these possibly intertwined constructs both with larger longitudinal samples and with varying time intervals, for instance in a daily dairy study.

Stories and interpersonal problems in the context of personality development and -pathology

The findings of the interrelations between agency and communion in narratives and self-reported interpersonal problems underscore the relevance of the co-consideration of narratives and interpersonal behavior for understanding personality (Dunlop et al., 2022). Based on our results and previous evidence, it seems that narratives with low agency and communion, which reflect frustration in the central motives to get ahead and along, are interrelated with a lack of adaptive strategies to satisfy these needs (Abele, 2022).

Not being able to satisfy agentic and communal needs is likely to have consequences for personality development. In the developmental phase of youth, meaning making through narratives has been found to predominantly fulfill a self-explanatory function, facilitating self-understanding (McLean, 2005; McLean & Pratt, 2006). A social context in which one experiences many interpersonal difficulties may lead one to construct a maladaptive self-defining narrative identity to 'explain' this context, in turn contributing to maladaptive interpersonal behavior. As such, maladaptive meaning making and interpersonal behavior may become interwoven 'self-fulfilling prophecies' (Almadi, 2022).

In addition, not being able to satisfy needs may be reflected in intra- (agency) and interpersonal- (communion) dis-functioning (also termed 'criterion A' in the Alternative Model of Personality Disorders of the DSM-5; APA, 2013) which are key aspects of personality problems (Bender, 2019; Shiner et al., 2021; Widiger et al., 2019). Personal narratives and interpersonal behavior may reflect and explain such dis-functioning. In this study we did not include a measure of personality pathology, but future studies should so include a focus on personality pathology to test this hypothesis. Narratives may be thought of as self-explanatory organizing units that shape motives, perception, and behavior, and when maladaptive (e.g., being characterized by low agency and communion), can lead one to behave maladaptively (e.g., coldly or overly accommodating). As such, and also suggested by our findings, maladaptive narratives and maladaptive interpersonal dynamics seem interwoven, and this negative spiral may underly personality disorders and maintain self-pathology (Dimaggio et al., 2006).

However, the natural partnership between stories and interpersonal behaviors may also be favorable for development and pathology: successful psychotherapeutic interventions have been shown to alter both personal narratives and interpersonal motives and behavior, decreasing symptom severity and distress (Adler et al., 2015; McFarquhar et al., 2018). Notable is that in studies with adult patients, increases in agency are pre-

dominantly important for decreases in psychological distress and symptoms (Adler, 2012; Jensen et al., 2021; Lind et al., 2019). Our findings in a clinical sample of youth provide evidence that in this group communion seems particularly important. This may be explained by the developmental phase these individuals are in, and the associated developmental tasks, in which the social context and interpersonal interactions set the stage for the construction of one's narrative identity (McLean, 2005; Shiner et al., 2021). However, since our findings suggest that stories and interpersonal problems are cross-sectionally related and do not predict each other but change in tandem, it seems that early-interventions in youth should target both narratives and interpersonal problems, instead of one of the two.

Limitations

Despite the unique longitudinal clinical sample of youth and the multi-method dataset with both narratives and self-report questionnaires, this study had some limitations. First, and most obviously, the small size of the longitudinal subsample which made the hypothesized prospective relations possibly difficult to detect. It limits the generalizability of the findings and requires that the prospective results should be interpreted with caution. Future studies could use a larger longitudinal dataset.

Second, there were individual time differences between the first and second timepoint; for most individuals this lag between measurements was six to twelve months, but for some others it was up to 24 months. In the analyses we adjusted for these differences by controlling for time between measurements. However, future studies should preferably use multiple timepoints without or with minimal individual time differences between timepoints, or have large enough samples to account for such differences between timepoints (e.g., via continuous time modeling; Voelkle et al., 2012).

Third, this study used a clinical sample of Dutch adolescents and emerging adults. While this is a relevant group for the aim of this study, to examine and explore relations between narratives and interpersonal problems to increase our understanding of personality, it must be noted that the results of this study are only generalizable to this study population.

Fourth, this study used only self-report data. Moreover, it is important to keep in mind that both narratives and report of interpersonal problems reflect meaning making of the same individual. Particularly in youth, multi-informant reports are frequently advised to gain a complete understanding of problem behavior, such as interpersonal problems (Shiner & Allen, 2013; Tackett et al., 2013). This study did use a multi-method approach with both quantitative and qualitative data, which is a strength of the present study. In addition, youth were unaware that their narratives

would be coded for agency and communion. Yet, the use of other-report data could add important and interesting information as to where self- and other-perceptions align and whether self-reports reflect self-pathology, with possible 'blind spots' of problems that are not reported by the individual but are reported by informants. These other-reports would be most valuable for interpersonal problems, as personal narratives remain a subjective construct and are likely best captured by self-report.

Conclusion

In this study we examined narratives and interpersonal problems, which are suggested to be 'natural partners' in understanding persons. Specifically, in a clinical sample of youth we assessed agency and communion in turning point narratives and interpersonal problems with a self-report questionnaire at two timepoints. Our findings provide evidence that agency and communion in turning points are related and that agency, communion and interpersonal problems show continuity over time. Further, the results imply that concurrently both statements seem true: 'stories are telling itself in the living' and in turn 'a living is being told in a story'. Cross-sectional analyses showed that agency and communion in stories are meaningfully related to interpersonal problems. These associations were particularly evident for communion and interpersonal problems, which were also shown to change in tandem over time. Prospective analyses did not show any predictive effects. These findings showed the value of co-considering narratives and interpersonal behavior. They led us to suggest that the narratives and interpersonal problems of vulnerable youth are interwoven. As such, they may be natural partners 'for the worse', when maladaptive, or 'for the best', when adaptive. Future studies could provide further evidence for these interrelations and how these 'natural partners' may best be simultaneously targeted in treatment.

REFERENCES

Abele, A. E. (2022). Agency and communion as fundamental dimensions of social judgment – and Bogdan Wojciszke's brilliant idea on perspective. *Social Psychological Bulletin*, *17*, e8157. https://doi.org/10.32872/spb.8157

Achterhof, R., Kirtley, O. J., Schneider, M., Hagemann, N., Hermans, K. S. F. M., Hiekkaranta, A. P., Lecei, A., Decoster, J., Derom, C., De Hert, M., Gülöksüz, S., Jacobs, N., Menne-Lothmann, C., Rutten, B. P. F., Thiery, E., van Os, J., van Winkel, R., Wichers, M., & Myin-Germeys, I. (2022). General psychopathology and its social correlates in the daily lives of youth. *Journal of Affective Disorders*, *309*, 428–436. https://doi.org/10.1016/j.jad.2022.04.147

Adler, J. M. (2012). Living into the story: Agency and coherence in a longitudinal study of narrative identity development and mental health over the course of psychotherapy. *Journal of Personality and Social Psychology*, *102*(2), 367–389. https://doi.org/10.1037/a0025289

Adler, J. M., & Clark, L. A. (2019). Incorporating narrative identity into structural approaches to personality and psychopathology. *Journal of Research in Personality*, *82*, 103857. https://doi.org/10.1016/j.jrp.2019.103857

Adler, J. M., Lodi-Smith, J., Philippe, F. L., & Houle, I. (2016). The Incremental Validity of Narrative Identity in Predicting Well-Being: A Review of the Field and Recommendations for the Future. *Personality and Social Psychology Review*, *20*(2), 142–175. https://doi.org/10.1177/1088868315585068

Adler, J. M., Turner, A. F., Brookshier, K. M., Monahan, C., Walder-Biesanz, I., Harmeling, L. H., Albaugh, M., McAdams, D. P., & Oltmanns, T. F. (2015). Variation in narrative identity is associated with trajectories of mental health over several years. *Journal of Personality and Social Psychology*, *108*(3), 476–496. https://doi.org/10.1037/a0038601

Almadi, S. (2022). The meta-narrative of self-fulfilling prophecy in the different research areas. *Society and Economy*, *44*(2), 254-261. https://doi.org/10.1556/204.2022.00001

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

Arntz, A. (2012). Personality disorders. In M. van Vreeswijk, J. Broersen & M. Nadort (Eds.) *The Wiley-Blackwell handbook of schema therapy: Theory, research, and practice*, (pp. 397-414). https://doi.org/10.1002/9781119962830.ch30

Aubé, J. (2007). Balancing Concern for Other With Concern for Self: Links Between Unmitigated Communion, Communion, and Psychological Well-Being: Unmitigated Communion and Well-Being. *Journal of Personality*, *76*(1), 101–134. https://doi.org/10.1111/j.1467-6494.2007.00481.x

Bakan, D. (1966). The duality of human existence. An essay on psychology and religion. Rand McNally

Bender, D. S. (2019). The P-Factor and What It Means to Be Human: Commentary on Criterion A of the AMPD in HiTOP. *Journal of Personality Assessment*, *101*(4), 356–359. https://doi.org/10.1080/00223891.2018.1492928

Bleidorn, W., Kandler, C., Hülsheger, U. R., Riemann, R., Angleitner, A., & Spinath, F. M. (2010). Nature and nurture of the interplay between personality traits and major life goals. *Journal of Personality and Social Psychology*, *99*(2), 366–379. https://doi.org/10.1037/a0019982

Chan, T., Wang, I., & Ybarra, O. (2018). Connect and Strive to Survive and Thrive: The Evolutionary Meaning of Communion and Agency. In A. Abele & B. Wojciszke (Eds.), *Agency and Communion in Social Psychology* (pp. 13-24). Londen: Routhledge,. https://doi.org/10.31234/osf.io/uv59h

Cohen, J. (1988). Statistical power analysis for the behavioral sciences, 2nd ed. Hillsdale, NJ: Erlbaum.

Collins, W. A., & Laursen, B. (2004). Changing Relationships, Changing Youth: Interpersonal Contexts of Adolescent Development. *The Journal of Early Adolescence*, *24*(1), 55–62. https://doi.org/10.1177/0272431603260882

Dimaggio, G., Semerari, A., Carcione, A., Procacci, M., & Nicolò, G. (2006). Toward a Model of Self Pathology Underlying Personality Disorders: Narratives, Metacognition, Interpersonal Cycles and Decision-Making Processes. *Journal of Personality Disorders*, *20*(6), 597–617. https://doi.org/10.1521/pedi.2006.20.6.597

Dowgwillo, E. A., Roche, M. J., & Pincus, A. L. (2018). Examining the Interpersonal Nature of Criterion A of the *DSM–5* Section III Alternative Model for Personality Disorders Using Bootstrapped Confidence Intervals for the Interpersonal Circumplex. *Journal of Personality Assessment*, *100*(6), 581–592. https://doi.org/10.1080/00223891.2018.1464016

Dunlop, W. L., Lind, M., & Hopwood, C. J. (2022). Synthesizing contemporary integrative interpersonal theory and the narrative identity approach to examine personality dynamics and regulatory processes. *Journal of Personality*, jopy.12707. https://doi.org/10.1111/jopy.12707

Entringer, T. M., Gebauer, J. E., & Paulhus, D. L. (2022). Extracting Agency and Communion From the Big Five: A Four-Way Competition. *Assessment*, *29*(6), 1216–1235. https://doi.org/10.1177/10731911211003978

Fournier, M. A. (2004). *Agency and communion as fundamental dimensions of social adaptation and emotional adjustment*. Available from: https://escholarship.mcgill.ca/concern/theses/c821gm525

Frimer, J. A., Walker, L. J., Dunlop, W. L., Lee, B. H., & Riches, A. (2011). The integration of agency and communion in moral personality: Evidence of enlightened self-interest. *Journal of Personality and Social Psychology*, *101*(1), 149–163. https://doi.org/10.1037/a0023780

Funder, D. C., & Ozer, D. J. (2019). Evaluating Effect Size in Psychological Research: Sense and Nonsense. *Advances in Methods and Practices in Psychological Science*, *2*(2), 156–168. https://doi.org/10.1177/2515245919847202

Ghaed, S. G., & Gallo, L. C. (2006). Distinctions Among Agency, Communion, and Unmitigated Agency and

Communion According to the Interpersonal Circumplex, Five-Factor Model, and Social-Emotional Correlates. *Journal of Personality Assessment*, *86*(1), 77–88. https://doi.org/10.1207/s15327752jpa8601_09

Girard, J. M., Wright, A. G. C., Beeney, J. E., Lazarus, S. A., Scott, L. N., Stepp, S. D., & Pilkonis, P. A. (2017). Interpersonal problems across levels of the psychopathology hierarchy. *Comprehensive Psychiatry*, *79*, 53–69. https://doi.org/10.1016/j.comppsych.2017.06.014

Grönlund, H. (2011). Identity and Volunteering Intertwined: Reflections on the Values of Young Adults. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *22*(4), 852–874. https://doi.org/10.1007/s11266-011-9184-6

Gurtman, M. B. (2009). Exploring Personality with the Interpersonal Circumplex: Exploring Personality with the Interpersonal Circumplex. *Social and Personality Psychology Compass*, *3*(4), 601–619. https://doi.org/10.1111/j.1751-9004.2009.00172.x

Hassan, A. B. Y., & Bar-Yam, M. (1987). Interpersonal development across the life span: Communion and its

interaction with agency in psychosocial development. *Contributions to human development*, *18*, 102-128.

Helgeson, V. S. (1994). Relation of agency and communion to well-being: Evidence and potential explanations. *Psychological bulletin*, *116*(3), 412.

Helgeson, V. S., & Fritz, H. L. (2000). The Implications of Unmitigated Agency and Unmitigated Communion for Domains of Problem Behavior. *Journal of Personality*, *68*(6), 1031–1057. https://doi.org/10.1111/1467-6494.00125

Helgeson, V. S., & Palladino, D. K. (2012). Agentic and Communal Traits and Health: Adolescents With and Without Diabetes. *Personality and Social Psychology Bulletin*, *38*(4), 415–428. https://doi.org/10.1177/0146167211427149

Hopwood, C. J., Pincus, A. L., & Wright, A. G. C. (2019). The Interpersonal Situation: Integrating Personality Assessment, Case Formulation, and Intervention. In D. B. Samuel & D. R. Lynam (Eds.), *Using Basic Personality Research to Inform Personality Pathology* (pp. 94–121). Oxford University Press. https://doi.org/10.1093/med-psych/9780190227074.003.0005

Hopwood, C. J., Pincus, A. L., & Wright, A. G. C. (2021). Six assumptions of contemporary integrative interpersonal theory of personality and psychopathology. *Current Opinion in Psychology*, *41*, 65–70. https://doi.org/10.1016/j.copsyc.2021.03.007

Horne, R. M., Impett, E. A., & Johnson, M. D. (2020). Exclude me, enjoy us? Unmitigated communion and relationship satisfaction across 7 years. *Journal of Family Psychology*, *34*(6), 653–663. https://doi.org/10.1037/fam0000620

Horowitz L. M., Alden, L.E., Wiggins, J.S., & Pincus, A.L. (2000). *IIP-64/IIP-32 professional manual*. San Antonio, TX: Psychological Corporation.

Huber, J., Jennissen, S., Nikendei, C., Schauenburg, H., & Dinger, U. (2021). Agency and alliance as change factors in psychotherapy. *Journal of Consulting and Clinical Psychology*, *89*(3), 214–226. https://doi.org/10.1037/ccp0000628

Jasper, J. (2017). *Changing life stories: How treatment affects communion by people with a personality disorder*. MSc thesis. Department of Psychology, Health & Technology, University of Twente. Available from: http://essay.utwente.nl/73919/

Jennissen, S., Huber, J., Nikendei, C., Schauenburg, H., & Dinger, U. (2022). The interplay between agency and therapeutic bond in predicting symptom severity in long-term psychotherapy. *Journal of Counseling Psychology*, *69*(4), 506–517. https://doi.org/10.1037/cou0000602

Jensen, R. A. A., Thomsen, D. K., Lind, M., Ladegaard, N., & Bliksted, V. F. (2021). Storying the Past and the Future: Agency and Communion Themes Among Individuals With Schizophrenia and Depression. *Journal of Nervous & Mental Disease*, *209*(5), 343–352. https://doi.org/10.1097/NMD.0000000000001302

Koster, N., Lusin, I., van der Heijden, P. T., Laceulle, O. M., & van Aken, M. A. G. (2022). Understanding personality pathology in a clinical sample of youth: Study protocol for the longitudinal research project 'APOLO.' *BMJ Open*, *12*(6), e054485. https://doi.org/10.1136/bmjopen-2021-054485

Kuper, N., Modersitzki, N., Phan, L. V., & Rauthmann, J. F. (2021). The dynamics, processes, mechanisms, and functioning of personality: An overview of the field. *British Journal of Psychology*, *112*(1), 1–51. https://doi.org/10.1111/bjop.12486

Lind, M., Adler, J. M., & Clark, L. A. (2020). Narrative Identity and Personality Disorder: An Empirical and Conceptual Review. *Current Psychiatry Reports*, *22*(12), 67. https://doi.org/10.1007/s11920-020-01187-8

Lind, M., Jørgensen, C. R., Heinskou, T., Simonsen, S., Bøye, R., & Thomsen, D. K. (2019). Patients with borderline personality disorder show increased agency in life stories after 12 months of psychotherapy. *Psychotherapy*, *56*(2), 274–284. https://doi.org/10.1037/pst0000184

Locke, K. D. (2015). Agentic and Communal Social Motives: Agentic and Communal Social Motives. *Social and Personality Psychology Compass*, *9*(10), 525–538. https://doi.org/10.1111/spc3.12201

Luyten, P., & Fonagy, P. (2022). Integrating and differentiating personality and psychopathology: A psychodynamic perspective. *Journal of Personality*, *90*(1), 75–88. https://doi.org/10.1111/jopy.12656

Maree, J. G. (2021). The psychosocial development theory of Erik Erikson: Critical overview. *Early Child Development and Care*, *191*(7–8), 1107–1121. https://doi.org/10.1080/03004430.2020.1845163

McAdams, D. P., Bauer, J. J., Sakaeda, A. R., Anyidoho, N. A., Machado, M. A., Magrino-Failla, K., White, K. W., & Pals, J. L. (2006). Continuity and Change in the Life Story: A Longitudinal

Study of Autobiographical Memories in Emerging Adulthood. *Journal of Personality*, *74*(5), 1371–1400. https://doi.org/10.1111/j.1467-6494.2006.00412.x

McAdams, D. P., Hoffman, B. J., Day, R., & Mansfield, E. D. (1996). Themes of agency and communion in significant autobiographical scenes. *Journal of personality*, *64*(2), 339-377. https://doi.org/10.1111/j.1467-6494.1996.tb00514.x

McAdams, D. P., & McLean, K. C. (2013). Narrative Identity. *Current Directions in Psychological Science*, *22*(3), 233–238. https://doi.org/10.1177/0963721413475622

McAdams, D. P., & Pals, J. L. (2006). A new Big Five: Fundamental principles for an integrative science of personality. *American Psychologist*, *61*(3), 204–217. https://doi.org/10.1037/0003-066X.61.3.204

McCrae, R. R., & Costa, P. T. (2021). Understanding persons: From Stern's personalistics to Five-Factor Theory. *Personality and Individual Differences*, *169*, 109816. https://doi.org/10.1016/j.paid.2020.109816

McFarquhar, T., Luyten, P., & Fonagy, P. (2018). Changes in interpersonal problems in the psychotherapeutic treatment of depression as measured by the Inventory of Interpersonal Problems: A systematic review and meta-analysis. *Journal of Affective Disorders*, *226*, 108–123. https://doi.org/10.1016/j.jad.2017.09.036

McLean, K. C. (2005). Late Adolescent Identity Development: Narrative Meaning Making and Memory Telling. *Developmental Psychology*, *41*(4), 683–691. https://doi.org/10.1037/0012-1649.41.4.683

McLean, K. C., & Pratt, M. W. (2006). Life's little (and big) lessons: Identity statuses and meaning-making in the turning point narratives of emerging adults. *Developmental Psychology*, *42*(4), 714–722. https://doi.org/10.1037/0012-1649.42.4.714

Meisel, S. N., Paul, M. J., & Colder, C. R. (2021). Agency, communion, and pubertal status: Separating between- and within-person associations to examine social goals development. *Journal of Personality*, *89*(5), 1095–1107. https://doi.org/10.1111/jopy.12638

Muthén, L.K. and Muthén, B.O. (1998-2017). Mplus User's Guide. Eighth Edition. Los Angeles, CA: Muthén & Muthén.

Neel, R., Kenrick, D. T., White, A. E., & Neuberg, S. L. (2016). Individual differences in fundamental social motives. *Journal of Personality and Social Psychology*, *110*(6), 887–907. https://doi.org/10.1037/pspp0000068

Nelson, B., McGorry, P. D., Wichers, M., Wigman, J. T. W., & Hartmann, J. A. (2017). Moving From Static to Dynamic Models of the Onset of Mental Disorder: A Review. *JAMA Psychiatry*, *74*(5), 528. https://doi.org/10.1001/jamapsychiatry.2017.0001

Paulhus, D. L., & Trapnell, P. D. (2008). Self-Presentation of Personality. . . *Self*. Phillips, J. (2003). Psychopathology and the Narrative Self. *Philosophy, Psychiatry, & Psychology*, *10*(4), 313–328. https://doi.org/10.1353/ppp.2004.0022

Phillips, J. (2003). Psychopathology and the Narrative Self. *Philosophy, Psychiatry, & Psychology 10*(4), 313-328. doi:10.1353/ppp.2004.0022.

Pietraszkiewicz, A., Formanowicz, M., Gustafsson Sendén, M., Boyd, R. L., Sikström, S., & Sczesny, S. (2019). The big two dictionaries: Capturing agency and communion in natural language. *European Journal of Social Psychology*, *49*(5), 871–887. https://doi.org/10.1002/ejsp.2561

Pincus, A. L., & Hopwood, C. J. (2012). A Contemporary Interpersonal Model of Personality Pathology and Personality Disorder. In T. A. Widiger (Ed.), *The Oxford Handbook of Personality Disorders* (pp. 371–398). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199735013.013.0018

Pincus, A. L., Hopwood, C. J., & Wright, A. G. C. (2020). The interpersonal situation: An integrative framework for the study of personality, psychopathology, and psychotherapy. In J. F. Rauthmann,

R. A. Sherman, & D. C. Funder (Eds.), *The Oxford handbook of psychological situations.* (pp. 124–142). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780190263348.001.0001

Pincus, A. L., & Wright, A. G. C. (2012). Interpersonal Diagnosis of Psychopathology. In L. M. Horowitz & S. Strack (Eds.), *Handbook of Interpersonal Psychology* (pp. 359–381). John Wiley & Sons, Inc. https://doi.org/10.1002/9781118001868.ch22

Sajjadi, S. F., Gross, J., Sellbom, M., & Hayne, H. (2022). Narrative identity in borderline personality disorder. *Personality Disorders: Theory, Research, and Treatment*, *13*(1), 12–23. https://doi.org/10.1037/per0000476

Schreuder, M. J., Hartman, C. A., George, S. V., Menne-Lothmann, C., Decoster, J., van Winkel, R., Delespaul, P., De Hert, M., Derom, C., Thiery, E., Rutten, B. P. F., Jacobs, N., van Os, J., Wigman, J. T. W., & Wichers, M. (2020). Early warning signals in psychopathology: What do they tell? *BMC Medicine*, *18*(1), 269. https://doi.org/10.1186/s12916-020-01742-3

See, A. Y., Klimstra, T. A., Shiner, R. L., & Denissen, J. J. A. (2021). Linking narrative identity with schizotypal personality disorder features in adolescents. *Personality Disorders: Theory, Research, and Treatment*, *12*(2), 182–192. https://doi.org/10.1037/per0000414

Sharp, C., & Wall, K. (2018). Personality pathology grows up: Adolescence as a sensitive period. *Current Opinion in Psychology*, *21*, 111–116. https://doi.org/10.1016/j.copsyc.2017.11.010

Shiner, R. L., & Allen, T. A. (2013). Assessing personality disorders in adolescents: Seven guiding principles. *Clinical Psychology: Science and Practice*, *20*(4), 361–377. https://doi.org/10.1111/cpsp.12047

Shiner, R. L., Klimstra, T. A., Denissen, J. J., & See, A. Y. (2021). The development of narrative identity and the emergence of personality disorders in adolescence. *Current Opinion in Psychology*, *37*, 49–53. https://doi.org/10.1016/j.copsyc.2020.07.024

Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Salazar de Pablo, G., Il Shin, J., Kirkbride, J. B., Jones, P., Kim, J. H., Kim, J. Y., Carvalho, A. F., Seeman, M. V., Correll, C. U., & Fusar-Poli, P. (2022). Age at onset of mental disorders worldwide: Large-scale meta-analysis of 192 epidemiological studies. *Molecular Psychiatry*, *27*(1), 281–295. https://doi.org/10.1038/s41380-021-01161-7

Stone, L. E., & Segal, D. L. (2022). Social impairment and personality disorder features among older adults: An application of the circumplex model. *Personality and Mental Health*, *16*(1), 19–29. https://doi.org/10.1002/pmh.1523

Tackett, J. L., Herzhoff, K., Reardon, K. W., Smack, A. J., & Kushner, S. C. (2013). The relevance of informant discrepancies for the assessment of adolescent personality pathology. *Clinical Psychology: Science and Practice*, *20*(4), 378–392. https://doi.org/10.1111/cpsp.12048

Van den Akker, A. L., Briley, D. A., Grotzinger, A. D., Tackett, J. L., Tucker-Drob, E. M., & Harden, K. P. (2021). Adolescent Big Five personality and pubertal development: Pubertal hormone concentrations and self-reported pubertal status. *Developmental Psychology*, *57*(1), 60–72. https://doi.org/10.1037/dev0001135

Vanheule, S., Desmet, M., & Rosseel, Y. (2006). The factorial structure of the Dutch translation of the Inventory of Interpersonal Problems: A test of the long and short versions. *Psychological Assessment*, *18*(1), 112–117. https://doi.org/10.1037/1040-3590.18.1.112

Voelkle, M. C., Oud, J. H. L., Davidov, E., & Schmidt, P. (2012). An SEM approach to continuous time modeling of panel data: Relating authoritarianism and anomia. *Psychological Methods*, *17*(2), 176–192. https://doi.org/10.1037/a0027543

Widiger, T. A., Bach, B., Chmielewski, M., Clark, L. A., DeYoung, C., Hopwood, C. J., Kotov, R., Krueger, R. F., Miller, J. D., Morey, L. C., Mullins-Sweatt, S. N., Patrick, C. J., Pincus, A. L., Samuel, D. B., Sellbom, M., South, S. C., Tackett, J. L., Watson, D., Waugh, M. H., … Thomas,

K. M. (2019). Criterion A of the AMPD in HiTOP. *Journal of Personality Assessment*, *101*(4), 345–355. https://doi.org/10.1080/00223891.2018.1465431

Wilson, S., Stroud, C. B., & Durbin, C. E. (2017). Interpersonal dysfunction in personality disorders: A meta-analytic review. *Psychological Bulletin*, *143*(7), 677–734. https://doi.org/10.1037/bul0000101

Wright, A. G. C., Ringwald, W. R., Hopwood, C. J., & Pincus, A. L. (2022). *It's Time to Replace the Personality Disorders with the Interpersonal Disorders* [Preprint]. PsyArXiv. https://doi.org/10.31234/osf.io/7syvf

SUPPLEMENTARY MATERIAL

Agency codes:
0 = Protagonist is completely or somewhat powerless, at mercy of circumstances, with all/primary control of the plot at the hands of external powers. Or narrative is not written in first person (rare).

1 = When narrative displays both agentic and non-agentic elements. There needs to be an indication (e.g., by use of present tense) that both agentic and non-agentic elements are still present.

2 = Protagonist is agentic and minimally at the mercy of circumstances, with the majority of the control of the plot in the hands of the protagonist. Protagonists are somewhat/completely able to affect their own lives, initiate changes on their own, and achieve some degree of control over the course of their experiences whether this can be labeled as adaptive or maladaptive; may or may not include description of some struggle to achieve agentic status. In case of a struggle, it needs to be clear that the non-agentic elements are no longer present (e.g., by use of past tense).

9 = Recorded where there is no code-able language pertaining to the theme of agency (quite rare)

Communion codes:
0 = Protagonist is completely or mostly disconnected, isolated, or rejected and "strong" disconnection language is predominant, though some connection language may be present. Protagonist expresses no desire to be connected to others or wish for connection is absent.

1= Protagonist wants to be mostly/highly connected to others and (strong) wishes about connection are predominant. However, protagonist experiences complete or mostly disconnection, isolation, or rejection. And/Or negative/ambivalent connection language is used.

2 = When narrative displays both communal and non-communal elements (50/50). There is explicit evidence for some connection to others.

3 = Protagonist is mostly/highly connected to others and rich connection language is predominant, although some disconnection language may be present. And/Or positive connection language is used.

9 = Recorded where there is no code-able language pertaining to the theme of communion.

Publication:

Koster, N. Berghuis, H. Van Aken, M.A.G., Laceulle, O.M., & Van der Heijden, P.T. (2023). Integrating Shared and Unique approaches in Personality Assessment: A Case Formulation of Emma. *Journal of Psychiatry Research: Case Reports, 2(1),* 100126. https://doi.org/10.1016/j.psycr.2023.100126

Contribution:

NK and PH conceptualized the study. NK was responsible for data-collection and data-analysis. NK wrote the first draft of the manuscript. All authors provided feedback on the manuscript.

Chapter 9

Integrating shared and unique approaches **in the psychological assessment of a unique person:** A case formulation of Emma

ABSTRACT

Even though the shift to a dimensional perspective on personality and psychopathology is increasingly substantiated by scientific evidence, clinicians may still struggle to apply this transition in clinical practice on an individual level. The question may not be if, but how we adopt this 'new' perspective. In this paper we guide clinicians along McAdam's three-layered theoretical model of personality as a suitable approach for making this transition in clinical assessment. McAdam's model provides a dimensional and developmental framework that integrates nomothetic and idiographic approaches by assessing dispositional traits, characteristic adaptations, and the narrative identity. As such, it may structure the process of assessment, case formulation, and treatment planning. The developmental perspective makes it useful to gain a nuanced understanding of the personality of individuals of all ages, and may be particularly suitable for youth. In addition, with identity formation as a key developmental milestone, the inclusion of narrative identity is informative for this phase. The use of this framework is illustrated with a case formulation of Emma, an 18 year old women who is referred to specialized mental health care in the Netherlands. We draft a theoretically driven case-formulation and treatment plan. The picture of Emma, that is obtained by mapping her development along dispositional traits, characteristic adaptations, and narrative identity, facilitates communication and treatment planning. As such, the case of Emma presents an example of clinical assessment that integrates unique individual and more standardized information to personality, and simultaneously illustrates how clinicians may apply a dimensional, developmental theoretical framework of personality and psychopathology in clinical practice.

Hippocrates wrote "It is more important to know what sort of person has a disease than to know what sort of disease a person has". How does one come to know a person and understand its 'diseases'? This may be one of the core questions in mental health care. Two approaches to this question have been described, which could be termed the 'art and science' of clinical assessment (Garb, 2005; McAdams, 2015). As McAdams (2015, p. 2) frames it "If every life is a unique work of art, then science enters the picture when we begin to sense regularities amid all the diversity". The 'art' refers to an idiographic approach, in which the focus is on the unique development of an individual. The 'science' refers to a nomothetic and standardized approach, in which the focus is often on common principles that influence human behavior and comparing individual scores with mean levels of interpersonal differences. Thus, information that is shared by groups of individuals is considered (Beltz et al., 2016). Rather than one being superior over the other, these two approaches are considered complementary, both providing valuable information about a person and his or her strengths and vulnerabilities (Porcerelli et al., 2011; Salvatore & Valsiner, 2010; Westen & Weinberger, 2004). In clinical assessment these two approaches meet; that is a personal (idiographic) understanding of (the development of) the individual is necessary to facilitate communication between a patient, their network and professionals which may increase understanding and motivation for treatment (Kuyken et al., 2009). This can however only be obtained if the person is also considered in the general context of shared human development, preferably using standardized methods. As such it has been stated that "the study of a person begins as a science, but ends as an art"(Millon & Millon, 2004, p. 120). In this paper we suggest that the model of personality development, described by Dan McAdams (2015), presents a helpful framework to integrate information concerning commonalities obtained from standardized methods, as often used in nomothetic studies, with idiographic information in clinical assessment, especially for youth. Within this framework one can combine the idiosyncrasies of the unique person within a general theoretical framework for the development of personality (and psychopathology). We will demonstrate that a multi-method, multi-informant and multi-conceptual clinical assessment and case formulation is designated to translate this theoretical model into helpful clinical guidelines. Further, we will elaborate on the possibilities and challenges associated with this perspective. We will illustrate this integration of (shared, group level) nomothetic and (unique, individual) idiosyncratic information in the case formulation of Emma, an 18-year-old woman who was referred to specialized mental health care.

McAdams's framework of personality development as a guideline for clinical assessment

McAdams's model of personality development is a comprehensive theoretical framework that integrates the idiosyncrasies of the individual with the commonalities in

groups of people (McAdams & Pals, 2006). In this model, personality is conceptualized as a three-layered construct. It considers the person from three standpoints, the actor, the agent and the author, developing within a social and societal context. In the first layer (the person as actor) dispositional traits, refer to broad general dimensions of individual differences, accounting for inter-individual consistency and continuity in behavior, thought and feeling across situations over time; one's overall style. Dispositional traits resemble personality traits (like those described in the Five Factor Model) and their maladaptive equivalents (Widiger et al., 2012; Widiger & Crego, 2019). The second layer (the person as agent) referred to as characteristic adaptations, represents aspects of human individuality, that concern motivational, social-cognitive and developmental adaptations, contextualized in time, place and/or social role. These adaptations go beyond the stylistic performative present of the person as an actor, to the projected future of the person as an agent with a unique motivational agenda. As such, characteristic adaptations refer a broad range of constructs such as attitudes, values, mental representations of others, interpersonal behavior, social roles, goals and developmental tasks (McAdams & Pals, 2006). To illustrate, an example of a dispositional trait is being typically agreeable and helpful, the value and motivation to help individuals with mental health problems and have becoming a psychotherapist as a personal goal might be considered a characteristic adaptation (DeYoung, 2015). The third layer (the person as author), the narrative identity, represents a personal internalized story about the self and one's life that contributes to unity, meaning and purpose. Through autobiographical reasoning a person answers the questions 'who am I?', 'how did I become this person?' and 'where am I going?' by reconstructing his or her personality development from the present point of view (Habermas & Kober, 2015). As such, narrative identity serves to reconstruct one's past, connect it to one's experienced present, and extends this into one's imagined future (Adler, 2012). One's personal life story may be examined by considering three aspects: motivational and affective themes, autobiographical reasoning and structural characteristics (McLean et al., 2020). It is notable that this personal story, or subjective meaning making, has recently been suggested as particularly important for valid clinical assessment, early-detection of personality- and psychopathology and treatment planning (Lind, 2021).

This three-layered concept of the person as actor, agent and author conforms to a developmental framework (see Figure 1). As an individual matures from infant to adult, the three layers emerge consecutively, following cognitive- emotional- and social developmental changes (McAdams & Pals, 2006). First, in infancy and early childhood, broad temperamental dimensions manifest that are conceptualized as dispositional personality traits later in life. Second, as individuals in middle childhood become increasingly aware of personal agency, this prompts the articulation of motivations and wishes that evolve into life-goals and values in adulthood. Third, when changes

in cognitive capacities and social contexts facilitate autobiographical reasoning in adolescence, individuals start the construction of an explicit personal narrative that keeps evolving throughout life. As such, this layered framework may provide a nuanced understanding of the unique development of a person. Since personality and psychopathology are intrinsically intertwined, this person-centered approach to clinical assessment may also be helpful to understand manifestation of psychopathology (Haslam et al., 2020; Luyten & Fonagy, 2022; McCrae & Costa, 2021).

McAdams's developmental perspective in the clinical assessment of youth

Most mental disorders manifest for the first time during youth (adolescence and emerging adulthood) (Solmi et al., 2022). The unique vulnerabilities and potentialities in this developmental phase create opportunities for early-detection and -intervention to improve prognosis. However, personality remains infrequently or incompletely assessed and intervened on in youth (O'Dwyer et al., 2020; Shields et al., 2021). Clinicians mention to be hesitant with diagnosing personality pathology in this phase, for instance due to the stigma that is associated with it (Sharp & De Clercq, 2020). For this reason, improvement of accurate and nuanced clinical assessment is particularly important for this group, it may signify the start of treatment and can be seen as an essential part thereof (Finn, 2007; Sharp, 2020). McAdam's model may be suitable for this goal, because of the developmental core and dimensional nature of the model. It appropriately describes the developmental dynamics in this phase by separating stable traits from current functioning in different social contexts. In addition, with narrative identity as integral part of personality development it dedicates attention to identity formation as one of this phase's key developmental tasks (Arnett, 2015). This facilitates early-detection and -intervention because identity disturbance and difficulties in transferring into and functioning in this new adult role can be seen as key characteristics of personality pathology (Sharp & De Clercq, 2020). Further, this multi-layered model facilitates a multi-conceptual approach, which is particularly suggested for personality assessment in youth (Reardon et al., 2018; Shiner & Allen, 2013).

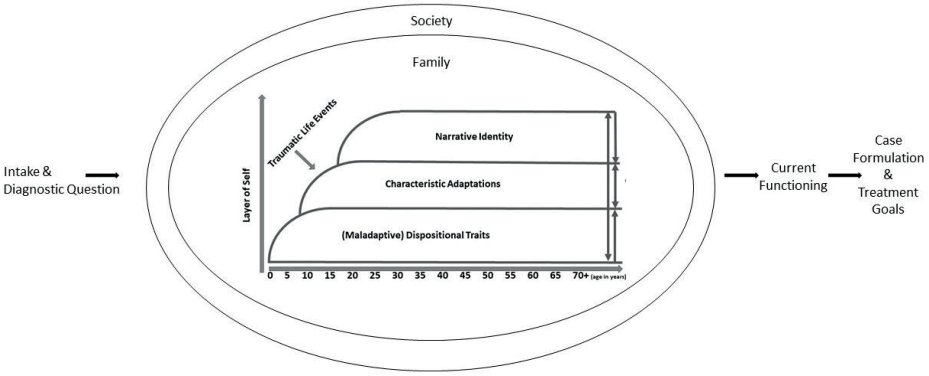
A dimensional and developmental perspective in clinical practice

Dimensional models of personality and psychopathology might be difficult to implement in clinical practice for a number of reasons. First, a categorical approach offers cognitive benefits by providing provisional, pragmatic and transparent guidelines for professional communication (Zimmerman, 2021). Most clinicians indicate that they would like an alternative to the categorical model but prefer a mixed approach, partly because dimensional data do not easily translate into straightforward treatment plans (Ahn et al., 2009; Bernstein et al., 2007). Second, clinical usefulness – in a narrow

sense – is determined by ease of use, communication and treatment planning. Clinical usefulness in a broader sense relates to diagnostic validity, including coverage and consistency with etiology and prognosis (Verheul, 2005). When it comes to a dimensional perspective on personality and psychopathology, reliability and structural validity of dimensional models in a broad sense has been convincingly established (Krueger & Eaton, 2010), but there is doubt whether – if ever – the transfer to this approach will be made if clinical usefulness in a narrow sense is not demonstrated and improved (Bornstein & Natoli, 2019; Haeffel et al., 2022; Zimmerman, 2021). Third, despite some studies that have suggested helpful guidelines, there is a paucity in literature on how to apply dimensional models of personality and psychopathology in clinical practice (Hopwood, 2018; Ruggero et al., 2019; Widiger & Mullins-Sweatt, 2010). There seems a need for practical, step by step, guidelines. The structural use of case formulations may be one of those guidelines that provides a roadmap to integrate the substantive amount of information following clinical assessment. Case formulations typically present integrated information about an individual based on a thorough understanding of underlying mechanisms of psychopathology and can be helpful to both patients and therapists for education, motivation, and treatment planning (Hagmayer et al., 2021; Macneil et al., 2012). However, practical guidelines based on a valid theoretical framework to aid in the selection of information for a case formulation are often lacking. They are frequently purely idiosyncratic and formulations about the same patient may vary between clinicians (Flinn et al., 2015). Educating clinicians in how to systematically construct case formulations seems to help to improve the quality of these formulations (Kuyken et al., 2005).

Considering these obstacles we conclude that applying McAdams multi-layered model may be a helpful step forward in making dimensional and developmental models clinically useful, especially for youth. In supplementary material A we suggest guidelines for applying this model in clinical assessment. We will illustrate how we have used this framework to get to know and understand Emma, a young woman referred to specialized mental health care. We will further illustrate how we have integrated information following clinical assessment and constructed a case formulation that aided in treatment planning. Emma (name is a pseudonym) provided verbal and written consent for using her information in this manuscript, and cooperated by providing feedback on the text.

Figure 1. *Adapted version of the integrative model of personality development (McAdams, 2013) as a framework for clinical practice to structure clinical assessment*



THE CASE OF EMMA

Case introduction

Emma is an 18 year old young adult, self-identified woman who is referred by her general practitioner to specialized mental health care for diagnostic assessment and treatment planning. The referrer's question was whether her difficulties could be classified as either a Borderline Personality Disorder (BPD) or an Autistic Spectrum Disorder (ASD). Emma was searching for help in gaining insight in herself and why she kept getting disappointed and frustrated in social situations, such as family and intimate relationships, and in her study. For instance, she described how she missed and longed for connectedness with and attention from her parents whom, from her perspective, predominantly gave attention to her younger brothers. In addition, she told emotionally about the on-and-off relationship with her boyfriend, whom she often supported emotionally and practically, without receiving the emotional support she needed from him in return. These interpersonal problems were Emma's main concern, that in her experience triggered and increased symptoms of depression, anxiousness, attention deficits and feelings of demoralization. Emma longed for treatment to help her navigate these symptoms and difficulties.

Instruments

Emma as actor. Emma's role as actor was examined by considering her dispositional trait scores on the PID-5-100 (Personality Inventory for DSM-5) (Koster et al., 2020; Maples et al., 2015). The PID-5 is a self-report questionnaire with five maladaptive personality trait domains and 25 trait facets. Considering these maladaptive variants of the Big Five personality traits matches this setting of specialized mental health care, in which most variance on the personality trait dimensions will be captured

by examining more extreme levels trait scores. Emma's mother indicated Emma's dispositional scores on the PID-5-IBF (Informant Brief Form; Rossi et al., 2011), a 25 item other-report questionnaire with five maladaptive dispositional trait domains.

Emma as agent. Emma's role as agent with personal motives and goals was considered by examining her characteristic adaptations in the interpersonal domain. Included were the following self-report questionnaires: RQ (Relationship Questionnaire) (Bartholomew & Horowitz, 1991), IIP-32 (Inventory of Interpersonal Problems; Horowitz et al., 2000), the NRI-BSV (Network of Relationships Inventory-Behavioral Systems Version) (Furman & Buhrmester, 2009) and developmental milestones measured by the DML (Developmental Milestones List; see description) (Koster et al., 2022) supplemented by information from a clinical interview.

Emma as author. Emma's role as author with a personal narrative was examined by asking her to elaborate on a turning point in her life. The 'turning point' was chosen as a brief assessment of narrative identity at an important moment of transition. This turning point interview is widely used in empirical studies as a brief but informative alternative to the elaborate full life story interview entailing multiple life chapters (McAdams, 2015; McLean & Pratt, 2006). We further considered her personal narrative by administering the Thematic Apperception Test (TAT; Murray, 1951) which was scored with the SCORS-G method (Stein & Slavin-Mulford, 2017) and by taking into account her overall style of self-disclosure.

Emma's symptom distress. Emma's main symptoms were examined by considering her scores on the nine subscales of the Symptom Questionnaire (SQ-48) (Carlier et al., 2012). The general severity of Emma's symptoms was assessed by considering her scores on the Satisfaction with Life Scale (SWLS) (Pavot & Diener, 2008) and the Level of Personality Functioning Scale (LoPFS-BF) (Weekers et al., 2019).

Process

Following Emma's intake with a resident in psychology and a psychiatrist (MD), who identified her curiosity and motivation for self-exploration, she was indicated for clinical assessment. This assessment was conducted by two trainee clinical psychologists (PsyD), supervised by a senior clinical psychologist (PsyD) and was commenced as a collaborative process (Finn, 2007). It was decided to have Emma's clarifying questions as the primary focus, instead of the referent's question for classification of a categorical DSM-5 diagnosis. A personal assessment question was formulated: 'Who am I, how did I become who I am and how can I take into account my strengths and difficulties in daily life?' Emma understood how the answer could aid in determining the right focus for her treatment. Subsequently, self- and parent-report information about Emma

was systematically collected. Following a multi-method, -informant and -concept approach, the instruments included clinical interviews with Emma and her parents, self- and other-report questionnaires, and projective material. For several measures (the PID-5-100, the IIP-32, the LoPFS-BF and the SQ-48) standardized norm scores were available which made it possible to consider Emma's scores in a nomothetic (*shared)* context. With the other instruments *unique* personal information concerning Emma was obtained. We collaborated with Emma to gain an understanding of her as an actor, agent and author: the development of and her current dispositional personality traits, characteristic adaptations and subjective experience of the past, present and future integrated in a personal narrative. We collaborated with Emma's parents to gain understanding of their perspective on Emma, as well as their parenting style and experiences. One individual-, one parent- and one family-session were dedicated clinical interviews discussing Emma's developmental and family context, her personal narrative as well as the contextual narrative. Moreover, one session was dedicated to the administration of several instruments selected along McAdams model. This collaboration with Emma and her parents facilitated self-exploration and was not separate from, but an essential part of her treatment. Thereafter, this information was integrated in a case formulation and discussed to help Emma come to an understanding of her development as a person, her struggles and strengths, as well as treatment goals that fitted her personal goals toward mental health.

RESULTS

A developmental and contextual perspective

Emma is born as the eldest daughter in a native Dutch, intact family with two younger brothers. She lives at home and, at the moment of diagnostic assessment, has a boyfriend on-and-off. Her mother works full-time and her father works part-time, following a burn-out a few years ago. One of Emma's brothers is diagnosed with autism spectrum disorder (ASD) and due to his functioning difficulties he received a lot of attention. In the direct or extended family no one else is diagnosed with a developmental disorder such as ASD or Attention Deficit Hyperactivity Disorder (ADHD), but multiple family members (father, mother, cousins) recognize some symptoms of these disorders themselves, including Emma. Based on her developmental history Emma did not meet the criteria of any developmental disorder as listed in DSM-5 (ASD, ADHD; APA, 2013). Her parents further describe Emma's character from a young age as 'someone who sets high standards both for herself and others, who is interested, attention seeking and full of initiatives'. They report to have somewhat different parenting styles, mother more flexible and father relatively more strict. However, they often seem to fall short of Emma's parenting-standards, in

her eyes they could both be more consistent and considerate. Emma reports to have experienced trauma, namely long-term implicit and explicit bullying at primary and high school and emotional abuse. Her parents were aware of the bullying and report to have tried to support her, but they were not able to stop it. Before referral to this mental health care center Emma had just finished high school and was tested with above average cognitive capacities. On the one hand she performed well in school and is described as ambitious and social, on the other hand she had problems with staying focused on school work and fitting in with peers.

Emma as actor: Dispositional traits

Emma's scores on maladaptive personality traits were, in comparison to a non-clinical norm-group, high (> +2 SD) on the trait domains Negative Affectivity and Antagonism and above average (> +1 SD) on the trait domains Disinhibition and Psychoticism. She endorsed particularly high scores on the trait facets Anxiousness, Attention Seeking, Distractibility and Eccentricity. Characteristic of her profile were the overall high scores on most trait domains and facets, pointing to both the stability and severity of Emma's difficulties in a broad range of situations. The low score on the trait facet submissiveness was notable. Mother's report of Emma's maladaptive trait domains was in line with Emma's self-report, with the characteristic high levels of Negative Affectivity and Antagonism. This profile of high emotionality, impulsivity and friction was congruent with the anamnestic information in the clinical interviews: from a young age Emma could be characterized as a strong-willed and sensitive girl with intense emotions who was heavily bullied by peers and not always prone to cooperate. Arguments, disagreements, broken trust and friendships are mentioned as important themes along with strong feelings of disappointment, sadness about not fitting in and anger about not being understood.

Emma as agent: Characteristic adaptations

Whilst Emma's mother self-identified most with a secure attachment style, Emma self-identified with an anxious attachment style: '*I would like to have intimate relationships with others, but I feel as if others don't want to be close to me. I am unhappy if I don't have close relationships, but sometimes it seems that I care more about other people than they care about me'.* The relationship between Emma and her parents could be characterized by anxiousness and avoidance: Emma longs for and values a close bond with her parents, however her history of disappointment in this relationship leads her often to respond dismissively and avoidant to possibilities for or attempts at connection. The relationship with her boyfriend is, similarly to how it is with her parents and has been in friendships, characterized by ups and downs: closeness alternating with conflicts often caused by disappointment resulting from unmet expectations. Emma scored above average (> 1SD) on almost all problematic interpersonal behaviors, her

profile being characterized by the two highest scores on the needy and controlling subscales. It is notable that despite her social difficulties, she also indicated support in close attachment relations. This points to her social qualities and the centrality of her motive to connect with others. Emma values social relations and strives to repeatedly invest in them even though they cause stress and conflict. Reflecting on these outcomes, she acknowledged this motivation to invest in friendships and a romantic relationship. Particularly, she wants to make new friends at her study in a foreign town next year, however she feels anxious and concerned thinking about this. She often feels 'different and alone', because it seems that others do not have the same norms, values and interests as her. She reports to *'work hard to become a better version of herself every day',* to be '*willing to go the extra mile for others*' and to '*always deliver on her promises*', but others rarely seem to acknowledge Emma's efforts or show the same dedication to relationships and self-development in her experience. She is often disappointed in her standards of being devoted to progress, the other, honesty, punctuality and living up to promises. In that case '*she would rather be alone than with an idiot*', she stated resolutely, than at least she knows what she can expect. Emma talked about two important life-goals: first, to have close bonds with others who appreciate her and that are 'on the same level', meaning that they are also willing to work on themselves and are honest in and devoted towards the relationship. Second, to find a study that interests her. At the moment of assessment she is exploring options for further study and leans towards a bachelor study in pedagogics or psychology. Her dream is to both start a family with a supportive husband and have a successful and well-paid career, so that she can provide a stable life to her family in a nice neighborhood.

Emma as author: Narrative identity

Emma described two turning points: 1) the moment she became vegan and felt confident in this choice, even though she was the only one in her family and 2) the moment her relationship ended: '*When Michael and I broke up, I immediately had the feeling of peace that I longed for. I felt stronger than in the whole period leading up to this break-up, that I wanted to put myself first. I am the main character in my life and I lost sight of that. That was because of me, I just lost peace'.* These turning points seem characteristic for the overall tone of Emma's personal narrative. She narrates about many disappointments in the past, among which the traumatic experiences of being bullied and emotionally abused, that have taught her to rely on herself and not on others. It is a highly agentic narrative. She is responsible for crafting the life she wants is what she tells herself. This seems to cause a conflict with her values and goals, since she longs for close and mutually supportive relationships both in the present and in her imagined future. Her story is consequently filled with contradicting themes of wanting to be understood and loved versus loneliness, being successful versus failing, wanting to achieve versus not caring and hope versus depression. These contradictions seem dif-

ficult to integrate into a coherent and meaningful story that contributes to purpose for the life she desires. Further, in the projective material, Emma tended to describe people's personalities and internal states in minimally elaborated ways and narrated often about personal needs or relationship struggles. Narratives showed references to being somewhat invested in moral values and signs of passive-aggressiveness. To gain a complete and nuanced understanding of Emma's personal story, information was structured along the three general characteristics of narrative accounts (McLean et al., 2020).

Motivational and affective themes. Emma's narratives are characterized by both a drive to get ahead (agency) and get along (communion), however these seemed to be contradictions: The agentic choice to become a vegan set her apart from her family and the description of her relationship reflects the struggle with feeling communion while staying agentic. The turning point narratives had a neutral or slightly positive and decisive emotional tone. However, the affective quality of representations in the TAT was negative, as were her overall narrative themes and self-representations.

Autobiographical reasoning. At intake Emma asked '*Do I need a diagnosis to understand myself or get the right treatment?*' This reflective attitude is one that characterized Emma throughout the process next to the continuous description of situations in which she feels pulled between two opposite contradictions. Emma is somewhat reflective in these narratives, but has the tendency to contrast the two seemingly difficult to integrate opposites (for instance feeling understood and accepted vs. feeling misunderstood and ignored), which usually have only one way out: 'doing it alone'. Thus, the narratives show signs of personal and temporal continuity, but emphasize her anxious attachment style.

Structural aspects. Emma's narratives are relatively coherent and elaborate. They provide a reasonable amount of detail, cause-and-effect language and interpretive aspects, in which the story is related to some aspect of the self. An example of this is the story Emma tells with TAT picture 3BM, in which there is no sign of fusion with the image, but she states that she recognizes herself in the picture: '*This is a girl who sits on the floor there are scissors next to her… I think she is very depressed. She wants to hurt herself. The depression makes her feel nothing and everything at the same time… I think she won't do it… Yes I think something will cross her path that will be a small light at the end of the tunnel'.*

Symptom distress

Emma's psychopathological symptom score profile, characterized by above average to high scores on all symptoms and a low score on vitality, may be termed 'severe'.

She scored above average on agora- and social phobia and depression (> 1 SD) and high (> 2 SD) on somatic and cognitive complaints, aggression, anxiety and study/work-related problems. However, her general satisfaction with life and functioning problems were rated as average, indicating that she felt positive about some areas of her life. The scores on reaching developmental milestones confirmed this image, Emma indicated that she was not doing well on social developmental tasks (such as having satisfactory friendships and being able to trust friends), but felt relative ease and confidence in individual developmental tasks (such as taking care of personal belonging and learning in school).

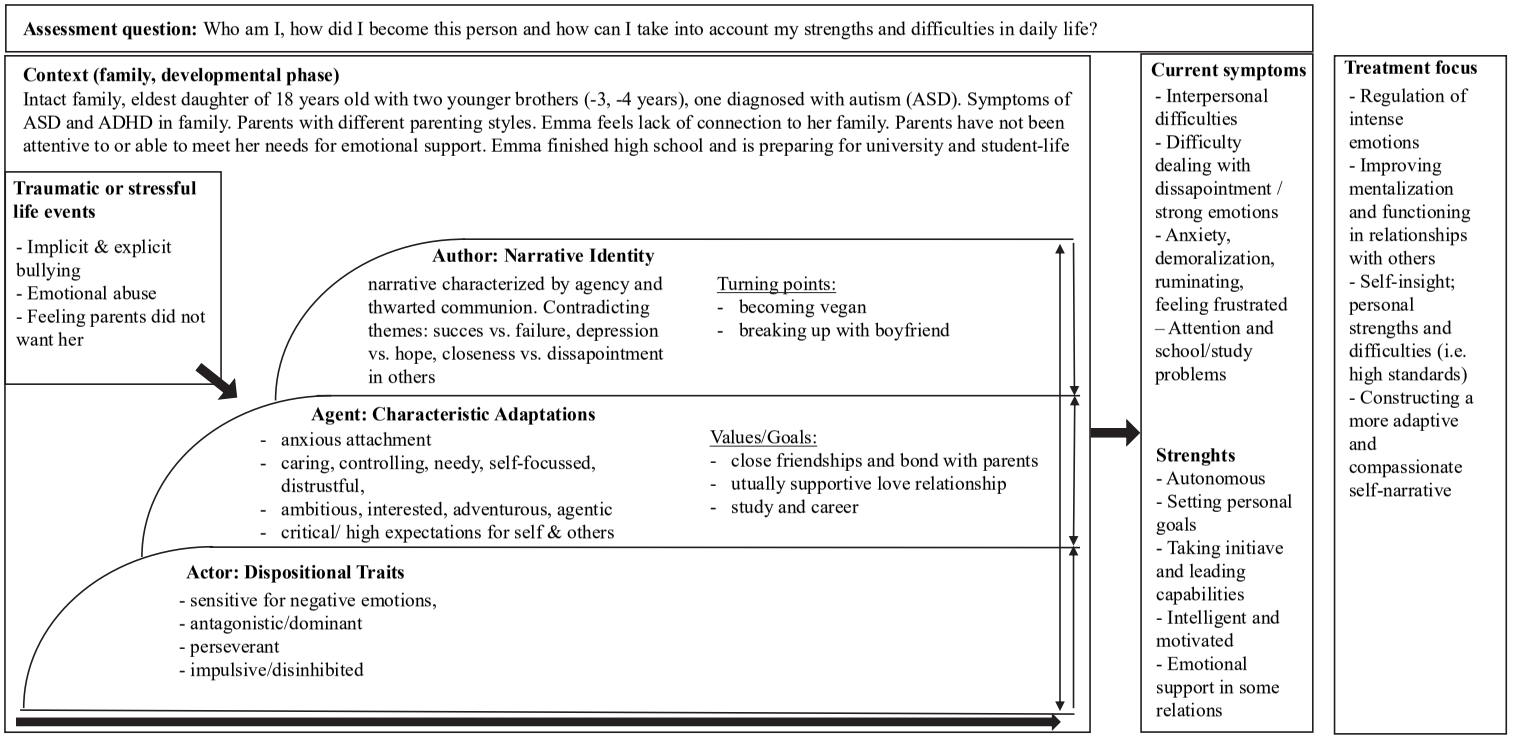
A case formulation of Emma

A psychiatric case formulation may typically follow the order of clinical manifestation, pathological processes and etiology (Chisolm & Lyketsos, 2012). However, in this case formulation we choose a different structure, namely to answer Emma's personal assessment question along the lines of McAdams's model. As such, we now describe etiology (developmental context and dispositional traits, including genetic vulnerability and traumatic experiences), pathological processes (characteristic adaptations and narrative identity), clinical manifestation and treatment goals. Figure 2 depicts a visual presentation of this formulation.

Emma's *personal assessment question* was "Who am I, how did I become this person and how can I take into account my strengths and difficulties in daily life?'. Emma, her parents and the clinician collaborated to gain an understanding of Emma's personality development to answer this question, using various assessment methods. Emma's *developmental context*, is formed by growing up as the eldest daughter in an intact family with two younger brothers, one of which claimed a lot of parental attention. Her family bonds contain(ed) support and warmth at times, however conflict, unmet emotional needs, not feeling safe and being disappointed seem to have been present continuously. Emma's profile of *dispositional traits*, compared to the profiles of other adolescents, can be characterized by high levels of maladaptive traits overall. Considering her most elevated scores, these seem to predominantly reflect a general tendency to be emotionally unstable. She furthermore tends to be more combative or argumentative than her peers and may generally be described as strongly 'engaged' rather than 'detached or estranged'. This profile of elevated trait scores, which has more often been indicated as a vulnerability trait profile associated with severe psychopathology, implies that strong emotions seem to have a large influence on Emma and also affect her behavior and interactions with others. On the one hand, strong positive emotions of curiosity and joy may urge her to act impulsively, on the other hand strong negative emotions of worry or anxiety may easily distract her and make her crave support, attention or control. This partly reflects her *genetic vulnerability* for a

difficult temperament and psychopathology, in interaction with *traumatic experiences* of years of being severely bullied and lack of support when needed. This context has shaped Emma. Her need for close connection, attention and control was frustrated regularly, given her strong emotions, she often felt deeply misunderstood and different. It seems that as a result, she *characteristically adapted* to becoming hesitant in allowing people to come close or accepting help, despite a strong longing for closeness and attention. Emma's standards are high, which helps her to be ambitious and reach personal goals. However, compared to her peers, Emma can also be dismissive and dismayed more than average when these standards are not met, complicating both the relation with herself and with others. These processes of interaction have shaped her *narrative identity*. Her story has strong references to needing to be autonomous and longing for connection, two seemingly contradictory goals that lead to ambivalent feelings. Statements like 'I do not fit in' and 'I am better of alone' characterize her narrative, that speaks of disappointments in herself and others. Such incompatible contradictions are themes in Emma's personal story, and seem to be at the core of *Emma's symptoms*. Emma is not optimistic about or wholly satisfied with her life, despite some life-areas in which she is functioning well and has similar scores as her peers. However, compared to her peers, she experiences severe cognitive, emotional, somatic and behavioral symptoms, particularly anxiety, attention problems, ruminating and feeling frustrated and troubled. This limits her in her goals and dreams, as a young lady in emerging adulthood, to take steps towards taking on a responsible adult role in which she maintains a satisfactory love relation and friendships and successfully finishes a study and starts a career. Based on this understanding of Emma, emotion regulation, functioning in relationships with others as well as gaining insight in personal strengths and difficulties can be marked as important *treatment goals* that are likely to contribute to reaching these personal goals. It will be a challenge for Emma to build trust in the relationship with the therapist as well as tolerate disappointments or slow change. However, Emma's motivation, perseverance, intelligence, tendency to be engaged and eagerness to learn about herself will further support her in reaching these goals.

Figure 2. *Information of Emma's clinical assessment structured in an adapted version of McAdams's (2013) framework of personality development*



The above answer to the initial assessment question was discussed with Emma. In addition it was presented to her in a letter, in order to facilitate clear and personal communication and the opportunity for self-reflection (Finn, 2007). She was moved by this concise summary of her development and could see how seemingly separate experiences and situations emphasized the same feeling and cognition again and again. She agreed that this description reflected her core problems and should be used to base a further treatment plan on, in which specific interpersonal and cognitive problems could be incorporated. We furthermore discussed her major treatment goals, along the important themes and identified problems that stood out in the case formulation (Ingram, 2012). These were first, the ability to regulate her strong emotions. Second, the wish to be connected to others in a meaningful way and reflect on (and break with) recurrent characteristic patterns in social relationships. Third, the feeling of disappointment in both herself and social relations both now and in the past and the goal to divert this personal story from the dominant black-and-white perspective by exploring nuances and practicing mentalization. These goals were then prioritized along sub- and process goals and provided direction for appropriate focus and methods for treatment. Given the evidence for the benefits of multiple forms of individual or group psychotherapy with these type of treatment goals (Lambert & Ogles, 2004), a shared decision (Zisman-Ilani et al., 2021), taking into account Emma's personal preferences, was made to start individual psychotherapy. Her characteristic interpersonal profile of being relatively dominant and distrustful were relevant to monitor and address in the therapeutic relationship. From the outcomes of the assessment it may be expected that, with her dispositional profile, Emma will keep experiencing some emotional instability throughout her life. However, insight in her personality profile, her way to adapt to challenges in life and her manner of meaning making are important for identity formation. It may help her to gain realistic expectations from herself and others. Emma's personal story may be broadened and strengthened by reflecting in each session on her strengths both currently, as she practices with new behavior and cognitions, and in situations in the past that may be an exception to her seeming 'rule' that she is better of alone. This recognition and integration of self-information in the personal narrative was noted an explicit treatment goal and matched her personal motivation for treatment. It would furthermore be used to inform and involve her social network.

DISCUSSION

Emma's process illustrates how information collected through collaborative assessment along the dimensions of McAdams' theoretical model, could aid in getting to know and understand a person in a nuanced and developmentally appropriate

way (McAdams & Pals, 2006). Therewith, this model may provide a bridge between theory and clinical practice in moving the transition to a dimensional perspective on personality and pathology in clinical practice forward. The theoretical model and practical case formulation guideline helped to structure the process of clinical assessment. It facilitated communication with Emma, in terms of self-understanding, with Emma's social network, in terms of involvement and psycho-education, and amongst clinicians in terms of case formulation and treatment planning. In addition, it facilitated understanding of Emma's strengths and difficulties, her personal treatment goals and motivation for treatment. As such, this clinical assessment did not only provide insight and directions for treatment, but in fact was an essential *part of* treatment (Finn, 2007).

McAdams's model in clinical assessment with youth

We want to highlight three aspects of clinical assessment along the lines of McAdams's model that relate to its clinical usefulness in assessments with youth: First, with identity formation being a key developmental task for youth, this model facilitates its central role by collection of standardized and unique information on narrative identity as a separate dimension of personality. In the case of Emma, this focus on her personal narrative has been informative. It appeared that her meaning making problems, in which disappointment and contradictions autonomy and connectedness often played a role, in interplay with her dispositions of being highly emotional and disagreeable, constituted the core of her difficulties. Indeed, it has been found that elements of the narrative identity as well as personality traits are strongly related to psychopathology and well-being and therewith are complementary in gaining a nuanced understanding of one's characteristic adaptations (Sue et al., 2016; Waszczuk et al., 2021). Narrative identity accounts are also informative for early-intervention as they may indicate entries for change by revealing which narrative characteristics contribute to the maintenance of a dominant maladaptive personal story (Adler & Clark, 2019; McAdams & Janis, 2004).

Second, this framework is in line with the shift in our current scientific understanding of psychopathology and its etiology as a dimensional and developmental phenomenon strongly intertwined with personality. Adolescents whom are admitted to specialized mental health care often deal with complex and diffuse mental problems, on top of the dynamic developmental phase they are in. This was notable in Emma, who finds herself on the verge of taking on adult roles and setting goals that extend far into the future. In clinical practice, severe psychopathology in this phase is often indicated as 'other-specified' or 'unspecified' or by several comorbid clinical diagnoses. For instance, in the Netherlands 21% or 71% (depending on whether co-occurrence with formal personality disorder diagnoses is allowed) of individuals in specialized

mental health care were diagnosed with a 'personality disorder not otherwise specified' (Verheul et al., 2007). This 'unspecified' diagnosis would have also been conceivable for Emma. However, such classifications are non-informative both for patients and clinicians and require elaboration on strengths, vulnerabilities and the extent to which these may be relatively stable or changeable with treatment. McAdam's model goes beyond categorical classifications, and is conceptually related to the Alternative Model of Personality Disorders (AMPD) (American Psychiatric Association (APA), 2013; Mulay et al., 2018). However, it emphatically extends and integrates it to fit a dimensional and developmental perspective (McCrae & Costa, 2021). In this assessment we discussed symptoms of the categorical diagnoses of ASD, ADHD and BPD as of secondary importance, but integrated Emma's intra- and interpersonal, cognitive and emotion regulation difficulties into the understanding of her as a whole person. It has been found that dispositional traits and such dimensional descriptions may be superior to categorical diagnosis for early-intervention in guiding treatment planning, prognostic hypotheses and insight in therapeutic needs (Bagby et al., 2016; Waszczuk et al., 2021).

Third, collaborative assessment as a method for early-detection and -intervention matches the developmental phase youth are in, which is characterized by (self-)exploration. It provides a context in which youth walk the line between self-verification and disintegration, as they together with an assessor investigate and reflect on their current self and development (Finn & Martin, 2013). In the case of Emma this match between her need for self-exploration and the process of collaborative assessment was notable. This phase, in which there are leaps in cognitive, emotional and social development, may be viewed as a 'window of opportunity' for learning and development, in which the brain is flexible, exploratory and open to social-affective influences facilitating identity formation (Costa et al., 2019; Crone & Dahl, 2012). As such, clinical assessment may be a *risk* or a *reason,* in this developmental phase: A *risk* because, when assessment and discussion thereof is disorder-centered and developmentally insensitive, its outcome may contribute to stigma, pathological self-concept and behavior to manage a stigmatized identity, particularly (Elkington et al., 2012). A *reason* because a case formulation that meaningfully integrates standardized and unique information may contribute to self-understanding. To reach this goal, reflective feedback should match youths zone of proximal development (Tharinger et al., 2013).

Limitations of this model and method

There are several general limitations of this model and method that must be discussed and overcome in order to obtain the described benefits. First, clinicians must gain a solid understanding of McAdams three-layered model of personality development. This requires theoretical knowledge combined with conceptual and integrative think-

ing and may therefore not be easy to adopt for everyone. Adding to the complexity of this model and the necessity of conceptual integration is the fact that the three layers are not as neatly separated from each other as they may seem. The distinction between dispositions and adaptations may be difficult to make, they are most likely overlapping (Henry & Mõttus, 2020). For example, there is discussion whether attachment style may be seen as disposition or adaptation (McAdams & Pals, 2006). Therefore some instruments may fit into multiple layers. In addition, self-report instruments always have overlap with the narrative identity layer, as they touch upon one's self-concept and subjective meaning making. In this assessment for instance, the TAT was used, for which the results may fit both 'within' the layer of characteristic adaptations and the layer of narrative identity. There are many methods to assess one's narrative identity particularly. The most elaborative and rigorous method may be the full life story interview (McAdams, 2015, 2018). This interview contains many chapters that may also be used as prompts separately, such as high, low or turning points (McLean et al., 2020; McLean & Pratt, 2006). These brief prompts may be informative, but do not contain as much information as the full life story interview. Moreover, it must be taken into account that, examining narrative identity is inseparable from examining a patients verbal abilities. In addition, a general limitation of describing individuals' personality profiles 'in a vacuum' may have the risk of static rather than process based description. While McAdams model allows for the description of developmental processes over time, it does not prompt the description of (day-to-day) interactional processes between individuals and their social environment. There is a push in the field in which the importance of dynamic processes for understanding psychopathology is increasingly emphasized (Hofman & Hayes, 2019; Rau, Zimmermann & Back, 2023). Future studies may suggest how these processes may be incorporated in case formulations along this model.

To tackle some of these difficulties we suggest some steps for information selection and a straightforward case formulation guideline (see Supplementary material A). It must be noted that the scientific accuracy and clinical usefulness of this elaborate process of clinical assessment that was executed for Emma justifies that it may be time consuming, as is the fact that it provides the start of treatment. Limitations of this particular clinical assessment with Emma were the lack of assessment of 'adaptive' dispositional traits, such as the Big Five, only maladaptive dispositional trait scores (PID-5) were available. These may have an overlap with symptoms and may provide a towards pathology biased indication of dispositional traits. Furthermore, cognitive functions were not tested (no neuropsychological assessment was conducted), which could have provided additional important information concerning the study-problems. However, Emma did exhibit relatively high mentalizing capacities, which made this assessment possible. Conducting such an assessment with clients who have limited cognitive abil-

ity or deficient mentalizing capacities may require different methods. Also, the family session was conducted solely with Emma and her parents, not with her two brothers. This could have provided additional information concerning the family dynamics.

In conclusion, to come to '*know what sort of person has a disease*' we discussed the value of the three-layered theoretical framework of McAdams. This framework seems clinically useful in a broad and narrow sense by providing diagnostic validity, including coverage and consistency with etiology and prognosis, by structuring choice of instruments and case formulations and by facilitating communication about the process of clinical assessment, treatment goals and planning. This framework, that is integrative of both dimensional and developmental perspectives, seems especially suited for youth. Given the empirical evidence for personality and psychopathology as intertwined dimensional concepts, the onset of most mental disorders in adolescence and the benefits of early-detection and -intervention, this developmental phase is particularly designated for accurate clinical assessment. Case formulations could subsequently provide a roadmap for meaningful integration of shared (i.e., the commonalities of groups of people) and unique (i.e., the idiosyncrasies of the individual) aspects of personality following collaborative clinical assessment. We have demonstrated the clinical usefulness and the particular value of this framework for youth with the assessment process of Emma and provide step-by-step guidelines in supplementary material A and B.

REFERENCES

Adler, J. M. (2012). Living into the story: Agency and coherence in a longitudinal study of narrative identity development and mental health over the course of psychotherapy. *Journal of Personality and Social Psychology*, *102*(2), 367–389. https://doi.org/10.1037/a0025289

Adler, J. M., & Clark, L. A. (2019). Incorporating narrative identity into structural approaches to personality and psychopathology. *Journal of Research in Personality*, *82*, 103857. https://doi.org/10.1016/j.jrp.2019.103857

Ahn, W. K., Kim, N., Rottman, B., & Sanislow, C. (2009). The Cognitive Consequences of Using Categorical versus Dimensional Classification Systems: The Case of Personality Disorder Experts. In Proceedings of the Annual Meeting of the Cognitive Science Society. https://escholarship.org/uc/item/6kq0x58q American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). ttps://doi.org/10.1176/appi.books.9780890425596

Arnett, J.J. (2015). Identity development from adolescence to emerging adulthood: What we know and (especially) don't know. In K. L. McLean, M. U. Syed (Eds.),*The Oxford handbook of identity development*. Oxford University Press: New York, p. 53-64.

Bagby, R. M., Gralnick, T. M., Al-Dajani, N., & Uliaszek, A. A. (2016). The Role of the Five-Factor Model in Personality Assessment and Treatment Planning. *Clinical Psychology: Science and Practice*, *23*(4), 365–381. https://doi.org/10.1111/cpsp.12175

Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, *61*(2), 226–244. https://doi.org/10.1037/0022-3514.61.2.226

Beltz, A. M., Wright, A. G. C., Sprague, B. N., & Molenaar, P. C. M. (2016). Bridging the Nomothetic and Idiographic Approaches to the Analysis of Clinical Data. *Assessment*, *23*(4), 447–458. https://doi.org/10.1177/1073191116648209

Bernstein, D. P., Iscan, C., & Maser, J. (2007). Opinions of Personality Disorder Experts Regarding The *DSM-IV* Personality Disorders Classification System. *Journal of Personality Disorders*, *21*(5), 536–551. https://doi.org/10.1521/pedi.2007.21.5.536

Bornstein, R. F., & Natoli, A. P. (2019). Clinical utility of categorical and dimensional perspectives on personality pathology: A meta-analytic review. *Personality Disorders: Theory, Research, and Treatment*, *10*(6), 479–490. https://doi.org/10.1037/per0000365

Carlier, I., Schulte-Van Maaren, Y., Wardenaar, K., Giltay, E., Van Noorden, M., Vergeer, P., & Zitman, F. (2012). Development and validation of the 48-item Symptom Questionnaire (SQ-48) in patients with depressive, anxiety and somatoform disorders. *Psychiatry Research*, *200*(2–3), 904–910. https://doi.org/10.1016/j.psychres.2012.07.035

Chisolm, M. S., & Lyketsos, C. G. (2012). *Systematic psychiatric evaluation: A step-by-step guide to applying The perspectives of psychiatry*. Johns Hopkins University Press.

Costa, P. T., McCrae, R. R., & Löckenhoff, C. E. (2019). Personality Across the Life Span. *Annual Review of Psychology*, *70*(1), 423–448. https://doi.org/10.1146/annurev-psych-010418-103244

Crone, E. A., & Dahl, R. E. (2012). Understanding adolescence as a period of social–affective engagement and goal flexibility. *Nature Reviews Neuroscience*, *13*(9), Article 9. https://doi.org/10.1038/nrn3313

DeYoung, C. G. (2015). Cybernetic Big Five Theory. *Journal of Research in Personality*, *56*, 33–58. https://doi.org/10.1016/j.jrp.2014.07.004

Elkington, K. S., Hackler, D., McKinnon, K., Borges, C., Wright, E. R., & Wainberg, M. L. (2012). Perceived Mental Illness Stigma Among Youth in Psychiatric Outpatient Treatment. *Journal of Adolescent Research*, *27*(2), 290–317. https://doi.org/10.1177/0743558411409931

Finn, S. E. (2007). *In our clients' shoes: Theory and techniques of therapeutic assessment*. L. Erblaum.

Finn, S. E., & Martin, H. (2013). Therapeutic assessment: Using psychological testing as brief therapy. In K. F. Geisinger, B. A. Bracken, J. F. Carlson, J.-I. C. Hansen, N. R. Kuncel, S. P. Reise, & M. C. Rodriguez (Eds.), *APA handbook of testing and assessment in psychology, Vol. 2: Testing and assessment in clinical and counseling psychology.* (pp. 453–465). American Psychological Association. https://doi.org/10.1037/14048-026

Flinn, L., Braham, L., & das Nair, R. (2015). How reliable are case formulations? A systematic literature review. *British Journal of Clinical Psychology*, *54*(3), 266–290. https://doi.org/10.1111/bjc.12073

Furman, W., & Buhrmester, D. (2009). Methods and Measures: The Network of Relationships Inventory: Behavioral Systems Version. *International Journal of Behavioral Development*, *33*(5), 470–478. https://doi.org/10.1177/0165025409342634

Garb, H. N. (2005). Clinical Judgment and Decision Making. *Annual Review of Clinical Psychology*, *1*(1), 67–89. https://doi.org/10.1146/annurev.clinpsy.1.102803.143810

Habermas, T., & Kober, C. (2015). Autobiographical reasoning is constitutive for narrative identity: The role of the life story for personal continuity, in: K.C. McLean, M.U. Syed (Eds.), T*he Oxford handbook of identity development*. Oxford University Press: New York, 149-165

Haeffel, G. J., Jeronimus, B. F., Fisher, A. J., Kaiser, B. N., Weaver, L. J., Vargas, I., Goodson, J. T., Soyster, P. D., & Lu, W. (2022). The Hierarchical Taxonomy of Psychopathology (HiTOP) Is Not an Improvement Over the *DSM*. *Clinical Psychological Science*, *10*(2), 285–290. https://doi.org/10.1177/21677026211068873

Hagmayer, Y., Witteman, C., & Claes, L. (2021). PACT: A protocol for assessment, mechanism-based case formulation and treatment planning. *Journal of Evaluation in Clinical Practice*, *27*(3), 648–656. https://doi.org/10.1111/jep.13540

Haslam, N., McGrath, M. J., Viechtbauer, W., & Kuppens, P. (2020). Dimensions over categories: A meta-analysis of taxometric research. *Psychological Medicine*, *50*(9), 1418–1432. https://doi.org/10.1017/S003329172000183X

Henry, S., & Mõttus, R. (2020). Traits and Adaptations: A Theoretical Examination and New Empirical Evidence. *European Journal of Personality*, *34*(3), 265–284. https://doi.org/10.1002/per.2248

Hippocrates, 460-370 BC

Hofmann, S. G., & Hayes, S. C. (2019). The future of intervention science: Process-based therapy. *Clinical Psychological Science*, *7*(1), 37-50. https://doi.org/10.1177/2167702618772296

Hopwood, C. J. (2018). A framework for treating DSM-5 alternative model for personality disorder features: A framework for treating DSM-5 alternative model for personality disorder features. *Personality and Mental Health*, *12*(2), 107–125. https://doi.org/10.1002/pmh.1414

Horowitz LM, Alden LE, Wiggins JS, Pincus AL. IIP-64/IIP-32 professional manual. San Antonio, TX: Psychological Corporation. 2000.

Ingram, B. L. (2012). *Clinical case formulations: Matching the integrative treatment plan to the client* (2nd ed). John Wiley & Sons.

Koster, N., Laceulle, O. M., Van der Heijden, P. T., Klimstra, T., De Clercq, B., Verbeke, L., De Caluwé, E. A. L., & Van Aken, M. A. G. (2020). A Psychometric Evaluation of a Reduced Version of the PID-5 in Clinical and Non-Clinical Adolescents. *European Journal of Psychological Assessment*, *36*(5), 758–766. https://doi.org/10.1027/1015-5759/a000552

Koster, N., Lusin, I., van der Heijden, P. T., Laceulle, O. M., & van Aken, M. A. G. (2022). Understanding personality pathology in a clinical sample of youth: Study protocol for the longitudinal research project 'APOLO.' *BMJ Open*, *12*(6), e054485. https://doi.org/10.1136/bmjopen-2021-054485

Krueger, R. F., & Eaton, N. R. (2010). Personality traits and the classification of mental disorders: Toward a more complete integration in DSM–5 and an empirical model of psychopathology.

Personality Disorders: Theory, Research, and Treatment, *1*(2), 97–118. https://doi.org/10.1037/a0018990

Kuyken, W., Fothergill, C. D., Musa, M., & Chadwick, P. (2005). The reliability and quality of cognitive case formulation. *Behaviour Research and Therapy*, *43*(9), 1187–1201. https://doi.org/10.1016/j.brat.2004.08.007

Kuyken, W., Padesky, C. A., & Dudley, R. (2009). *Collaborative case conceptualization: Working effectively with clients in cognitive-behavioral therapy*. Guilford Press.

Lambert, M. J., & Ogles, B. M. (2004). The efficacy and effectiveness of psychotherapy. In M. J. Lambert (Ed.), Bergin and Garfield's handbook of psychotherapy and behavior change. New York: John Wiley & Sons, p. 139-193.

Lind, M. (2021). ICD-11 Personality Disorder: The Indispensable Turn to Narrative Identity. *Frontiers in Psychiatry*, *12*, 642696. https://doi.org/10.3389/fpsyt.2021.642696

Luyten, P., & Fonagy, P. (2022). Integrating and differentiating personality and psychopathology: A psychodynamic perspective. *Journal of Personality*, *90*(1), 75–88. https://doi.org/10.1111/jopy.12656

Macneil, C. A., Hasty, M. K., Conus, P., & Berk, M. (2012). Is diagnosis enough to guide interventions in mental health? Using case formulation in clinical practice. *BMC Medicine*, *10*(1), 111. https://doi.org/10.1186/1741-7015-10-111

Maples, J. L., Carter, N. T., Crego, C., Gore, W. L., Williamson, R. L., Widiger, T. A., & Krueger, R. F. (2015). *Testing Whether the DSM-5 Personality Disorder Trait Model Can Be Measured With a Reduced Set of Items: An Item Response Theory Investigation of the Personality Inventory for DSM-5*.

McAdams, D. P. (2015). *The art and science of personality development*. The Guilford Press.

McAdams, D. P. (2018). *The life story interview*. The Foley center for the study of lives, Evanston IL: Northwestern University. Retrieved from: https://www.sesp.northwestern.edu/foley/instruments/interview/

McAdams, D. P., & Janis, L. (2004). Narrative identity and narrative therapy. In In L.E. Angus, J. McLeod (Eds.). *The handbook of narrative and psychotherapy: Practice, theory, and research*, Sage: California, p. 159-173

McAdams, D. P., & Pals, J. L. (2006). A new Big Five: Fundamental principles for an integrative science of personality. *American Psychologist*, *61*(3), 204–217. https://doi.org/10.1037/0003-066X.61.3.204

McCrae, R. R., & Costa, P. T. (2021). Understanding persons: From Stern's personalistics to Five-Factor Theory. *Personality and Individual Differences*, *169*, 109816. https://doi.org/10.1016/j.paid.2020.109816

McLean, K. C., & Pratt, M. W. (2006). Life's little (and big) lessons: Identity statuses and meaning-making in the turning point narratives of emerging adults. *Developmental Psychology*, *42*(4), 714–722. https://doi.org/10.1037/0012-1649.42.4.714

McLean, K. C., Syed, M., Pasupathi, M., Adler, J. M., Dunlop, W. L., Drustrup, D., Fivush, R., Graci, M. E., Lilgendahl, J. P., Lodi-Smith, J., McAdams, D. P., & McCoy, T. P. (2020). The empirical structure of narrative identity: The initial Big Three. *Journal of Personality and Social Psychology*, *119*(4), 920–944. https://doi.org/10.1037/pspp0000247

Millon, T., & Millon, T. (Eds.). (2004). *Personality disorders in modern life* (2nd ed). Wiley.

Mulay, A. L., Cain, N. M., Waugh, M. H., Hopwood, C. J., Adler, J. M., Garcia, D. J., Kurtz, J. E., Lenger, K. A., & Skadberg, R. (2018). Personality Constructs and Paradigms in the Alternative *DSM-5* Model of Personality Disorder. *Journal of Personality Assessment*, *100*(6), 593–602. https://doi.org/10.1080/00223891.2018.1477787

Murray, H. A. (1951). Uses of the thematic apperception test. *American Journal of Psychiatry*, *107*(8), 577–581. https://doi.org/10.1176/ajp.107.8.577

O'Dwyer, N., Rickwood, D., Buckmaster, D., & Watsford, C. (2020). Therapeutic interventions in Australian primary care, youth mental health settings for young people with borderline personality disorder or borderline traits. *Borderline Personality Disorder and Emotion Dysregulation*, *7*(1), 23. https://doi.org/10.1186/s40479-020-00138-2

Pavot, W., & Diener, E. (2008). The Satisfaction With Life Scale and the emerging construct of life satisfaction. *The Journal of Positive Psychology*, *3*(2), 137–152. https://doi.org/10.1080/17439760701756946

Porcerelli, J. H., Cogan, R., & Bambery, M. (2011). The Mental Functioning Axis of the *Psychodynamic Diagnostic Manual*: An Adolescent Case Study. *Journal of Personality Assessment*, *93*(2), 177–184. https://doi.org/10.1080/00223891.2011.542724

Rau, R., Zimmermann, J., & Back, M. D. (2023). Applying multimodal social relations analyses in personality pathology research. *Personality Disorders: Theory, Research, and Treatment*, *14*(1), 73. https://doi.org/10.1037/per0000589

Reardon, K. W., Mercadante, E. J., & Tackett, J. L. (2018). The assessment of personality disorder: Methodological, developmental, and contextual considerations. *Current Opinion in Psychology*, *21*, 39–43. https://doi.org/10.1016/j.copsyc.2017.09.004

Rossi, G., Van Alphen, B., & De Weerdt, M. (2011). p / a Uitgeverij Boom, Amsterdam. Dutch translation of The Personality Inventory for DSM-5 ® — Informant Form (PID-5-IRF) — Adult, 2011 based on The Personality Inventory for DSM-5 ®— Brief Form (PID-5-BF) — Adult, 2011. https://www.dsm-5.nl/documenten/pid-5_kort_informantenversie.pdf

Ruggero, C. J., Kotov, R., Hopwood, C. J., First, M., Clark, L. A., Skodol, A. E., Mullins-Sweatt, S. N., Patrick, C. J., Bach, B., Cicero, D. C., Docherty, A., Simms, L. J., Bagby, R. M., Krueger, R. F., Callahan, J. L., Chmielewski, M., Conway, C. C., De Clercq, B., Dornbach-Bender, A., … Zimmermann, J. (2019). Integrating the Hierarchical Taxonomy of Psychopathology (HiTOP) into clinical practice. *Journal of Consulting and Clinical Psychology*, *87*(12), 1069–1084. https://doi.org/10.1037/ccp0000452

Salvatore, S., & Valsiner, J. (2010). Between the General and the Unique: Overcoming the Nomothetic versus Idiographic Opposition. *Theory & Psychology*, *20*(6), 817–833. https://doi.org/10.1177/0959354310381156

Sharp, C. (2020). Adolescent Personality Pathology and the Alternative Model for Personality Disorders: Self Development as Nexus. *Psychopathology*, *53*(3–4), 198–204. https://doi.org/10.1159/000507588

Sharp, C., & De Clercq, B. (2020). Personality Pathology in Youth. In C. W. Lejuez & K. L. Gratz (Eds.), *The Cambridge Handbook of Personality Disorders* (1st ed., pp. 74–90). Cambridge University Press. https://doi.org/10.1017/9781108333931.015

Shields, A. N., Giljen, M., España, R. A., & Tackett, J. L. (2021). The p factor and dimensional structural models of youth personality pathology and psychopathology. *Current Opinion in Psychology*, *37*, 21–25. https://doi.org/10.1016/j.copsyc.2020.06.005

Shiner, R. L., & Allen, T. A. (2013). Assessing personality disorders in adolescents: Seven guiding principles. *Clinical Psychology: Science and Practice*, *20*(4), 361–377. https://doi.org/10.1111/cpsp.12047

Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Salazar de Pablo, G., Il Shin, J., Kirkbride, J. B., Jones, P., Kim, J. H., Kim, J. Y., Carvalho, A. F., Seeman, M. V., Correll, C. U., & Fusar-Poli, P. (2022). Age at onset of mental disorders worldwide: Large-scale meta-analysis of 192

epidemiological studies. *Molecular Psychiatry*, *27*(1), 281–295. https://doi.org/10.1038/s41380-021-01161-7

Stein, M. B., & Slavin-Mulford, J. (2017). *The Social Cognition and Object Relations Scale-Global Rating Method (SCORS-G): A Comprehensive Guide for Clinicians and Researchers* (1st ed.). Routledge. https://doi.org/10.4324/9781315207629

Sue, D., Sue, D. W., Sue, D. M., & Sue, S. (2016). *Understanding abnormal behavior* (Eleventh edition). Cengage Learning.

Tharinger, D. J., Gentry, L. B., & Finn, S. E. (2013). Therapeutic Assessment with Adolescents and Their Parents: A Comprehensive Model, In: D. H. Saklofske, C. R. Reynolds & V. L. Schwean (Eds.). T*he Oxford handbook of child clinical assessment*. Oxford University Press: Oxford, p. 385-420

Verheul, R. (2005). Clinical Utility of Dimensional Models for Personality Pathology. *Journal of Personality Disorders*, *19*(3), 283–302. https://doi.org/10.1521/pedi.2005.19.3.283

Verheul, R., Bartak, A., & Widiger, T. (2007). Prevalence and Construct Validity of Personality Disorder not Otherwise Specified (PDNOS). *Journal of Personality Disorders*, *21*(4), 359–370. https://doi.org/10.1521/pedi.2007.21.4.359

Waszczuk, M., Hopwood, C., Luft, B., Morey, L., Perlman, G., Ruggero, C., Skodol, A., & Kotov, R. (2021). The Prognostic Utility of Personality Traits Versus Past Psychiatric Diagnoses: Predicting Future Mental Health and Functioning. *Clinical Psychological Science*, 216770262110565. https://doi.org/10.1177/21677026211056596

Weekers, L. C., Hutsebaut, J., & Kamphuis, J. H. (2019). The Level of Personality Functioning Scale-Brief Form 2.0: Update of a brief instrument for assessing level of personality functioning: The Level of Personality Functioning Scale - Brief Form 2.0. *Personality and Mental Health*, *13*(1), 3–14. https://doi.org/10.1002/pmh.1434

Westen, D., & Weinberger, J. (2004). When clinical description becomes statistical prediction. *American Psychologist*, *59*(7), 595–613. https://doi.org/10.1037/0003-066X.59.7.595

Widiger, T. A., & Crego, C. (2019). The Five Factor Model of personality structure: An update. *World Psychiatry*, *18*(3), 271–272. https://doi.org/10.1002/wps.20658

Widiger, T. A., Lynam, D. R., Miller, J. D., & Oltmanns, T. F. (2012). Measures to Assess Maladaptive Variants of the Five-Factor Model. *Journal of Personality Assessment*, *94*(5), 450–455. https://doi.org/10.1080/00223891.2012.677887

Widiger, T. A., & Mullins-Sweatt, S. N. (2010). Clinical utility of a dimensional model of personality disorder. *Professional Psychology: Research and Practice*, *41*(6), 488–494. https://doi.org/10.1037/a0021694

Zimmerman, M. (2021). Why hierarchical dimensional approaches to classification will fail to transform diagnosis in psychiatry. *World Psychiatry*, *20*(1), 70–71. https://doi.org/10.1002/wps.20815

Zisman-Ilani, Y., Roth, R. M., & Mistler, L. A. (2021). Time to Support Extensive Implementation of Shared Decision Making in Psychiatry. *JAMA Psychiatry*, *78*(11), 1183. https://doi.org/10.1001/jamapsychiatry.2021.2247

SUPPLEMENTARY MATERIAL

Appendix A: A step-by-step guideline for case formulation along McAdams' integrative model of personality development[3]

1. Getting acquainted: discussion of focus of clinical assessment and explanation of the collaborative assessment process: "*We will work together to find answers to our questions and we will be using different methods to do that such as….. Thereafter I will write a concise integration of the information and discuss that with you to formulate treatment goals"*

2. Formulation of the main questions

3. Create an assessment plan based on a multi-method, multi-concept (dispositions, adaptations, narrative identity, current functioning in various contexts), multi-informant approach [76].

4. Conduct the clinical assessment in multiple sessions. The main questions are reflected on in each session. Information about reasons for using methods or feedback about outcomes as intervention may be provided throughout these sessions.

5. Interpret and integrate the results of the different methods and sources by using the format in Appendix B.

6. Integrate all available information in a case formulation (identify both strengths and difficulties for every section).

o To answer **<Name>**'s question: **<Question>** information about multiple concepts, based on multiple methods and informants was collected collaboratively and integrated along a three-layered dimensional and developmental model.

o **<Name>**'s dispositional style is **<global dominant dispositional traits>.** He/She often feels/behaves/thinks **<nuances in trait facets>.**

o **<Name>**'s development can be characterized by **<genetic vulnerabilities/family history/family life/quality of relationships with primary caregivers/significant (traumatic) events>.**

o From a very young age the interaction of this dispositional style and developmental context has reinforced/attenuated **<characteristic adaptations: effect throughout development on self/parents/family dynamics/peers>.**

o Specifically, **<Name>**'s self-image/interpersonal style can be characterized by **<specific social-cognitive adaptations>.**

o **<Name>**'s personal story furthermore has (strong) references to **<key themes and characteristics of narrative identity>.**

3 Various formats have been proposed for setting up a collaborative clinical assessment (i.e., Finn, 2020) and drafting case formulations (i.e., Flinn et al., 2014; Ingram, 2012). This format builds on these proposals and focusses on setting up an assessment from which to draft a case formulation along McAdams's integrative model of personality development (McAdams & Pals, 2006).

o **<Identified key issues>** seem to be at the core of **<Name>**'s current problems, she/he experiences **<mental problems and symptoms>.**

o This hinders his/her dream/motivation/goal to **<personal motivations and/or life goals that are hindered (thus are reason for treatment)>.**

o These mark **<treatment goals based on person-centered clinical assessment>** as important treatment goals that contribute to reaching these personal goals/motivations/dreams.

o **<Name>**'s **<personal strengths/qualities>** will further support him/her in reaching these goals.

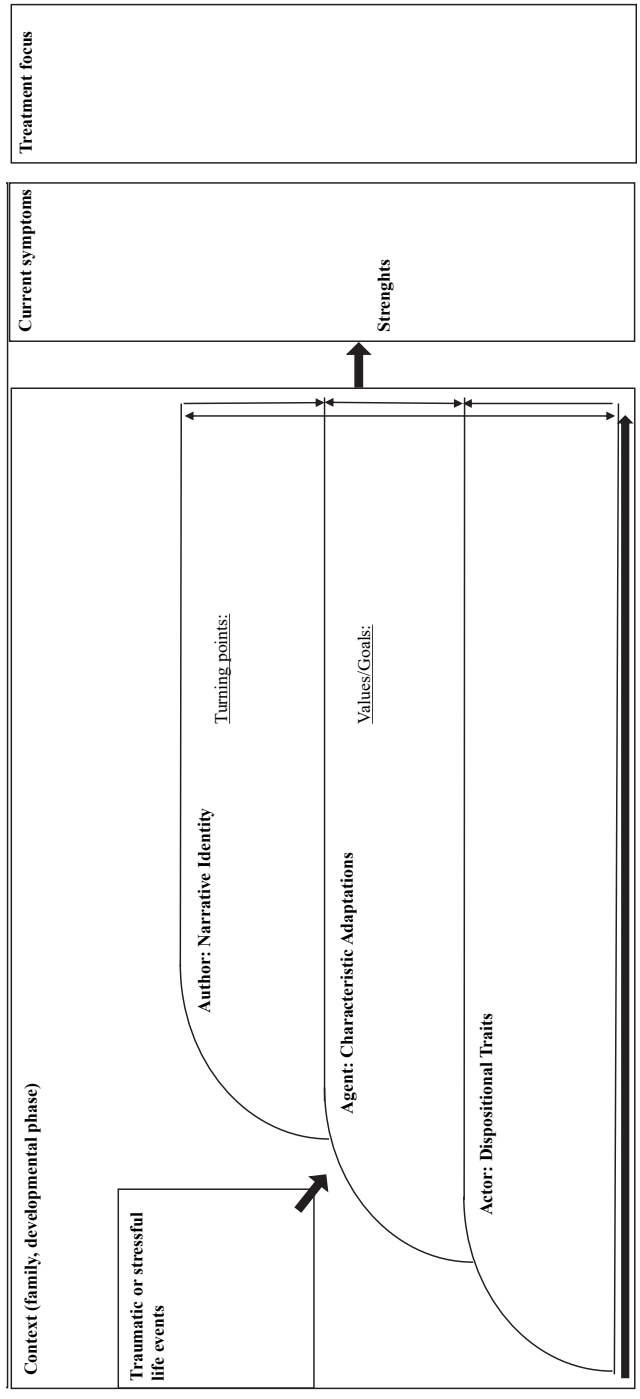
7. Discussion of case formulation with the patient (such that it contributes to identity formation) and his/her parents and its implications for treatment

a. Discussion of case formulation with colleagues and its implications for treatment planning and the therapeutic relationship

8. Shared decision making about treatment goals

9. Treatment Planning

Appendix BI: Clean format for integrating information for a case formulation



Chapter 10
General Discussion

"*Every person fashions a once-in-eternity, never-to-be-repeated life… Yet all lives resemble one another in at least a few ways*" – Dan McAdams (2015, p. 1).

With this dissertation I aimed to integrate shared and unique perspectives on personality and therewith contribute to unraveling ways in which the pathways of personality development of vulnerable youth resemble one another, and in which they are unique once-in-eternity, never-to-be-repeated endeavors. A reason for me to venture off on this journey were the stories of young and vulnerable individuals I came across in clinical practice. Individuals like the young couple in love, Brody and Georgia, and the hopeful child, Emma. I considered ways in which they are like all other (vulnerable) youth, and ways in which they are unique.

Emma was urgently referred to a specialized mental health institute and was scared to lose control and impulsively act on her suicidal thoughts. While she used to have such high hopes for the future, now everything seemed a blur to her. Not a day went by that she did not consider suicide. 'Everyone is better off without me!' she cried.

This story called for a nuanced perspective on Emma, her functioning and difficulties. A perspective to help her and others around her understand 'how she became who she is' by integrating knowledge about shared elements of personality development, while acknowledging her unique characteristics. This dissertation aimed to contribute to such integration by considering maladaptive pathways of personality development and personality pathology within the framework of the integrative model of personality development described by D. McAdams (2013).

In this general discussion, I summarize and reflect on the findings of the studies in this dissertation (see Table 1). I will do so along the layers of McAdams's model that emerge consecutively during development. First, by considering youth as social actors, then adding the standpoint of youth as motivated agents and lastly including youth as autobiographical authors. I will integrate these findings and discuss how they increase our understanding of maladaptive pathways of personality development. Further, I will discuss how they may help in early-detection of personality pathology, reflecting on both their theoretical relevance and clinical implications. Finally, I will formulate directions for future studies along key take-aways from these studies.

McAdams's model as a framework to study development of personality and -pathology

McAdams's (2013) three-layered integrative model of personality development is typically used to understand normative personality development. In this dissertation we suggested that this model is also a valuable framework for understanding maladaptive

developmental pathways and emergence of personality pathology, particularly for youth. In chapter 9, we described how we used this framework to structure clinical assessment for Emma and draft her case formulation and treatment plan. We concluded that it seems useful for clinical assessment in youth, by creating a nuanced perspective on this unique young woman layer by layer as an actor, agent and author, her (mal)-adaptive development and on current difficulties. It highlighted both strengths and vulnerabilities of her personally and of her developmental context that led to important (self)-insights. However, this dissertation attests not only to this models' clinical value. Using its components to understand the personality development of vulnerable youth generally and empirically, allowed me to integrate perspectives from personality, clinical and developmental psychology and particularly explore meaning making through narratives as an important integral aspect of personality and personality pathology.

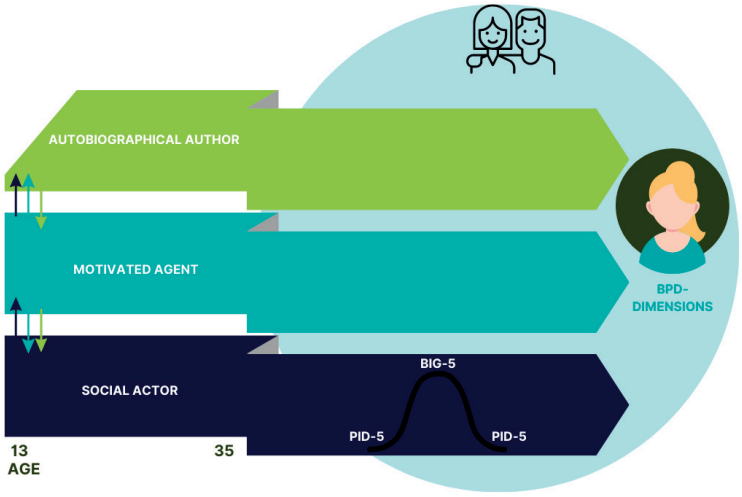
Table 1. *Summary of the main findings in this dissertation*

Section 1. Shared and unique dispositions, adaptations and environments	
Chapter 2	- Big Five personality traits and BPD dimensions are strongly associated - A FFM profile of high N, low A and low C could be identified - Notable is the strong association between Neuroticism and BPD symptoms - No evidence for specific correspondence between trait- or symptom-clusters
Chapter 3	- The 100-item and 220-item PID-5 have similar psychometric properties across four samples of (non-)clinical mid- and late-adolescents - A five factor structure fitted the data reasonably well. - Facet-exploration is suggested for nuanced assessment in clinical practice
Chapter 4	- Three latent trajectories of change in symptom distress were identified: One stable high, one strong decreasing and one moderate decreasing trajectory - Maladaptive personality traits negative affectivity and detachment predicted the stable high and strong decreasing trajectories - Support or conflict with parents did not predict these trajectories
Chapter 5	- The DAE model provides a general and flexible framework for empirical tests of specific hypotheses that are grounded in theory - Higher levels of disagreeableness and neuroticism predict a lower quality of the parent-child relationship - Higher quality of the parent-child relationship predicts lower levels of unconscientiousness and less social problems - More social problems predict higher quality of the parent-child relationship

Table 1. *Summary of the main findings in this dissertation continued*

Section 2. Shared and unique narrative identities	
Chapter 6	- This protocol describes the theoretical background, data-collection procedure, methods and main hypotheses of the APOLO research project.
Chapter 7	- Turning point narratives with a more negative valence and self-event connection valence and lower levels of agency and communion were associated to higher levels of personality dys-functioning, negative affectivity, detachment and psychoticism - These narrative characteristics were also associated with higher scores on the borderline, avoidant and obsessive compulsive trait facet profiles - No differences in the narratives of youth were found when considering personality pathology from a categorical perspective.
Chapter 8	- Agency and communion in narratives and self-reported interpersonal problems are associated concurrently and show continuity - Youth who narrated more agentic and communal stories reported generally less interpersonal problems and specifically less cold, social inhibited and overly accommodating attitudes. - Associations were most evident and strong between communion and general interpersonal problems, specifically cold attitudes.
Chapter 9	- The use of McAdams's model as a framework for clinical assessment with youth is substantiated and demonstrated with the case of Emma - A theoretically driven case-formulation and treatment plan were drafted - The case study illustrated the relevancy of McAdams's framework given 1) (narrative) identity development as a key task in youth, 2) the shift to a dimensional understanding of psychopathology and 3) the value of collaborative multi-conceptual, -method and -informant clinical assessment

Figure 1a. *The constructs that were examined for vulnerable youth as social actors*



Youth as social actors

The perspective on youth as social actors (Figure 1a) considers the relatively consistent ways throughout development in which one approaches the (social) world, in terms of emotion, thought and action (McAdams, 2013). In this dissertation we have considered the normative Big Five personality traits in chapter 2, chapter 3 and chapter 5, and their maladaptive extremes, in chapter 2, chapter 4 and chapter 7. First, we substantiated important findings for the assessment of maladaptive personality traits in vulnerable youth in chapter 2. In this study we found psychometric properties of a 100-item reduced version of the PID-5 in (vulnerable) youth to be comparable to the original 220-item version (De Clercq et al., 2014) and to the properties found in adults (Maples et al., 2015). This provided evidence that this reduced questionnaire could be used reliably for the assessment of maladaptive personality traits in (vulnerable) youth, drastically decreasing assessment time. Further, given the suggested dimensionality of normative and pathological traits (DeYoung et al., 2016; van Dijk et al., 2021; Widiger et al., 2012), we considered both in this chapter. The pattern of correlations supported dimensionality, with strong associations between maladaptive or pathological personality traits and their normative counterparts. Particularly concerning the questionable association between psychoticism and openness (Chmielewski et al., 2014; van Dijk et al., 2021), our results suggested that in vulnerable youth the trait psychoticism, next to openness, taps into the tendency to be disagreeable (Charlton, 2009; McCroskey et al., 2001). In chapter 3, we only focused on these normative traits and additionally found strong support for the connection between these traits and characteristics of the borderline personality disorder.

Personality pathology along trait dimensions

Together, the results of both chapter 2 and chapter 3, provide support for the generalizability of findings from adult to community adolescent samples concerning assessment of maladaptive personality traits. Furthermore, these results support the notion of dimensionality of normative and pathological (i.e. maladaptive) personality traits and of personality traits and personality disorder symptoms in youth in clinical settings (Maples et al., 2015; Samuel & Widiger, 2008; Saulsman & Page, 2004). This indicates that, at least from a dimensional perspective, clinicians should not hestitate to consider or detect personality pathology in youth any more than they do with adults (Bozzatello et al., 2019; Chanen et al., 2020; Sharp, 2020). It also suggests that, like in adults, personality pathology in youth may best be conceptualized along pathological variants of normative personality traits (Tackett et al., 2016). – as an alternative to the criticized categorical perspective –

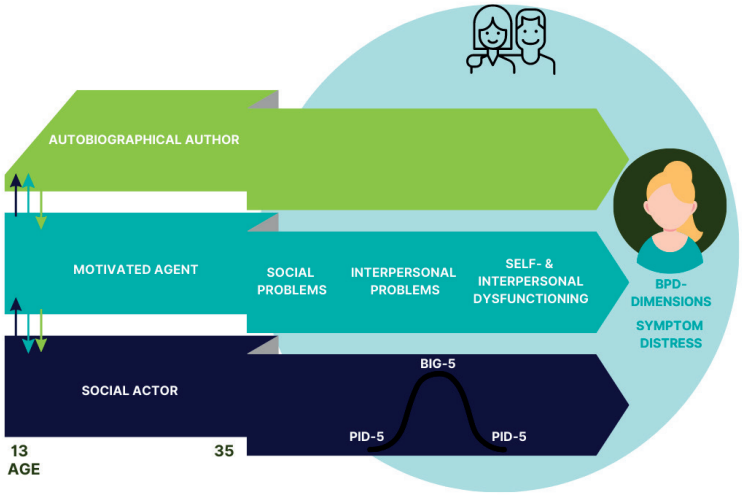
To take a more detailed perspective, our results shed light on which maladaptive traits seem particularly important for this alternative dimensional conceptualization of personality pathology in vulnerable youth. Across studies, whether considering normative or maladaptive personality traits, neuroticism or negative affectivity demonstrated strong associations with maladaptive personality development or -pathology: Relations between neuroticim and borderline symptoms appeared strong (chapter 2), negative affectivity predicted the strong decreasing and stable high trajectories of change in symptom distress over a period of one and a half years (chapter 4), neuroticism predicted lower perceived quality of the parent-child relationship (chapter 5) and negative affectivity was related to self- and interpersonal functioning problems (chapter 6). These findings confirm previous results that robustly link neuroticism to a broad range of mental disorders (Brandes et al., 2019; Griffith et al., 2010), and personality pathology in particular (Miller & Pilkonis, 2006; Mulder et al., 2011). High levels of neuroticism in youth may have severe individidual consequences, like psychological distress (e.g., Ploubidis & Frangou, 2011) and general consequences, like public health implications (Lahey, 2009; Ormel et al., 2013; Widiger & Oltmanns, 2017).

However, high levels of neuroticism as a general vulnerability to experience (personality) pathology and psychological distress (Sharp et al., 2015) only represent one trait of an individuals' typology. The results in chapter 2 suggest that vulnerable youth, particularly with borderline symptoms, seem characterized by high levels of neuroticism (N), low levels of agreeableness (A) and low levels of conscientiousness (C). This 'High N, Low A, Low C' trait-typology as a vulnerability-trait profile has been found to be underlying multiple types of personality pathology (Samuel & Widiger, 2008; Saulsman & Page, 2004). It has also been linked to a general factor of psychopathology or "p" factor that may represent a general vulnerability for maladaptive personality

and mental health problems (Caspi et al., 2014; Hopwood et al., 2010). Next to this vulnerability-trait profile and neuroticism or negative affectivity as a consistent important associated or predictive factor, we additionally found in chapter 2, extraversion, in chapter 4, detachment (low extraversion), in chapter 5, disagreeableness, and in chapter 7, detachment and psychoticism to be important.

As such, we conclude from a nomothetic perspective that vulnerable youth as social actors can be characterized by the personality trait dimension of neuroticism or negative affectivity. However, from an idiographic perspective, while levels of neuroticism may be most characteristic generally, levels of other maladaptive personality traits seem often present in vulnerable youth but vary considerably. These individual trait profiles make youth and their pathology uniquely different (Yin et al., 2021).

Figure 1b. *The constructs that were examined for vulnerable youth as social actors and motivated agents*



Youth as motivated agents and social actors

Vulnerable youth may approach their social world in relatively consistent ways as social actors, but they find themselves in vastly differing social contexts. A perspective on youth as motivated agents considers the characteristic and intentional ways in which they adapt to their ever-changing (social) world (McAdams, 2013). In this dissertation we considered such adaptations in the social domain. The reason for this was twofold; First, related to the developmental phase of youth, there is a heightened interpersonal sensitivity during this phase as individuals construct their identities and broaden their social network (Collins & Laursen, 2004). – in interaction with their environment – Second, related to the development and early-detection of personality pathology, social dysfunctioning is a key component – such that a recast to 'interper-

sonal pathology' has even been suggested – and therewith an important characteristic mal-adaptation (Hopwood, et al., 2013; Wilson et al., 2017).

In chapter 5, we examined social problems in a community sample of youth and in chapter 8, we examined interpersonal problems in a clinical sample of youth, both longitudinally. In both studies we found evidence that social difficulties are moderately to highly stable over time. This may be expected in a community sample, since overall socialproblems were low and youth did not receive an intervention for these social difficulties. However, it was also a notable finding in the clinical sample in which youth do receive treatment for, among other things, interpersonal difficulties. It may hint at what these social or interpersonal problems represent. While interpersonal interactions are typically situational and may differ from day-to-day and from context-to-context, they are part of characteristic interpersonal dynamics (Brown & Moskowitz, 1998; Shoda et al., 2002). Specifically in the context of persistent interpersonal problems, these may represent characteristic maladaptive interpersonal dynamics (Hopwood, 2018; Ringwald et al., 2021).

Personality pathology characterized by interpersonal dynamics and contextualized traits

Such maladaptive interpersonal dynamics may persistently and pervasively characterize one's interactions and are suggested to have a central role in personality pathology personality pathology (Hopwood et al., 2013; Wright et al., 2022). Moreover, and from the perspective of vulnerable youth as both social actors and motivated agents: interpersonal problems and personality traits seem strongly intertwined (Wright et al., 2015, 2016). That is, interpersonal problems contextualize personality traits (the person as social actor) in specific environments (the person as motivated agent) (Hopwood, 2018). We examined concurrent relations between these constructs in chapters 3, 5 and 7, and find evidence across these studies that indeed interpersonal problems are related to all five personality traits, and are related to neuroticism or negative affectivity in particular. To illustrate such maladaptive interpersonal dynamics, we took a more detailed perspective at the types of interpersonal problems vulnerable youth report in chapter 8, and found that youth in this sample mostly reported self-sacrificing and overly accommodating problems. They generally experience interpersonal problems related to excessive friendliness and submissiveness, like attempting to win the approval of others by being inoffensive and unassertive to maintain friendly relations (Vanheule et al., 2006; Wongpakaran et al., 2012).We did not examine the associations between personality traits and such specific types of interpersonal problems, but this would be a valuable direction for future studies (Du et al., 2021). Moreover, it seems that while this is informative for discerning general vulnerability, it may be too general to only recognize one's levels of maladaptive traits

(Kotov et al., 2010). For example, in chapter 9, it would have been too general to only know Emma's trait profile to really understand her difficulties. Her dismissive and demanding interpersonal style contextualized her maladaptive trait profile and sheds light on her difficulties in daily functioning.

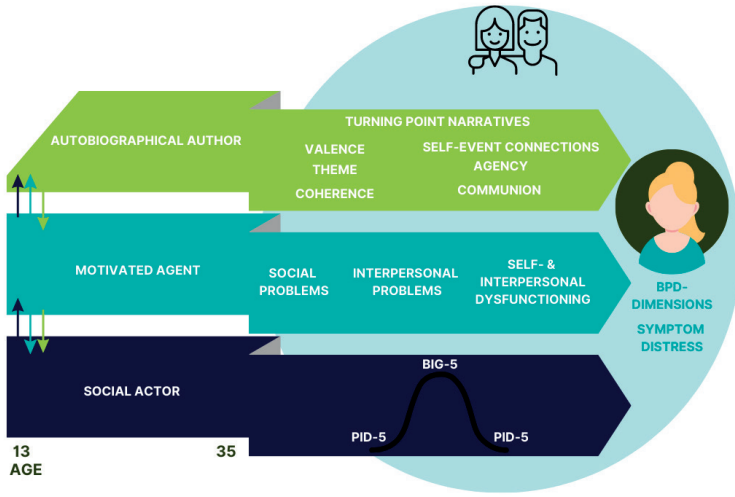
The fundamental and shared human motives of agency and communion may place such contextualized traits and interpersonal dynamics in a broader perspective (Abele, 2022; Hopwood, 2018). Generally, and possible to trace back to our evolutionary history, all individuals seem motivated 'to get ahead' (agency) and 'to get along' (communion) (McAdams, 2015b). These central dimensions are found to be manifested both in basic personality traits (Digman, 1997; Entringer et al., 2022) and in interpersonal behavior (Abele, 2022; Horowitz et al., 2006). It has been found that individuals' unique interactions may be characterized by the different methods or interpersonal behaviors they employ to satisfy these motives (Horowitz et al., 2006), which often seem particularly dysfunctional in individuals with high levels of maladaptive personality traits (Dawood et al., 2013; Du et al., 2021). Such persistent maladaptive interpersonal dynamics are suggested to constitute the core of personality pathology (Hopwood et al., 2013; Hopwood, 2018; Luyten & Fonagy, 2022), and underscores the value of both the standpoints of social actor *and* motivated agent for understanding personality pathology.

The developing social actor and motivated agent

Given the concurrent associations and the consecutive emergence of dispositional traits and social (mal)-adaptations, it seems natural to wonder whether personality traits predict interpersonal problems. This also constituted one of the core hypotheses of the DAE-model (Asendorpf & Motti–Stefanidi, 2018), presented in chapter 5**.** Our results did not support this hypothesis. This was unexpected, since previous studies did report bi-directional effects between personality traits and problem behavior in youth (Klimstra et al., 2010, 2014). Personality traits were also found to predict psychosocial functioning in adults with personality pathology (e.g., Wright et al., 2015), and problem behavior in children (e.g., De Clercq et al., 2008) or in turn problem behavior was found to predict personality traits (De Caluwé et al., 2013). Taking a step back from these results, it seems that numerous studies have investigated personality traits and problem or pathological behavior over time, and all find support for relations in different directions. This fits the multitude of models that have been suggested to describe personality development, like the cascade model we suggested in chapter 5 (Lyons-Ruth & Brumariu, 2021). A large body of research appears to demonstrate convincingly that personality development is a complex endeavor, possibly best described as a multi-dimensional and developmental process of intertwined individual and contextual characteristics (Klimstra & Denissen, 2017; Laceulle & van

Aken, 2018). More fruitful than arguing about which model is superior in describing this process, would be to recognize that models of development are not mutually exclusive and to move towards unraveling mechanisms of personality development and -pathology (Ormel et al., 2014).

Figure 1c. *The constructs that were examined for vulnerable youth as autobiographical authors, motivated agents and social actors*



Youth as autobiographical authors, motivated agents and social actors

Recently, it has been proposed that the consideration of one indispensable factor in personality development and -pathology has been missing: narrative identity (Dunlop et al., 2022; Lind, 2021). Synthesizing the narrative identity, interpersonal, and trait perspectives, may be an important step forward to increase understanding of the development of personality pathology (Dunlop et al., 2022; McAdams et al., 2004; Shiner et al., 2021). However, there are only few studies that examine narrative identity in relation to personality pathology, especially in youth. Hence, the narrative identity was the main focus of the second section of this dissertation. The inclusion of this perspective is useful for all individuals, but particularly relevant for youth as 1) narrative identity formation is one of the key challenges during this phase (McAdams & McLean, 2013), 2) (narrative) identity problems are an integral aspect of personality pathology (Jensen et al., 2020), 3) youth is a high-risk period for the onset of personality pathology (Sharp & Wall, 2018; Solmi et al., 2022) and 4) understanding how these processes coincide may contribute to a nuanced understanding of the development and consolidation of personality pathology (Shiner et al., 2021), which may hopefully reduce clinicians hesitance to detect and intervene on these problems (Bozzatello et al., 2019; Sharp & De Clercq, 2020).

There are numerous ways to consider one's narrative identity (e.g., a full life story interviews, divisions of the life in chapters, high-, low- or turning point events) and many narrative characteristics may be examined (McAdams, 2008; McLean et al., 2020). In this dissertation, we have considered the turning point narratives of youth. In chapter 6, we have described in detail how these narratives were collected, transcribed and coded in APOLO, to the best of our knowledge one of the first longitudinal research projects to collect these data in vulnerable youth. As such, substantial time and effort was spent to define the appropriate coding manuals. Adaptations were made to existing coding schedules (e.g., Adler, 2012), to increase our ability to code the three most important narrative factors reliably (McLean et al., 2020): motivational and affective themes (i.e., valence, theme, agency, communion), autobiographical reasoning (i.e., self-event connections) and structural aspects (i.e., coherence)

In chapter 7 and 8 we explored the nature of the narrative identity of vulnerable youth and relations with traits and adaptations. Youth often narrated stories with a negative valence, most frequently about relations (45%), (mental) health (17%) or achievement (14%). The characteristics of valence, self-event connection valence, agency and communion were consistently related in both studies. This is not surprising, after all they concern one story of one individual. Importantly, the construction of these stories has been found to follow different patterns in vulnerable and normative youth (McLean et al., 2013). While meaning making through stories has been found adaptive for normative individuals, 'making meaning of a difficult life', which often involves negative reasoning or contamination (i.e., the bad spoiling the good), may be maladaptive and compromise possibilities for growth (Banks & Salmon, 2013; McAdams et al., 2001; Sanderson & McKeough, 2005).

Personality pathology consolidated in personal stories

It is with the function of meaning making that narrative identity seems an indispensable factor for understanding personality, Personality development and -pathology. Building on the self as social actor and motivated agent, the self as autobiographical author perceives the (social) world through self-constructed stories. As Jean Paul Sartre (1938) put it "*A man is always a teller of tales, he lives surrounded by his stories and the stories of others. He sees everything that happens to him through them, and he tries to live his life as if he were recounting it".*

Of course a person is more than a story. In the chapters 7, 8 and 9 in this dissertation we investigated how these stories relate to adaptions and dispositions and together shed light on maladaptive personality development. In chapter 7, we found that levels of negative affectivity were negatively related to adaptive meaning making, a finding that was also reported in a different study on these data (de Moor et al., 2022) and in adults

(McAdams et al., 2004). Indeed, neuroticism generally seems to negatively influence (health) perception (Barlow et al., 2014; Powers & Oltmanns, 2013). Interpersonal dysfunctioning was also negatively related to adaptive meaning making in chapter 7, a finding that was confirmed with a different measure of interpersonal problems in chapter 8. More precisely, vulnerable youth who reported more interpersonal problems overall, and specifically related to non-assertiveness and coldness, narrated stories with more themes of thwarted agency and communion. In both chapter 7 and 8, we suggested that a certain profile of vulnerable youth seemed to emerge. A profile that in this general discussion is strengthened by the findings from the other studies. It may be concluded, from a nomothetic shared perspective, that generally vulnerable youth as social actors seem to show high levels of neuroticism or negative affectivity, while as motivated agents they struggle with severe interpersonal functioning problems, and as autobiographical authors they narrate personal stories about negative events, with negative self-event connections and themes of thwarted agency and communion. In chapter 7, our results pointed to this profile being typically labelled 'avoidant', and in chapter 8, we suggested that it hints at a 'passive patient role' (Arntz, 2012; Wilson et al., 2017), in line with what others have suggested based on life stories of troubled youth (McLean et al., 2013; Sanderson & McKeough, 2005).

However, as chapter 9 expounds in detail for Emma, and chapters 2 to 8 also suggest, luckily this is not where the story ends. Vulnerable youth as unique individuals show countless variations to this general conclusion. They have varying levels of (mal)-adaptive personality traits, varying levels and types of interpersonal problems, and of course highly unique personal stories with varying narrative characteristics. Thus, while the consideration of the shared and consistently related standpoints of vulnerable youth lead us to conclude that 'personality cannot be separated from pathology' (Luyten & Fonagy, 2022), it also underlines that – as we write in chapter 9 – '*It is more important to know what sort of person has a disease than to know what sort of disease a person has'.* To know this 'sort of person' it seems, is to know its unique layers of personality which may reflect both vulnerabilities *and* strengths. These strengths have not been the main focus of this dissertation, although they were indirectly taken into account in individuals' stories that sometimes narrated about growth and perseverance. They are additionally considered in the data-collection of APOLO (e.g., secure attachment, social support, and completion of developmental tasks). Future studies could (and should) take this perspective on pathways of personality development.

Reflection on main aims and clinical implications

The first aim of this dissertation was to increase our understanding of maladaptive pathways of personality development in vulnerable youth. Based on our results, I conclude that the integrative framework of personality development (McAdams, 2013) is

useful to examine maladaptive personality development in vulnerable youth. Gaining an understanding of youth as social actors, motivated agents and autobiographical authors, with – in every layer – characteristics that may add to their vulnerability as development unfolds, paints a nuanced picture of their personality and development. Moreover, by recognizing these consecutively emerging and interrelated layers, it becomes clear how maladaptive developmental pathways leading to personality pathology may come to exist (Sharp & Wall, 2018; Shiner, 2009; Shiner et al., 2021). Maladaptive dispositions may create a general vulnerability for developing psychological problems, which can become contextualized in persistent and maladaptive interpersonal dynamics over time. Typical for youth is a heightened sensitivity for such interpersonal dynamics, which may become defining experiences as construction of the narrative identity is the main challenge in this phase (e.g., Pasupathi, 2014). With the emergence of the personal narrative, the risk simultaneously emerges that – on top of an already existing vulnerability – maladaptive cognitions on the self, become intertwined in one's personal narrative (Jensen et al., 2020; Sajjadi et al., 2022). With that, functioning problems may become more severe, persistent and pathological. Considering this, it is not surprising that personality pathology typically 'has its onset' in youth. One's maladaptive meaning making may be the additional factor that maintains and enhances negative interpersonal cycles, thereby consolidating self- and interpersonal pathology that constitutes the core of personality pathology (Dimaggio et al., 2006; Hopwood, 2018; Sharp, 2020).

The second aim of this dissertation was to increase our understanding of personality pathology, such that its early-detection in vulnerable youth may be improved. As touched upon in detail in chapter 9 and referred to in the discussion of all other chapters, the findings of this dissertation naturally have important clinical implications. Taken together, it seems that 'to really know' any person, vulnerable or not, is to know them as social actor, motivated agent and autobiographical author (McAdams, 2013). Based on our findings supporting this perspective's usefulness for understanding youth and their (mal)-adaptive developmental pathways, it invites clinicians to consider all these standpoints in clinical practice. Evaluating these layers of self, in the context in which they develop, allows clinicians to formulate a nuanced perspective on unique young persons, as illustrated in chapter 9 with Emma.

This perspective may furthermore provide clinicians with an alternative perspective on general personality pathology. The empirical findings of the studies in this dissertation, placed in their broader theoretical context, provide compelling evidence that personality pathology is more nuanced than categorizing youth along sets of criteria (Hopwood et al., 2018). Instead clinicians could adopt this framework and conceptualize personality pathology as a dimensional and layered construct that includes 1)

general vulnerabilities (e.g., levels of personality trait dimensions, particularly neuroticism) 2) characteristic mal-adaptations (e.g., severity of interpersonal problems) and 3) a dysfunctional personal narrative (e.g., maladaptive narrative characteristics), which develops situated in a broad environmental context (e.g., family climate and aversive life events; McAdams & Pals, 2006). If this would be clinicians' conceptual and general 'outline' of personality pathology, this outline may be colored in by each unique individual they encounter and enable them to truly understand 'how this person became who he/she is'. Importantly, this nuanced perspective may not only help clinicians to understand vulnerable youth, it may also be valuable to help youth seeking psychological care understand themselves. As such, this framework could be used to structure collaborative clinical assessment and to provide feedback following such assessment (Finn, 2012; Tharinger et al., 2008). This seems particularly important for youth, as clinical assessment in this phase coincides with the construction of narrative identity. Hence, clinicians should be aware of the large and defining impact their feedback may have on the self-concepts of youth (Finn & Martin, 2013; Tharinger et al., 2008).

Reflections, limitations, and future directions

In reflecting on the findings of this dissertation in this general discussion there are at least three important results or arguments that I have not addressed.

First, the role of the environment and life experiences. In chapter 4 and 5, we have considered the role of parental (autonomy-)support, conflict and warmth. Individual personality development is always situated in a context, and parents' influence has been found of continuous importance, both in normative and in maladaptive personality development (Pomerantz & Thompson, 2008; Shiner, 2009). Our findings concerning the role of parents differed substantially. In chapter 3, considering a clinical sample of youth, we found no effect of support or conflict with parents on symptom distress. In turn, in chapter 4, considering a community sample of youth, relations with parents seemed one of the most important factors driving personality development. The demonstrated negative influence of maladaptive personality traits on the parent-child relationship was as expected, but particularly notable in this study was the positive predictive influence of parents. Social problems did not decrease, but in contrast enhanced the parent-child relationship, possibly urging parents to support their child in this difficult phase (Kerr & Stattin, 2003). These contrasting findings may reflect the differing family environments clinical versus community youth most likely experience. It may be that for vulnerable youth, peers play a more important role than parents, especially in late adolescence and emerging adulthood (Skabeikyte-Norkiene et al., 2022). Parental involvement could also be lower in this group, who may more often experience withdrawn or neglectful parenting (Reich et

al., 1997). However, in contrast to our results, parents have frequently been found to exert a strong negative influence on the development of youth (e.g., Stepp et al. 2014). An invalidating environment is for instance suggested to be particularly related to development of personality pathology (Musser et al., 2018). These findings raise important questions concerning the environmental context of vulnerable youth and its influence on personality development. This includes the influence of the often many aversive life events these youth experience. While we indirectly considered the impact of trauma or aversive family climates in this dissertation through the turning point narratives which often narrated about these experiences, future studies could focus on such negative, or in turn, positive environmental contexts.

Second, concerning the separation of the layers of the social actor and the motivated agent. This distinction has been formulated in many different ways, and has frequently been debated. It has for example been termed 'trait versus state', 'core versus surface' or – as we did – dispositions versus adaptations. The key idea is that these distinguish between constructs that are more stable, and constructs that are more variable, which seems valuable in our understanding of more stable traits versus variable pathology (DeYoung et al., 2022; Hopwood et al., 2013). However, this distinction may not be as clear-cut as it seems. From a theoretical perspective, we suggested in chapter 5, that through self-stabilizing and -destabilizing processes, traits may become states and vice versa during certain phases of development (Asendorpf & Motti–Stefanidi, 2018). This hints at the value of multiple models of development that are not mutually exclusive, but may be phase-dependent to best describe personality development (Klimstra & Denissen, 2017; Ormel et al., 2013, 2014). However, from a methodological perspective, this issue may be more complex. For example, items from questionnaires were evaluated for mostly representing trait- or state-like properties (Henry & Mõttus, 2020) and it was concluded that a 'noisy consensus' seemed to emerge (p. 276). This suggests that this distinction appeared difficult, but possible to make. In this dissertation we have used different measures to examine dispositions and adaptations, which may have partially overlapping content regarding trait- or state-like properties. For instance, concerning the items of the personality trait questionnaires we used, it has been shown that normative, maladaptive and pathological properties overlap (Suzuki et al., 2015; Widiger, 2011). This issue presents a challenge for future studies. For example, to be extra diligent in the inclusion of items and selection of measures, evaluating their trait- and state content. In addition, in longitudinal samples it may be evaluated whether constructs, conceptualized as 'traits' or 'states', indeed represent these by considering their relative stabilities. We have considered such item properties, when conceptualizing the study in chapter 5. However, despite our diligence, the construct stabilities of the personality traits and social problems (conceptualized as mal-adaptions), were relatively similar.

Third, concerning the influence of perception that involves all measures. In chapters 2 to 8 of this dissertation we solely relied on youth their self-reported traits, social problems and narratives. While youth are naturally most central in examining personality development in youth, and subjective perception and meaning making are – as demonstrated in our studies – a key element of (dys-)functioning, this reliance on self-reports may bias our understanding of developmental processes and mechanisms. For this reason, it is for example suggested to always include informant-reports in clinical assessment, particularly when assessing personality pathology in youth (Hopwood & Bornstein, 2014; Tackett et al., 2013). Given the importance of the broader context in which personality development takes place (McAdams & Pals, 2006), future studies should include such informant-reports to integrate perspectives on personality development, both for youth generally and individually. In chapter 5, it is described how we include these informant-reports in the APOLO project. Furthermore, in chapter 9**,** we included such informant information when considering Emma, by taking into account the perspective of her parents. This provided context to Emma's story and revealed both similarities and discrepancies. Such discrepancies may provide additional and important information for understanding a young person in their unique context (Tackett et al., 2013).

Key-take aways and how the story may continue…

It may be stated that '*if every human life is a unique work of art, then science enters the picture when we begin to sense regularities amid all the diversity*' (McAdams, 2015, p.2). Contemplating these regularities, the first key take-away of this dissertation may be that '*we are all alike*'. In reflecting on patterns and elements of development, of traits, adaptations and stories, it is striking how development unfolds along the same general outline. All humans, vulnerable or not, may be characterized by the same five trait dimensions, who face the same developmental challenges in shared developmental phases that consecutively emerge in a similar fashion. They furthermore share the motivation to get ahead an along and all look for ways to satisfy these needs throughout development. Finally, all humans construct a story, which can be characterized along the same characteristics.

Yet, contemplating the lives of all the, more than two thousand, individual young persons that have contributed to this dissertation by allowing me to use their data, the second key take-away of this dissertation is that '*we are all unique*'. Like work of arts, which may have been painted with similar brushes, on a similar canvas, maybe even using the same colors, still not one is the same. Every human being, vulnerable or not, has a unique trait profile, with unique and contextualized day-to-day interactions that make up unique interpersonal dynamics. And finally, all humans have a unique story.

Considering these two key take-aways, it may be concluded that the proposed directions for future studies generally converge on the co-consideration of nomothetic and idiographic perspectives, the general and the particular. Generally, this is not a 'new' idea (Allport, 1961; Hermans, 1988). However, it seems a particularly promising direction for the only recently acknowledged value of an integrative, developmental and dimensional perspective (McAdams, 2013) on personality pathology in vulnerable youth.

REFERENCES

Abele, A. E. (2022). Agency and communion as fundamental dimensions of social judgment – and Bogdan Wojciszke's brilliant idea on perspective. *Social Psychological Bulletin*, *17*, e8157. https://doi.org/10.32872/spb.8157

Adler, J. M. (2012). Living into the story: Agency and coherence in a longitudinal study of narrative identity development and mental health over the course of psychotherapy. *Journal of Personality and Social Psychology*, *102*(2), 367–389. https://doi.org/10.1037/a0025289

Allport, G. W. (1961). *Pattern and growth in personality.* Holt, Reinhart & Winston.

Asendorpf, J. B., & Motti–Stefanidi, F. (2018). Mediated Disposition–Environment Transactions: The Dae Model. *European Journal of Personality*, *32*(3), 167–185. https://doi.org/10.1002/per.2118

Banks, M. V., & Salmon, K. (2013). Reasoning about the self in positive and negative ways: Relationship to psychological functioning in young adulthood. *Memory*, *21*(1), 10–26. https://doi.org/10.1080/09658211.2012.707213

Barlow, D. H., Ellard, K. K., Sauer-Zavala, S., Bullis, J. R., & Carl, J. R. (2014). The Origins of Neuroticism. *Perspectives on Psychological Science*, *9*(5), 481–496. https://doi.org/10.1177/1745691614544528

Bozzatello, P., Bellino, S., Bosia, M., & Rocca, P. (2019). Early Detection and Outcome in Borderline Personality Disorder. *Frontiers in Psychiatry*, *10*, 710. https://doi.org/10.3389/fpsyt.2019.00710

Brown, K. W., & Moskowitz, D. S. (1998). Dynamic stability of behavior: The rhythms of our interpersonal lives. *Journal of personality*, *66*(1), 105-134. https://doi.org/10.1111/1467-6494.00005

Brandes, C. M., Herzhoff, K., Smack, A. J., & Tackett, J. L. (2019). The p Factor and the n Factor: Associations Between the General Factors of Psychopathology and Neuroticism in Children. *Clinical Psychological Science*, *7*(6), 1266–1284. https://doi.org/10.1177/2167702619859332

Brown, K. W., & Moskowitz, D. S. (1998). Dynamic Stability of Behavior: The Rhythms of Our Interpersonal Lives. *Journal of Personality*, *66*(1), 105–134. https://doi.org/10.1111/1467-6494.00005

Brown, N. R., Kallivayalil, D., Mendelsohn, M., & Harvey, M. R. (2012). Working the double edge: Unbraiding pathology and resiliency in the narratives of early-recovery trauma survivors. *Psychological Trauma: Theory, Research, Practice, and Policy*, *4*(1), 102–111. https://doi.org/10.1037/a0024969

Caspi, A., Houts, R. M., Belsky, D. W., Goldman-Mellor, S. J., Harrington, H., Israel, S., Meier, M. H., Ramrakha, S., Shalev, I., Poulton, R., & Moffitt, T. E. (2014). The p Factor: One General Psychopathology Factor in the Structure of Psychiatric Disorders? *Clinical Psychological Science*, *2*(2), 119–137. https://doi.org/10.1177/2167702613497473

Chanen, A. M., Nicol, K., Betts, J. K., & Thompson, K. N. (2020). Diagnosis and Treatment of Borderline Personality Disorder in Young People. *Current Psychiatry Reports*, *22*(5), 25. https://doi.org/10.1007/s11920-020-01144-5

Charlton, B. G. (2009). Why are modern scientists so dull? How science selects for perseverance and sociability at the expense of intelligence and creativity. *Medical Hypotheses*, *72*(3), 237–243. https://doi.org/10.1016/j.mehy.2008.11.020

Chmielewski, M., Bagby, R. M., Markon, K., Ring, A. J., & Ryder, A. G. (2014). Openness to Experience, Intellect, Schizotypal Personality Disorder, and Psychoticism: Resolving the Controversy. *Journal of Personality Disorders*, *28*(4), 483–499. https://doi.org/10.1521/pedi_2014_28_128

Collins, W. A., & Laursen, B. (2004). Changing Relationships, Changing Youth: Interpersonal Contexts of Adolescent Development. *The Journal of Early Adolescence*, *24*(1), 55–62. https://doi.org/10.1177/0272431603260882

Dawood, S., Thomas, K. M., Wright, A. G. C., & Hopwood, C. J. (2013). Heterogeneity of Interpersonal Problems Among Depressed Young Adults: Associations With Substance Abuse and Pathological

Personality Traits. *Journal of Personality Assessment*, *95*(5), 513–522. https://doi.org/10.1080/00223891.2013.781031

De Caluwé, E., Decuyper, M., & De Clercq, B. (2013). The child behavior checklist dysregulation profile predicts adolescent DSM-5 pathological personality traits 4 years later. *European Child & Adolescent Psychiatry*, *22*(7), 401–411. https://doi.org/10.1007/s00787-013-0379-9

De Clercq, B., De Fruyt, F., De Bolle, M., Van Hiel, A., Markon, K. E., & Krueger, R. F. (2014). The Hierarchical Structure and Construct Validity of the PID-5 Trait Measure in Adolescence: DSM-5 Trait Structure in Adolescents. *Journal of Personality*, *82*(2), 158–169. https://doi.org/10.1111/jopy.12042

De Clercq, B., Van Leeuwen, K., De Fruyt, F., Van Hiel, A., & Mervielde, I. (2008). Maladaptive Personality Traits and Psychopathology in Childhood and Adolescence: The Moderating Effect of Parenting. *Journal of Personality*, *76*(2), 357–383. https://doi.org/10.1111/j.1467-6494.2007.00489.x

De Moor, E. L., Van der Graaff, J., Koster, N., Laceulle, O. M., & Branje, S. (2022). The relation between self-event connections and personality functioning in youth with severe psychopathology. *Journal of Personality*, *90*(5), 799–816. https://doi.org/10.1111/jopy.12697

DeYoung, C. G., Carey, B. E., Krueger, R. F., & Ross, S. R. (2016). Ten aspects of the Big Five in the Personality Inventory for DSM–5. *Personality Disorders: Theory, Research, and Treatment*, *7*(2), 113–123. https://doi.org/10.1037/per0000170

DeYoung, C. G., Chmielewski, M., Clark, L. A., Condon, D. M., Kotov, R., Krueger, R. F., Lynam, D. R., Markon, K. E., Miller, J. D., Mullins-Sweatt, S. N., Samuel, D. B., Sellbom, M., South, S. C., Thomas, K. M., Watson, D., Watts, A. L., Widiger, T. A., Wright, A. G. C., & the HiTOP Normal Personality Workgroup. (2022). The distinction between symptoms and traits in the Hierarchical Taxonomy of Psychopathology (HiTOP). *Journal of Personality*, *90*(1), 20–33. https://doi.org/10.1111/jopy.12593

Digman, J. M. (1997). Higher-order factors of the Big Five. *Journal of Personality and Social Psychology*, *73*(6), 1246–1256. https://doi.org/10.1037/0022-3514.73.6.1246

Dimaggio, G., Semerari, A., Carcione, A., Procacci, M., & Nicolò, G. (2006). Toward a Model of Self Pathology Underlying Personality Disorders: Narratives, Metacognition, Interpersonal Cycles and Decision-Making Processes. *Journal of Personality Disorders*, *20*(6), 597–617. https://doi.org/10.1521/pedi.2006.20.6.597

Du, T. V., Yardley, A. E., & Thomas, K. M. (2021). Mapping Big Five Personality Traits Within and Across Domains of Interpersonal Functioning. *Assessment*, *28*(5), 1358–1375. https://doi.org/10.1177/1073191120913952

Dunlop, W. L., Lind, M., & Hopwood, C. J. (2022). Synthesizing contemporary integrative interpersonal theory and the narrative identity approach to examine personality dynamics and regulatory processes. *Journal of Personality*, jopy.12707. https://doi.org/10.1111/jopy.12707

Entringer, T. M., Gebauer, J. E., & Paulhus, D. L. (2022). Extracting Agency and Communion From the Big Five: A Four-Way Competition. *Assessment*, *29*(6), 1216–1235. https://doi.org/10.1177/10731911211003978

Finn, S. E. (2012). Implications of Recent Research in Neurobiology for Psychological Assessment. *Journal of Personality Assessment*, *94*(5), 440–449. https://doi.org/10.1080/00223891.2012.700665

Finn, S. E., & Martin, H. (2013). Therapeutic assessment: Using psychological testing as brief therapy. In K. F. Geisinger, B. A. Bracken, J. F. Carlson, J.-I. C. Hansen, N. R. Kuncel, S. P. Reise, & M. C. Rodriguez (Eds.), *APA handbook of testing and assessment in psychology, Vol. 2: Testing and assessment in clinical and counseling psychology.* (pp. 453–465). American Psychological Association. https://doi.org/10.1037/14048-026

Griffith, J. W., Zinbarg, R. E., Craske, M. G., Mineka, S., Rose, R. D., Waters, A. M., & Sutton, J. M. (2010). Neuroticism as a common dimension in the internalizing disorders. *Psychological Medicine*, *40*(7), 1125–1136. https://doi.org/10.1017/S0033291709991449

Henry, S., & Mõttus, R. (2020). Traits and Adaptations: A Theoretical Examination and New Empirical Evidence. *European Journal of Personality*, *34*(3), 265–284. https://doi.org/10.1002/per.2248

Hermans, H. J. M. (1988). On the Integration of Nomothetic and Idiographic Research Methods in the Study of Personal Meaning. *Journal of Personality*, *56*(4), 785–812. https://doi.org/10.1111/j.1467-6494.1988.tb00477.x

Hopwood, C. J. (2018). Interpersonal Dynamics in Personality and Personality Disorders. *European Journal of Personality*, *32*(5), 499–524. https://doi.org/10.1002/per.2155

Hopwood, C. J., & Bornstein, R. F. (Eds.). (2014). *Multimethod clinical assessment*. Guilford Publications.

Hopwood, C. J., Donnellan, M. B., & Zanarini, M. C. (2010). Temperamental and acute symptoms of borderline personality disorder: Associations with normal personality traits and dynamic relations over time. *Psychological Medicine*, *40*(11), 1871–1878. https://doi.org/10.1017/S0033291709992108

Hopwood, C. J., Kotov, R., Krueger, R. F., Watson, D., Widiger, T. A., Althoff, R. R., Ansell, E. B., Bach, B., Michael Bagby, R., Blais, M. A., Bornovalova, M. A., Chmielewski, M., Cicero, D. C., Conway, C., De Clercq, B., De Fruyt, F., Docherty, A. R., Eaton, N. R., Edens, J. F., … Zimmermann, J. (2018). The time has come for dimensional personality disorder diagnosis: The time has come for dimensional personality disorder diagnosis. *Personality and Mental Health*, *12*(1), 82–86. https://doi.org/10.1002/pmh.1408

Hopwood, C. J., Morey, L. C., Donnellan, M. B., Samuel, D. B., Grilo, C. M., McGlashan, T. H., Shea, M. T., Zanarini, M. C., Gunderson, J. G., & Skodol, A. E. (2013). Ten-Year Rank-Order Stability of Personality Traits and Disorders in a Clinical Sample: Stability of Traits and Disorders. *Journal of Personality*, *81*(3), 335–344. https://doi.org/10.1111/j.1467-6494.2012.00801.x

Hopwood, C. J., Wright, A. G. C., Ansell, E. B., & Pincus, A. L. (2013). The Interpersonal Core of Personality Pathology. *Journal of Personality Disorders*, *27*(3), 270–295. https://doi.org/10.1521/pedi.2013.27.3.270

Horowitz L. M., Alden, L.E., Wiggins, J.S., & Pincus, A.L. (2000). *IIP-64/IIP-32 professional manual*. San

Antonio, TX: Psychological Corporation.

Horowitz, L. M., Wilson, K. R., Turan, B., Zolotsev, P., Constantino, M. J., & Henderson, L. (2006). How Interpersonal Motives Clarify the Meaning of Interpersonal Behavior: A Revised Circumplex Model. *Personality and Social Psychology Review*, *10*(1), 67–86. https://doi.org/10.1207/s15327957pspr1001_4

Jensen, R. A. A., Thomsen, D. K., Bliksted, V. F., & Ladegaard, N. (2020). Narrative Identity in Psychopathology: A Negative Past and a Bright but Foreshortened Future. *Psychiatry Research*, *290*, 113103. https://doi.org/10.1016/j.psychres.2020.113103

Kerr, M., & Stattin, H. (2003). Parenting of adolescents: Action or reaction?. In *Children's influence on family dynamics* (pp. 131-162). Routledge.

Klimstra, T. A., Akse, J., Hale, W. W., Raaijmakers, Q. A. W., & Meeus, W. H. J. (2010). Longitudinal associations between personality traits and problem behavior symptoms in adolescence. *Journal of Research in Personality*, *44*(2), 273–284. https://doi.org/10.1016/j.jrp.2010.02.004

Klimstra, T. A., & Denissen, J. J. A. (2017). A theoretical framework for the associations between identity and psychopathology. *Developmental Psychology*, *53*(11), 2052–2065. https://doi.org/10.1037/dev0000356

Klimstra, T. A., Luyckx, K., Hale III, W. W., & Goossens, L. (2014). Personality and externalizing behavior in the transition to young adulthood: The additive value of personality facets. *Social Psychiatry and Psychiatric Epidemiology*, *49*(8), 1319–1333. https://doi.org/10.1007/s00127-014-0827-y

Kotov, R., Gamez, W., Schmidt, F., & Watson, D. (2010). Linking "big" personality traits to anxiety, depressive, and substance use disorders: A meta-analysis. *Psychological Bulletin*, *136*(5), 768–821. https://doi.org/10.1037/a0020327

Laceulle, O. M., & van Aken, M. A. G. (2018). Transactions of Personality and the Social Environment During Development. In V. Zeigler-Hill & T. Shackelford, *The SAGE Handbook of Personality and Individual Differences: Volume II: Origins of Personality and Individual Differences* (pp. 241–258). SAGE Publications Ltd. https://doi.org/10.4135/9781526451200.n14

Lahey, B. B. (2009). Public health significance of neuroticism. *American Psychologist*, *64*(4), 241–256. https://doi.org/10.1037/a0015309

Lind, M. (2021). ICD-11 Personality Disorder: The Indispensable Turn to Narrative Identity. *Frontiers in Psychiatry*, *12*, 642696. https://doi.org/10.3389/fpsyt.2021.642696

Luyten, P., & Fonagy, P. (2022). Integrating and differentiating personality and psychopathology: A psychodynamic perspective. *Journal of Personality*, *90*(1), 75–88. https://doi.org/10.1111/jopy.12656

Lyons-Ruth, K., & Brumariu, L. E. (2021). Emerging child competencies and personality pathology: Toward a Developmental Cascade model of BPD. *Current Opinion in Psychology*, *37*, 32–38. https://doi.org/10.1016/j.copsyc.2020.07.004

Maples, J. L., Carter, N. T., Few, L. R., Crego, C., Gore, W. L., Samuel, D. B., Williamson, R. L., Lynam, D. R., Widiger, T. A., Markon, K. E., Krueger, R. F., & Miller, J. D. (2015). Testing whether the DSM-5 personality disorder trait model can be measured with a reduced set of items: An item response theory investigation of the Personality Inventory for DSM-5. *Psychological Assessment, 27*(4), 1195–1210. https://doi.org/10.1037/pas0000120

McAdams, D. P. (2013). The Psychological Self as Actor, Agent, and Author. *Perspectives on Psychological Science*, *8*(3), 272–295. https://doi.org/10.1177/1745691612464657

McAdams, D. P. (2015a). *The art and science of personality development*. The Guilford Press.

McAdams, D. P. (2015b). Three Lines of Personality Development: A Conceptual Itinerary. *European Psychologist*, *20*(4), 252–264. https://doi.org/10.1027/1016-9040/a000236

McAdams, D. P., Anyidoho, N. A., Brown, C., Huang, Y. T., Kaplan, B., & Machado, M. A. (2004). Traits and Stories: Links Between Dispositional and Narrative Features of Personality. *Journal of Personality*, *72*(4), 761–784. https://doi.org/10.1111/j.0022-3506.2004.00279.x

McAdams, D. P., & McLean, K. C. (2013). Narrative Identity. *Current Directions in Psychological Science*, *22*(3), 233–238. https://doi.org/10.1177/0963721413475622

McAdams, D. P., & Pals, J. L. (2006). A new Big Five: Fundamental principles for an integrative science of personality. *American Psychologist*, *61*(3), 204–217. https://doi.org/10.1037/0003-066X.61.3.204

McAdams, D. P., Reynolds, J., Lewis, M., Patten, A. H., & Bowman, P. J. (2001). When Bad Things Turn Good and Good Things Turn Bad: Sequences of Redemption and Contamination in Life Narrative and their Relation to Psychosocial Adaptation in Midlife Adults and in Students. *Personality and Social Psychology Bulletin*, *27*(4), 474–485. https://doi.org/10.1177/0146167201274008

McCroskey, J., Heisel, A., & Richmond, V. (2001). Eysenck's BIG THREE and communication traits: Three correlational studies. *Communication Monographs*, *68*(4), 360–366. https://doi.org/10.1080/03637750128068

McLean, K. C., Syed, M., Pasupathi, M., Adler, J. M., Dunlop, W. L., Drustrup, D., Fivush, R., Graci, M. E., Lilgendahl, J. P., Lodi-Smith, J., McAdams, D. P., & McCoy, T. P. (2020). The empirical

structure of narrative identity: The initial Big Three. *Journal of Personality and Social Psychology*, *119*(4), 920–944. https://doi.org/10.1037/pspp0000247

McLean, K. C., Wood, B., & Breen, A. V. (2013). Reflecting on a Difficult Life: Narrative Construction in Vulnerable Adolescents. *Journal of Adolescent Research*, *28*(4), 431–452. https://doi.org/10.1177/0743558413484355

Miller, J. D., & Pilkonis, P. A. (2006). Neuroticism and Affective Instability: The Same or Different? *American Journal of Psychiatry, 163*(5), 839-845.

Mulder, R. T., Newton-Howes, G., Crawford, M. J., & Tyrer, P. J. (2011). The Central Domains of Personality Pathology in Psychiatric Patients. *Journal of Personality Disorders*, *25*(3), 364–377. https://doi.org/10.1521/pedi.2011.25.3.364

Musser, N., Zalewski, M., Stepp, S., & Lewis, J. (2018). A systematic review of negative parenting practices predicting borderline personality disorder: Are we measuring biosocial theory's 'invalidating environment'? *Clinical Psychology Review*, *65*, 1–16. https://doi.org/10.1016/j.cpr.2018.06.003

Ormel, J., Jeronimus, B. F., Kotov, R., Riese, H., Bos, E. H., Hankin, B., Rosmalen, J. G. M., & Oldehinkel, A. J. (2013). Neuroticism and common mental disorders: Meaning and utility of a complex relationship. *Clinical Psychology Review*, *33*(5), 686–697. https://doi.org/10.1016/j.cpr.2013.04.003

Ormel, J., Laceulle, O. M., & Jeronimus, B. F. (2014). *Why Personality and Psychopathology Are Correlated: A Developmental Perspective Is a First Step but More Is Needed*. *European Journal of Personality*, *28*(4), 396-398

Pasupathi, M. (2014). Identity: Commentary: Identity Development: Dialogue Between Normative and Pathological Developmental Approaches. *Journal of Personality Disorders*, *28*(1), 113–120. https://doi.org/10.1521/pedi.2014.28.1.113

Ploubidis, G. B., & Frangou, S. (2011). Neuroticism and psychological distress: To what extent is their association due to person-environment correlation? *European Psychiatry*, *26*(1), 1–5. https://doi.org/10.1016/j.eurpsy.2009.11.003

Pomerantz, E. M., & Thompson, R. A. (2008). Parents' role in children's personality development: The psychological resource principle. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 351–374). The Guilford Press.

Powers, A. D., & Oltmanns, T. F. (2013). Personality Pathology as a Risk Factor for Negative Health Perception. *Journal of Personality Disorders*, *27*(3), 359–370. https://doi.org/10.1521/pedi_2013_27_083

Ringwald, W. R., Hopwood, C. J., Pilkonis, P. A., & Wright, A. G. C. (2021). Dynamic features of affect and interpersonal behavior in relation to general and specific personality pathology. *Personality Disorders: Theory, Research, and Treatment*, *12*(4), 365–376. https://doi.org/10.1037/per0000469

Sajjadi, S. F., Gross, J., Sellbom, M., & Hayne, H. (2022). Narrative identity in borderline personality disorder. *Personality Disorders: Theory, Research, and Treatment*, *13*(1), 12–23. https://doi.org/10.1037/per0000476

Samuel, D., & Widiger, T. (2008). A meta-analytic review of the relationships between the five-factor model and DSM-IV-TR personality disorders: A facet level analysis☆. *Clinical Psychology Review*, *28*(8), 1326–1342. https://doi.org/10.1016/j.cpr.2008.07.002

Sanderson, A., & McKeough, A. (2005). A narrative analysis of behaviourally troubled adolescents' life stories. *Narrative Inquiry*, *15*(1), 127–160. https://doi.org/10.1075/ni.15.1.07san

Saulsman, L. M., & Page, A. C. (2004). The five-factor model and personality disorder empirical literature: A meta-analytic review. *Clinical Psychology Review*, *23*(8), 1055–1085. https://doi.org/10.1016/j.cpr.2002.09.001

Sharp, C. (2020). Adolescent Personality Pathology and the Alternative Model for Personality Disorders: Self Development as Nexus. *Psychopathology*, *53*(3–4), 198–204. https://doi.org/10.1159/000507588

Sharp, C., & De Clercq, B. (2020). Personality Pathology in Youth. In C. W. Lejuez & K. L. Gratz (Eds.), *The Cambridge Handbook of Personality Disorders* (1st ed., pp. 74–90). Cambridge University Press. https://doi.org/10.1017/9781108333931.015

Sharp, C., & Wall, K. (2018). Personality pathology grows up: Adolescence as a sensitive period. *Current Opinion in Psychology*, *21*, 111–116. https://doi.org/10.1016/j.copsyc.2017.11.010

Sharp, C., Wright, A. G. C., Fowler, J. C., Frueh, B. C., Allen, J. G., Oldham, J., & Clark, L. A. (2015). The structure of personality pathology: Both general ('g') and specific ('s') factors? *Journal of Abnormal Psychology*, *124*(2), 387–398. https://doi.org/10.1037/abn0000033

Shiner, R. L. (2009). The development of personality disorders: Perspectives from normal personality development in childhood and adolescence. *Development and Psychopathology*, *21*(3), 715–734. https://doi.org/10.1017/S0954579409000406

Shiner, R. L., Klimstra, T. A., Denissen, J. J., & See, A. Y. (2021). The development of narrative identity and the emergence of personality disorders in adolescence. *Current Opinion in Psychology*, *37*, 49–53. https://doi.org/10.1016/j.copsyc.2020.07.024

Shoda, Y., LeeTiernan, S., & Mischel, W. (2002). Personality as a Dynamical System: Emergence of Stability and Distinctiveness from Intra and Interpersonal Interactions. *Personality and Social Psychology Review*, *6*(4), 316–325. https://doi.org/10.1207/S15327957PSPR0604_06

Skabeikyte-Norkiene, G., Sharp, C., Kulesz, P. A., & Barkauskiene, R. (2022). Personality pathology in adolescence: Relationship quality with parents and peers as predictors of the level of personality functioning. *Borderline Personality Disorder and Emotion Dysregulation*, *9*(1), 31. https://doi.org/10.1186/s40479-022-00202-z

Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Salazar de Pablo, G., Il Shin, J., Kirkbride, J. B., Jones, P., Kim, J. H., Kim, J. Y., Carvalho, A. F., Seeman, M. V., Correll, C. U., & Fusar-Poli, P. (2022). Age at onset of mental disorders worldwide: Large-scale meta-analysis of 192 epidemiological studies. *Molecular Psychiatry*, *27*(1), 281–295. https://doi.org/10.1038/s41380-021-01161-7

Suzuki, T., Samuel, D. B., Pahlen, S., & Krueger, R. F. (2015). DSM-5 alternative personality disorder model traits as maladaptive extreme variants of the five-factor model: An item-response theory analysis. *Journal of Abnormal Psychology*, *124*(2), 343–354. https://doi.org/10.1037/abn0000035

Tackett, J. L., Herzhoff, K., Balsis, S., & Cooper, L. (2016). Toward a Unifying Perspective on Personality Pathology Across the Life Span. In D. Cicchetti (Ed.), *Developmental Psychopathology* (pp. 1–40). John Wiley & Sons, Inc. https://doi.org/10.1002/9781119125556.devpsy323

Tackett, J. L., Herzhoff, K., Reardon, K. W., Smack, A. J., & Kushner, S. C. (2013). The relevance of informant discrepancies for the assessment of adolescent personality pathology. *Clinical Psychology: Science and Practice*, *20*(4), 378–392. https://doi.org/10.1111/cpsp.12048

Tharinger, D. J., Finn, S. E., Hersh, B., Wilkinson, A., Christopher, G. B., & Tran, A. (2008). Assessment feedback with parents and preadolescent children: A collaborative approach. *Professional Psychology: Research and Practice*, *39*(6), 600–609. https://doi.org/10.1037/0735-7028.39.6.600

Van Dijk, I., Krueger, R. F., & Laceulle, O. M. (2021). DSM–5 alternative personality disorder model traits as extreme variants of five-factor model traits in adolescents. *Personality Disorders: Theory, Research, and Treatment*, *12*(1), 59–69. https://doi.org/10.1037/per0000409

Vanheule, S., Desmet, M., & Rosseel, Y. (2006). The factorial structure of the Dutch translation of the Inventory of Interpersonal Problems: A test of the long and short versions. *Psychological Assessment*, *18*(1), 112–117. https://doi.org/10.1037/1040-3590.18.1.112

Widiger, T. A. (2011). Personality and psychopathology. *World Psychiatry*, *10*(2), 103–106. https://doi.org/10.1002/j.2051-5545.2011.tb00024.x

Widiger, T. A., Lynam, D. R., Miller, J. D., & Oltmanns, T. F. (2012). Measures to Assess Maladaptive Variants of the Five-Factor Model. *Journal of Personality Assessment*, *94*(5), 450–455. https://doi.org/10.1080/00223891.2012.677887

Widiger, T. A., & Oltmanns, J. R. (2017). Neuroticism is a fundamental domain of personality with enormous public health implications. *World Psychiatry*, *16*(2), 144–145. https://doi.org/10.1002/wps.20411

Wilson, S., Stroud, C. B., & Durbin, C. E. (2017). Interpersonal dysfunction in personality disorders: A meta-analytic review. *Psychological Bulletin*, *143*(7), 677–734. https://doi.org/10.1037/bul0000101

Wongpakaran, T., Wongpakaran, N., Sirithepthawee, U., Pratoomsri, W., Burapakajornpong,

N., Rangseekajee, P., ... & Temboonkiat, A. (2012). Interpersonal problems among psychiatric outpatients and non-clinical samples. *Singapore Med J*, *53*(7), 481-487.

Wright, A. G. C., Calabrese, W. R., Rudick, M. M., Yam, W. H., Zelazny, K., Williams, T. F., Rotterman, J. H., & Simms, L. J. (2015). Stability of the DSM-5 Section III pathological personality traits and their longitudinal associations with psychosocial functioning in personality disordered individuals. *Journal of Abnormal Psychology*, *124*(1), 199–207. https://doi.org/10.1037/abn0000018

Wright, A. G. C., Ringwald, W. R., Hopwood, C. J., & Pincus, A. L. (2022). It's time to replace the personality disorders with the interpersonal disorders. *American Psychologist*, *77*(9), 1085–1099. https://doi.org/10.1037/amp0001087

Wright, A. G. C., Zalewski, M., Hallquist, M. N., Hipwell, A. E., & Stepp, S. D. (2016). Developmental Trajectories of Borderline Personality Disorder Symptoms and Psychosocial Functioning in Adolescence. *Journal of Personality Disorders*, *30*(3), 351–372. https://doi.org/10.1521/pedi_2015_29_200

Yin, K., Lee, P., Sheldon, O. J., Li, C., & Zhao, J. (2021). Personality profiles based on the FFM: A systematic review with a person-centered approach. *Personality and Individual Differences*, *180*, 110996. https://doi.org/10.1016/j.paid.2021.110996

Disclaimer. This epilogue draws inspiration from a Dutch publication:
Feijs, H. & Koster, N. (2022). Don't Look Up!: De mentale klimaatcrisis en de rol van de GGZ (The climate crisis in mental health and the role of mental health care institutions). *De Psycholoog, September issue,* 48-52.

Epilogue
Personality development: Shared human and unique individual responsibilities?

In the prologue of this dissertation I introduced a 'young couple in love', Brody and Georgia and 'a hopeful child', Emma. The chapters in this dissertation relate to commonalities and particularities in their personality development. They describe how their personality traits, characteristic adaptations and narrative identity in the context of their family environment may have shaped their personalities. Additionally and importantly, Brody, Georgia and Emma have another factor in common: their personality development takes place in the 21st century. A historical time in which 'development' is a word that is often used, not only to refer to a naturally occurring phenomenon, but also to intentional growth, self-actualization, and achievement, elements that characterize today's 'achievement generation' (e.g., Krogh & Madsen, 2023). Given the, in this dissertation considered, importance of *narratives* and the *environment* for personality development, the goal of this epilogue is to reflect on these factors in contemporary society. After all, that is the broader environment in which the developmental pathways of youth like Brody, Georgia and Emma are situated. In the past years, working as a scientist practitioner with youth, I increasingly gained the impression that this particular context seems to influence young individuals. This impression inspired *and* urged me to reflect on this contextualization of pathways of personality development in our Western individualistic and digital society. This is crucially important to understand the vulnerabilities and potentialities of youth.

Individuals are not the 'sole authors of their 'own' life stories', culture and society play a crucial role in shaping them (McAdams & Guo, 2017, p. 185). Culturally shared stories, or dominant master narratives, provide a framework for being 'a good member' of society (McLean & Syed, 2015). As long as one adheres to this normative master narrative, life in general may be relatively 'easy'. This is for instance illustrated by Georgia's development, who successfully finished primary and high school, developed her talents, found a group of friends with similar interests and picked a career path. However, deviation from this master narrative generally causes significant life challenges and distress (Hihara et al., 2018; McLean et al., 2018). Brody and Emma's stories illustrate these deviating developmental pathways. Their context and mental health problems complicated their school careers and development. They were bullied and experienced severe difficulties in friendships and in figuring out what they may be talented at.

These examples shed light not only on individual stories of personality development and functioning, but also on contemporary Western society's 'master narrative'. This narrative can be characterized by promotion of highly agentic processes of self-discovery, achievement and mastery of (digital and social) complex environments (Singer, 2020; Syed & McLean, 2022). Adhering to this master narrative seems to become increasingly complicated. The skills to ensure adaptive functioning in such

contemporary environments, particularly for youth, require high levels of autonomy, continuous integration of multiple-source information and managing complexity (e.g., Seemiller & Grace, 2018; van Laar et al., 2020). Moreover, managing complexity includes managing uncertainty. Issues like global warming, the COVID-19 pandemic, the Ukrainian war, an inaccessible housing market and a mental health care crisis influence the perspectives of youth concerning themselves, their life, their (mental) health and their future (e.g., Office of the Surgeon General, 2021).

Across nations and cities, youth like Georgia, Brody and Emma, are speaking up. As the 21st century master narrative seems to stress that adaptive development and functioning is an individual achievement and responsibility more than ever, youth draw attention to the required societal conditions for such a development. They emphasize both their vulnerability and concern about growing up in the current complex and uncertain individualistic times (e.g., JongerenTop010, 2020; JongerenTop NB, 2021; JongerenTop NHN, 2022). These vulnerabilities, such as loneliness and a high perceived pressure to achieve among youth, and the current societal challenges to support young individuals in their development are described in detail in recent advisory reports (e.g., Kleinjan et al., 2021). They have also prompted the European Union to mark 2022 as the 'Year of Youth' (EYY, 2022). Such reports and activities emphasize our shared human collective responsibility to create a supportive environment that promotes adaptive personality development and functioning for *all* youth. It additionally illustrates the rigidity of the current master narrative in this 'achievement generation' and the need to be inclusive of deviating stories and developmental pathways (McLean et al., 2018).

"It has been said that astronomy is a humbling and character-building experience. There is perhaps no better demonstration of the folly of human conceits than this distant image of our tiny world. To me, it underscores our responsibility to deal more kindly with one another, and to preserve and cherish the pale blue dot, the only home we've ever known." - Carl Sagan, Pale Blue Dot, 1994

With these words fostering humbleness, kindness and respect, Carl Sagan finished his speech reflecting on the picture of Voyager 1. My journey into what is unknown about the personality development of vulnerable youth, considered in the context of today's Western society, leaves me with a similar reflection. It is quite a humbling realization that every human being throughout history displays both shared and unique elements in their personality. To me, it emphasizes our connectedness to each other, as well as our individual potential. It underscores our responsibility to deal more understanding with one another and, importantly, to protect and cherish our (vulnerable) youth and encourage, as part of our collective society, their development into unique individual selves.

REFERENCES

European Year of Youth (2022). https://youth.europa.eu/year-of-youth

Hihara, S., Sugimura, K., & Syed, M. (2018). Forming a Negative Identity in Contemporary Society: Shedding Light on the Most Problematic Identity Resolution. *Identity*, *18*(4), 325–333. https://doi.org/10.1080/15283488.2018.1524329

JongerenTop010, 2020. De Adviezen. https://lokaal.org/wp-content/uploads/2021/03/JT010-De-adviezen_klein.pdf

JongerenTop NB, 2021.Terugblik Brabantse Jongerentop. https://www.brabant.nl/subsites/jongin-brabant/actueel/nieuws/2021/terugblik-brabantse-jongerentop

JongerenTop NHN, 2022. https://www.swvnoord-kennemerland.nl/documents/13891

Krogh, S. C., & Madsen, O. J. (2023). Dissecting the achievement generation: How different groups of early adolescents experience and navigate contemporary achievement demands. *Journal of Youth Studies*, 1–17. https://doi.org/10.1080/13676261.2022.2162812

McLean, K. C., Lilgendahl, J. P., Fordham, C., Alpert, E., Marsden, E., Szymanowski, K., & McAdams, D. P. (2018). Identity development in cultural context: The role of deviating from master narratives. *Journal of Personality*, *86*(4), 631–651. https://doi.org/10.1111/jopy.12341

McLean, K. C., & Syed, M. (2015). Personal, Master, and Alternative Narratives: An Integrative Framework for Understanding Identity Development in Context. *Human Development*, *58*(6), 318–349. https://doi.org/10.1159/000445817

Office of the Surgeon General (OSG). (2021). *Protecting Youth Mental Health: The U.S. Surgeon General's Advisory*. US Department of Health and Human Services. http://www.ncbi.nlm.nih.gov/books/NBK575984/

Seemiller, C., & Grace, M. (2018). *Generation Z: A Century in the Making* (1st ed.). Routledge. https://doi.org/10.4324/9780429442476

Singer, J. A. (2020). Narrative Identity in a Digital Age: What are the Human Risks? *Psychological Inquiry*, *31*(3), 224–228. https://doi.org/10.1080/1047840X.2020.1820217

Syed, M., & McLean, K. C. (2022). Who gets to live the good life? Master Narratives, identity, and well-being within a marginalizing society. *Journal of Research in Personality*, *100*, 104285. https://doi.org/10.1016/j.jrp.2022.104285

Van Laar, E., van Deursen, A. J. A. M., van Dijk, J. A. G. M., & de Haan, J. (2020). Determinants of 21st-Century Skills and 21st-Century Digital Skills for Workers: A Systematic Literature Review. *SAGE Open*, *10*(1), 215824401990017. https://doi.org/10.1177/2158244019900176

Appendices

NEDERLANDSE SAMENVATTING (SUMMARY IN DUTCH)

'Wat maakt ons, ons?' Deze en andere vragen over persoonlijkheid worden al eeuwenlang gesteld. Door de jaren heen zijn er verschillende opvattingen geweest over wat persoonlijkheid is en hoe mensen het best kunnen worden begrepen en beschreven gedurende de levensloop, bijvoorbeeld gecategoriseerd op basis van kenmerken of als unieke en complexe dynamische systemen. Gordon Allport (1961), de grondlegger van de persoonlijkheidspsychologie, benadrukte het belang van het hebben van aandacht voor zowel gemeenschappelijkheden die gelden voor groepen mensen, als unieke eigenschappen die specifiek zijn voor een individu.

Tot op heden zijn persoonlijkheidsstoornissen voornamelijk begrepen en beschreven vanuit het perspectief van gemeenschappelijkheden: De symptomen die mensen bij deze stoornissen vertonen worden gegroepeerd in categorieën en gelabeld als bijvoorbeeld een narcistische, borderline of vermijdende persoonlijkheidsstoornis. Jongeren die een dergelijk label krijgen ervaren dit vaak als niet prettig en stigmatiserend. Het kan de indruk wekken dat wie jij nu bent en bent geweest 'gestoord' is (Widiger & Mullins-Sweatt, 2009, p.203). Clinici geven dan ook aan huiverig te zijn om jongeren met een persoonlijkheidsstoornis te diagnosticeren (Laurenssen et al., 2013). Dit is tegelijkertijd problematisch, want persoonlijkheidspathologie kan verstrekkende en negatieve gevolgen hebben als het niet op tijd wordt onderkend. Om die reden is het juist belangrijk dat clinici wèl aandacht hebben voor de persoonlijkheid en (een eventuele maladaptieve) persoonlijkheidsontwikkeling van jongeren, zodat vroeg-detectie en een daaropvolgende vroeg-interventie de prognose kan verbeteren. Het nemen van een ontwikkelingsgericht perspectief, waarin zowel gemeenschappelijkheden als ook unieke eigenschappen een plaats krijgen, kan bijdragen aan een genuanceerd en niet-stigmatiserend beeld van persoonlijkheidspathologie bij jongeren.

Persoonlijkheidsontwikkeling in kwetsbare jongeren

In dit proefschrift wordt er stilgestaan bij [persoonlijkheids-] [ontwikkeling] in [kwetsbare] [jongeren]. Deze vier termen zijn in het verleden veelal de focus geweest van verschillende onderzoeksvelden, hetgeen integratie ingewikkeld maar ook nodig en zinvol maakt.

Persoonlijkheid is vaak gedefinieerd als een relatief stabiele manier van gedragen, denken en voelen, uitgedrukt in dimensies waarop mensen hoger of lager kunnen scoren. Een voorbeeld hiervan is het Big Five model (Neuroticisme, Vriendelijkheid, Extraversie, Consciëntieusheid, Openheid; McCrea & Costa, 1997). Onderzoek heeft aangetoond dat alle mensen kunnen worden beschreven aan de hand van deze vijf eigenschappen, maar elk mens heeft ook een unieke samenstelling van deze eigenschappen. Onlangs

is gesuggereerd (DeYoung et al., 2016; Widiger et al., 2012) dat de extremen op deze vijf dimensies kunnen worden gezien als maladaptieve extremen; extreem introvert zijn kan bijvoorbeeld worden beschreven als onthecht zijn. Dit idee sluit aan bij een alternatieve en meer realistische conceptualisatie van persoonlijkheidspathologie; niet meer enkel als categorieën van gemeenschappelijke symptomen, maar als gemeenschappelijke dimensies van enerzijds persoonlijkheidstrekken en anderzijds functioneren waar individuen een unieke plaats op innemen. Dit nieuwe model is beschreven in de DSM-5 sectie III als het Alternatieve Model van Persoonlijkheidsstoornissen (AMPD; APA, 2013). Het voorstel voor een alternatief model is tevens een poging om de vele beperkingen van het categoriale model op te lossen (Koster et al., 2020). Er worden in de literatuur meerdere alternatieve modellen aangedragen, waaronder ook een vernieuwde conceptualisatie van 'interpersoonlijke stoornissen' in plaats van 'persoonlijkheidsstoornissen' (o.a. Wright et al., 2022). Echter, deze alternatieve modellen beschrijven wel hoe persoonlijkheidsstoornissen eruit zien, maar niet hoe persoonlijkheidsstoornissen ontstaan.

Als persoonlijkheid staat voor 'wie wij zijn', dan geeft de persoonlijkheidsontwikkeling een beeld van 'hoe we worden, wie we zijn' (McAdams et al., 2019). Ieder mens doorloopt een persoonlijkheidsontwikkeling, van geboorte tot volwassenheid. Deze ontwikkeling wordt gekenmerkt door een voortdurende interactie tussen eigenschappen van het individu en van diens omgeving. De ontwikkelingsfase waarin jongeren tussen de 12 en 23 jaar zich bevinden is een cruciale periode waarin het vormen van een eigen identiteit en van intieme relaties met anderen naast de directe familie centraal staan als ontwikkelingstaken (Erikson, 1994; Maree, 2021). Toch blijven ouders ook zeer belangrijk in deze fase, zij kunnen hun kind liefdevol ondersteunen bij het navigeren van uitdagingen die horen bij het ontdekken van een autonoom volwassen leven (o.a. Koepke & Denissen, 2012). Helaas verloopt de persoonlijkheidsontwikkeling niet bij alle jongeren zonder problemen. Veel verschillende individuele of contextuele factoren kunnen hier een rol in spelen, zoals persoonlijkheidstrekken, eerdere psychopathologie, de gezinscontext, het opvoedingsklimaat of meegemaakte traumatische gebeurtenissen (De Clercq et al., 2008; Joyce et al., 2003; Mervielde et al., 2005; Widiger et al., 2009; Winsper et al., 2012). Interacties tussen deze problematische individuele en contextuele factoren kunnen leiden tot het niet adequaat kunnen voltooien van ontwikkelingstaken, hetgeen een maladaptieve persoonlijkheidsontwikkeling kenmerkt. Een dergelijke maladaptieve persoonlijkheidsontwikkeling kan vervolgens bijdragen aan het ontstaan van persoonlijkheidspathologie (MacIntosh et al., 2015; Widom et al., 2009).

Hoe hun persoonlijkheidsontwikkeling jongeren kwetsbaar maakt voor het ontwikkelen van persoonlijkheidspathologie, met inachtneming van zowel gemeenschap-

pelijkheden als unieke eigenschappen, kan worden begrepen middels een integratief model beschreven door Dan McAdams (2013). Dit model conceptualiseert de persoonlijkheid als bestaande uit drie lagen: 1) dispositionele trekken, 2) karakteristieke adaptaties, en 3) de narratieve identiteit. Deze lagen ontwikkelen sequentieel, maar interacteren voortdurend en krijgen een meer prominente rol in de persoonlijkheidsontwikkeling naar gelang deze vordert (McAdams & Pals, 2006). De dimensies van persoonlijkheidstrekken waarop iemand gedurende de ontwikkeling een relatief stabiele plaats inneemt, zijn vanaf de geboorte te onderscheiden en worden ook wel aangeduid als temperament. Daarna ontwikkelt zich de karakteristieke manier waarop iemand interacteert met diens omgeving, bijvoorbeeld in de vorm van hechting, interpersoonlijk functioneren en doelen of waarden. Tenslotte ontwikkelt zich in de adolescentie de narratieve identiteit, het unieke persoonlijke levensverhaal dat structuur en betekenis verleent aan het verleden, het heden en de toekomst. Dit raamwerk biedt ook een integratief perspectief op de maladaptieve persoonlijkheidsontwikkeling die zou kunnen worden gekenmerkt door interacties tussen een extreme positie op de dimensies van persoonlijkheidstrekken, sociale maladaptaties en een problematisch levensverhaal. Voor jongeren is de inclusie van de narratieve identiteit met name relevant omdat 1) de ontwikkeling van de narratieve identiteit als kerntaak centraal staat in deze fase (McAdams & McLean, 2013); 2) problemen in de (narratieve) identiteit inherent zijn aan persoonlijkheidspathologie (Jensen et al., 2020), 3) persoonlijkheidspathologie vaak voor het eerst tot uiting komt bij jongeren (Sharp & Wall, 2018; Solmi et al., 2022), en 4) begrip van de simultane ontwikkeling van deze constructen kan bijdragen aan inzicht in hoe persoonlijkheidspathologie ontstaat en op een vroeg moment in de ontwikkeling onderkent of behandeld kan worden (Shiner et al., 2021).

In dit proefschrift wordt het integratieve model van persoonlijkheidsontwikkeling (McAdams, 2013) als uitgangspunt genomen om inzicht te krijgen in de maladaptieve persoonlijkheidsontwikkeling en het ontstaan van persoonlijkheidspathologie bij kwetsbare jongeren. In het eerste deel wordt er gefocust op de rol van dimensies van persoonlijkheidstrekken en karakteristieke adaptaties in de omgevingscontext, en hun interacties. Het tweede deel bouwt voort op het eerste en focust aanvullend op de narratieve identiteit in interactie met de andere lagen en de omgeving. In elk hoofdstuk is er aandacht voor zowel gemeenschappelijkheden van groepen mensen als ook unieke eigenschappen.

Deel I: Gedeelde en unieke disposities, karakteristieke adaptaties en contexten

Na een korte inleiding, werd in de volgende twee hoofdstukken gefocust op de eerste laag van het model, de dispositionele trekken. In hoofdstuk twee stond een

methodische vraag centraal, namelijk of het mogelijk is om de vijf maladaptieve persoonlijkheidstrekken (negatieve affectiviteit, onthechtheid, antagonisme, disinhibitie en psychoticisme) betrouwbaar te meten in jongeren met behulp van een verkorte vragenlijst. De originele PID-5 vragenlijst heeft 220 items, de verkorte versie slechts 100 items. In deze studie werd gevonden dat deze verkorte vragenlijst zowel in een niet-klinische als een klinische groep jongeren de vijf maladaptieve persoonlijkheidstrekken betrouwbaar en valide kan meten. In hoofdstuk drie brachten wij het verband tussen de Big Five persoonlijkheidstrekken en borderline persoonlijkheidspathologie in kaart bij een gemengde groep jongeren (klinisch en niet-klinisch). Het bleek dat deze constructen sterk met elkaar samenhangen, hetgeen de vraag oproept of er daadwerkelijk onderscheid gemaakt kan worden tussen persoonlijkheidstrekken en -pathologie als een categorische stoornis. Met name de persoonlijkheidstrekken neuroticisme, vriendelijkheid en consciëntieusheid hingen sterk met symptomen van een borderline persoonlijkheidsstoornis samen, dit is eerder aangeduid als een kwetsbaarheidsprofiel.

Vervolgens werd in hoofdstuk 4 en 5 de laag van de karakteristieke adaptaties geïntegreerd. In hoofdstuk vier brachten wij met een groeimodel analyse het verloop van algemene lijdenslast door psychische klachten over een periode van anderhalf jaar in kaart bij een klinische groep jongeren. Er bleken drie verschillende trajecten onderscheidden te kunnen worden: 1) hoge lijdenslast die snel afneemt, 2) hoge lijdenslast die hoog blijft en 3) een relatief lage lijdenslast die langzaam afneemt. Vervolgens bekeken wij of de vijf maladaptieve persoonlijkheidstrekken en de ervaren steun of conflict in de relatie met ouders voorspellers waren voor deze trajecten. Negatieve affectiviteit en onthechtheid bleken voorspellers van de eerste twee trajecten, ervaren steun of conflict met ouders bleek echter niet voorspellend. In hoofdstuk vijf onderzochten wij met een meer integratieve analyse, een cross-lagged panel model, de (voorspellende) relaties tussen persoonlijkheidstrekken, karakteristieke adaptaties en de omgeving in een niet-klinische groep. Wij keken naar het kwetsbaarheidsprofiel als dispositie, sociale problemen als adaptatie en de kwaliteit van de relatie met ouders als de omgeving. Deze constructen bleken op een complexe manier met elkaar samen te hangen en te interacteren: er werd gevonden dat hoge scores op de dimensies negatieve affectiviteit en onvriendelijkheid een negatief effect hebben op de relatie met ouders. Een goede relatie met ouders daarentegen bleek een positief effect te hebben op vermindering van sociale problemen en ook op consciëntieusheid. Een opmerkelijke bevinding was dat sociale problemen ertoe lijken te leiden dat de relatie met ouders als beter wordt ervaren, mogelijk omdat ouders dan meer hun best gaan doen om hun kind te steunen. Ook werden er tegen verwachting in geen relaties gevonden tussen persoonlijkheidstrekken en sociale problemen. Deze complexe samenhang wijst erop dat, hoewel er enkele gemeenschappelijkheden te ontdekken

zijn die voor veel jongeren lijken te gelden, de persoonlijkheidsontwikkeling toch vooral wordt gevormd door het voor elk individu unieke samenspel tussen persoon en omgevingskenmerken.

Deel 2: gedeelde en unieke kenmerken van de narratieve identiteit

Het tweede deel van dit proefschrift bevat studies waarin de narratieve identiteit centraal staat. In hoofdstuk zes beschreven wij hoe wij met het onderzoeksproject APOLO, wat staat voor Adolescenten en hun Persoonlijkheids-Ontwikkeling: een Longitudinaal Onderzoek, data verzamelen bij kwetsbare jongeren. Er wordt zowel kwantitatieve als kwalitatieve data verzameld van maladaptieve persoonlijkheidstrekken, karakteristieke sociale mal-adaptaties, de narratieve identiteit en algemeen functioneren met zelf- en informantenrapportages bij twee ggz-instellingen: Reinier van Arkel en Vincent van Gogh. De narratieve identiteit specifiek wordt in dit project in kaart gebracht met een semi-gestructureerd interview over een keerpunt in iemands leven.

Vervolgens stond in hoofdstuk zeven en acht de samenhang van de narratieve identiteit met de verschillende lagen van de persoonlijkheid centraal. In hoofdstuk zeven keken wij naar verbanden tussen zes in de narratieven gecodeerde kenmerken van de narratieve identiteit (valentie, thema, coherentie, zelf-gebeurtenis connecties, agency en verbinding) en drie manieren van het meten van persoonlijkheidsproblematiek (het alternatieve model, persoonlijkheidstrek-profielen en stoornis categorieën). Jongeren die verhalen vertellen met veel maladaptieve eigenschappen bleken gekenmerkt te worden door hoge scores op negatieve affectiviteit en interpersoonlijke problemen. Daarnaast bleek een negatieve betekenisverlening door het maken van negatieve connecties tussen de zelf en een gebeurtenis in het verleden samen te hangen met het meest brede scala aan maladaptieve persoonlijkheidstrekken en problematisch zelf- en interpersoonlijk functioneren. Dit lijkt erop te wijzen dat negatieve betekenisverlening een algemeen kenmerk is van persoonlijkheidsproblematiek. In hoofdstuk acht focusten we vooral op de kenmerken van agency en verbinding in de narratieven van kwetsbare jongeren en de samenhang met interpersoonlijke problemen. We vonden dat jongeren die verhalen vertellen die worden gekenmerkt door een bepaalde mate van ervaren controle en sturing (agency) en verbinding met belangrijke anderen, minder problemen met koud, teruggetrokken en aanpassend interpersoonlijk gedrag rapporteren. Het bleek dat, naast de cross-sectionele verwachte samenhang tussen deze constructen, er geen longitudinale samenhang kon worden aangetoond.

In hoofdstuk twee tot en met acht werd er steeds onderzoek gedaan in groepen (kwetsbare) jongeren. In het laatste hoofdstuk, hoofdstuk negen, namen wij een ander perspectief, namelijk dat van het individu. Dit hoofdstuk beschrijft hoe het integratieve

model van persoonlijkheidsontwikkeling kan dienen om een uniek individu te leren kennen in de context van persoonlijkheidsdiagnostiek. Er wordt eerst beschreven op welke manier dit perspectief aansluit bij de meest recente ontwikkelingen op het gebied van diagnostiek naar persoonlijkheid. Daarna wordt aan de hand van casus Emma een voorbeeld gegeven van hoe dit in de klinische praktijk kan worden toegepast. Hierin wordt specifiek ingegaan op het belang van persoonlijke, genuanceerde en integratieve diagnostiek in de context van het ontwikkelen van de narratieve identiteit, hetgeen de meest belangrijke ontwikkelingstaak is voor jongeren.

DISCUSSIE

Disposities, adaptaties en de narratieve identiteit van jongeren

Tot op heden werd het door Dan McAdams (2013) beschreven integratieve model van persoonlijkheidsontwikkeling voornamelijk gebruikt om de normatieve persoonlijkheidsontwikkeling in kaart te brengen. Dit proefschrift heeft laten zien dat dit drie-lagige model ook goed gebruikt kan worden om de maladaptieve persoonlijkheidsontwikkeling, en daarmee het ontstaan van persoonlijkheidsproblematiek, te begrijpen.

In dit proefschrift zijn ten eerste de adaptieve dan wel maladaptieve dimensies van de dispositionele persoonlijkheidstrekken van jongeren veelvuldig onderzocht, namelijk in de hoofdstukken 2, 3, 4, 5, en 7. De studies in hoofdstuk 2 en 3 wezen erop dat deze dimensies zowel betrouwbaar te meten zijn in jongeren, als ook dat deze – net als in volwassenen – daadwerkelijk lijken te variëren van normatief tot pathologisch. Dit dimensionele perspectief geeft daarmee dus geen aanleiding om meer terughoudend te zijn met het overwegen van persoonlijkheidspathologie bij jongeren dan bij volwassenen. Met name de persoonlijkheidstrek neuroticisme, ofwel negatieve affectiviteit, leek in meerderde studies sterk samen te hangen met disfunctioneren en pathologie. Dit is al wel vaker beschreven en heeft geleid tot de suggestie dat deze persoonlijkheidstrek een algemene kwetsbaarheid vormt voor psychopathologie. De combinatie van hoge scores op neuroticisme en lage scores op vriendelijkheid en consciëntieusheid lijkt een algemeen kwetsbaarheidsprofiel voor persoonlijkheidspathologie te vormen en werd om die reden ook gebruikt in hoofdstuk 5.

Vervolgens werd in de hoofdstukken 3, 5 en 7 aangetoond dat de dispositionele persoonlijkheidstrekken en karakteristieke sociale adaptaties van jongeren met elkaar samenhangen. De resultaten lijken erop te wijzen dat algemene dispositionele kwetsbaarheden van jongeren met name op karakteristieke manieren tot uiting komen in maladaptief interpersoonlijk functioneren. Tegen de verwachting in werd

dit verband echter niet over de tijd heen gevonden (hoofdstuk 5) en waren de relaties met maladaptief zelf-functioneren zeer wisselend. Vervolgonderzoek zou hier meer inzicht in kunnen bieden. In hoofdstuk 8 bleek dat die sociale problemen bij de groep jongeren die gevolgd wordt in de dataverzameling van APOLO (vrijwel dezelfde groep als die ook in hoofdstuk 7 gebruikt werd) met name gaan over zelfopofferend en extreem accomoderend sociaal gedrag. In de toekomst zou het interessant zijn om de relaties tussen persoonlijkheidstrekken en specifieke interpersoonlijke problemen in nog meer detail te onderzoeken, iets dat in dit proefschrift niet werd gedaan. Het in kaart brengen van deze karakteristieke disfunctionele interpersoonlijke gedragingen bovenop algemene dispositionele kwetsbaarheden kan namelijk een beter inzicht geven in specifieke 'probleem-profielen' (Kotov et al., 2010). De twee fundamentele motieven agency (vooruit bewegen) en communion (verbinding maken) kunnen hierin mogelijk een leidraad vormen, deze kerndimensies kunnen zowel in persoonlijkheidstrekken als in interpersoonlijke adaptaties worden onderscheiden (Entringer et al., 2022).

In het tweede deel van dit proefschrift stond de narratieve identiteit centraal, die in kaart werd gebracht aan de hand van verhalen van jongeren over keerpuntmomenten in hun leven? In hoofdstuk 7 en 8 toonden wij aan dat de maladaptieve elementen die de verhalen van kwetsbare jongeren kenmerken (zoals een negatieve valentie, negatieve zelf-gebeurtenis connecties en lage scores op agency en verbinding) vaak met elkaar samenhangen. Dat is niet verwonderlijk, het betreft ten slotte één verhaal van één individu. Bovendien werd in deze hoofdstukken aangetoond dat dispositionele persoonlijkheidstrekken – met name negatieve affectiviteit (hoofdstuk 7)– en interpersoonlijk disfunctioneren (hoofdstuk 7 en 8) samenhangen met deze persoonlijke verhalen. Dit wijst op de interactie tussen de drie lagen van het model en de functie van de narratieve identiteit in het verlenen van betekenis aan (sociale) ervaringen. Deze betekenisverlening lijkt te worden 'gekleurd' door het profiel van algemene persoonlijkheidstrekken. In beide hoofdstukken leken de resultaten te wijzen op een profiel van persoonlijkheid dat gekenmerkt kan worden door vermijding of passiviteit.

Klinische implicaties voor jongeren als unieke individuen

In hoofdstuk 9 lieten wij aan de hand van de casus van Emma zien dat dit integratieve perspectief op persoonlijkheidsontwikkeling naast het begrijpen van jongeren in het algemeen, ook zinvol lijkt voor gebruik in de klinische praktijk. De levensloop en het functioneren van individuen kan worden onderzocht en beschreven aan de hand van de drie lagen, hetgeen een genuanceerd, dimensioneel en ontwikkelingsgericht beeld geeft dat geheel aansluit bij recente alternatieve conceptualisaties van persoonlijkheidsproblematiek. Als leidraad voor een dergelijke diagnostische beschrijving kunnen dispositionele trekken in kaart worden gebracht als een indicatie van algemene kwetsbaarheid voor het ontwikkelen van psychopathologie of persoonlijkheidspathologie. Aandacht

voor de ontwikkelingscontext met eventuele heftige levensgebeurtenissen of stressvolle sociale situaties kan vervolgens inzicht geven in hoe deze algemene kwetsbaarheid zich bij een jongere uit in kenmerkende maladaptieve sociale dynamieken en cognities. Bij diagnostisch onderzoek met jongeren is het van belang om ervan bewust te zijn dat zij vanwege hun ontwikkelingsfase extra gevoelig zijn voor sociale feedback, welke wordt gebruikt om betekenis te verlenen aan het zelf en aan anderen en om het persoonlijk narratief te construeren (Pasupathi, 2014). De focus op de narratieve identiteit in deze beeldvorming van de persoonlijkheid is daarom met name passend voor jongeren (Shiner et al., 2021) en maakt tevens dat de invloed van de diagnosticus, die samen met de jongere een persoonsbeschrijving construeert, heel groot kan zijn (Finn & Martin, 2013). Dit model biedt naast een genuanceerde beschrijving van iemands kwetsbaarheden bovendien de mogelijkheid om iemands krachten in de ontwikkeling en ontwikkelingscontext te beschrijven.

Reflectie op limitaties en een blik op de toekomst

De studies in dit proefschrift laten zien dat het integratieve model van persoonlijkheidsontwikkeling een heel passend raamwerk biedt om het ontstaan van persoonlijkheidspathologie te begrijpen. Echter, het is nodig om enkele beperkingen van het model en het bereik van de beschreven studies, die in de toekomst nader onderzoek verdienen, aan te stippen. Ten eerste wordt er met name gefocust op de ontwikkeling van het individu, waarbij de – uit wetenschappelijk onderzoek bekende – rol van de context niet heel uitgebreid in kaart is gebracht. In hoofdstuk 4 en 5, waarin de relatie met ouders wel is meegenomen geven de resultaten een onduidelijk beeld, variërend van helemaal geen invloed van ouders (hoofdstuk 4) tot de relatie met ouders als een van de belangrijkste drijfveren van persoonlijkheidsontwikkeling (hoofdstuk 5). Voor jongeren speelt mogelijk ook de relatie met leeftijdsgenoten een heel belangrijke rol (Skabeikyte-Norkiene et al., 2022), een die in deze studies niet is onderzocht. Bovendien is het noodzakelijk om bij het onderzoeken van een maladaptieve persoonlijkheidsontwikkeling het ervaren van trauma dan wel stressvolle levensgebeurtenissen in kaart te brengen, hetgeen in de huidige studies deels indirect werd gedaan door het navragen van keerpuntmomenten maar meer aandacht verdiend.

Ten tweede wordt er in het model een scherp onderscheid gemaakt tussen dispositionele persoonlijkheidstrekken en karakteristieke adaptaties, hetgeen we in de studies hebben getracht over te nemen. Dit onderscheid stoelt op het idee van 'traits and states' of 'core and surface'. Echter, in eerder onderzoek (o.a. Henry & Mõttus, 2020) en in meerdere studies en met name in hoofdstuk 5 van dit proefschrift bleek dat dit onderscheid niet altijd goed te maken is. Het zou zelfs kunnen dat disposities veranderen naar adaptaties en andersom (Asendorpf & Motti–Stefanidi, 2018), mogelijk afhankelijk van ontwikkelingsfasen (Klimstra & Denissen, 2017). In

toekomstige studies is het om deze reden extra belangrijk om dit onderscheid expliciet te onderzoeken.

Ten derde is het nodig om aan te stippen dat er in de studies in dit proefschrift, met uitzondering van de casusbeschrijving in hoofdstuk 9, enkel gebruik is gemaakt van zelf-rapportage. Dit is enerzijds passend, omdat we in de studies – en met name die over de narratieve identiteit – ook subjectieve beleving of betekenisverlening willen onderzoeken. Anderzijds kan deze methode ook voor een vertekend beeld van de waarheid zorgen, zeker omdat het met name bij jongeren altijd wordt aangeraden om ook informatie van andere informanten te includeren (Hopwood & Bornstein, 2014; Tackett et al., 2013). Discrepanties in de informatie vanuit zelf- en informantenrapportages kan bijvoorbeeld inzicht geven in het functioneren van jongeren in hun unieke context.

Conclusie en hoe het verhaal verder gaat...

'Als elk individu kan worden gezien als een uniek kunstwerk, dan biedt de wetenschap een blik op algemeenheden te midden van al de diversiteit (vertaling van McAdams, 2015, p.2).

Deze quote beschrijft twee globale conclusies die getrokken kunnen worden uit dit proefschrift. Om te beginnen, ten aanzien van de algemeenheden lijken de studies erop te wijzen dat alle kwetsbare jongeren op elkaar lijken: ze kunnen worden beschreven langs dezelfde dimensies van persoonlijkheidstrekken, adaptaties en kenmerken van de narratieve identiteit. Echter, ten aanzien van alle, meer dan tweeduizend, individuen die hun data beschikbaar hebben gesteld ten dienste van de studies in dit proefschrift, kan er worden geconcludeerd dat zij elk uniek zijn. Ieder heeft een genuanceerd profiel van persoonlijkheidstrekken, met unieke adaptaties aan situationele (sociale) contexten en uiteraard een heel eigen persoonlijk narratief. Gebaseerd op deze twee conclusies lijkt het in de toekomst van groot belang dat bij het onderzoeken, begrijpen en beschrijven van de persoonlijkheidsontwikkeling van kwetsbare jongeren de perspectieven van gemeenschappelijkheden en van unieke eigenschappen worden geïntegreerd.

REFERENTIES

Allport, G. W. (1961). Pattern and growth in personality. Holt, Reinhart & Winston.

American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed.. Washington, DC: Author, 2013.

American Psychiatric Association (2013). Diagnostic and Statistical Manual of MentalDisorders, Fifth Edition. Arlington, VA.

Asendorpf, J. B., & Motti–Stefanidi, F. (2018). Mediated Disposition–Environment Transactions: The Dae Model. European Journal of Personality, 32(3), 167–185. https://doi.org/10.1002/per.2118

De Clercq, B., Van Leeuwen, K., De Fruyt, F., Van Hiel, A., & Mervielde, I. (2008). Maladaptive Personality Traits and Psychopathology in Childhood and Adolescence: The Moderating Effect of Parenting. Journal of Personality, 76(2), 357–383. https://doi.org/10.1111/j.1467-6494.2007.00489.x

DeYoung, C. G., Carey, B. E., Krueger, R. F., & Ross, S. R. (2016). Ten aspects of the Big Five in the Personality Inventory for DSM–5. Personality Disorders: Theory, Research, and Treatment, 7(2), 113–123. https://doi.org/10.1037/per0000170

Entringer, T. M., Gebauer, J. E., & Paulhus, D. L. (2022). Extracting Agency and Communion From the Big Five: A Four-Way Competition. Assessment, 29(6), 1216–1235. https://doi.org/10.1177/10731911211003978

Erikson, E. H. (1994). Identity: Youth and crisis (No. 7). New York, NY: WW Norton.

Finn, S. E., & Martin, H. (2013). Therapeutic assessment: Using psychological testing as brief therapy. In K. F. Geisinger, B. A. Bracken, J. F. Carlson, J.-I. C. Hansen, N. R. Kuncel, S. P. Reise, & M. C. Rodriguez (Eds.), APA handbook of testing and assessment in psychology, Vol. 2: Testing and assessment in clinical and counseling psychology. (pp. 453–465). American Psychological Association. https://doi.org/10.1037/14048-026

Henry, S., & Mõttus, R. (2020). Traits and Adaptations: A Theoretical Examination and New Empirical Evidence. European Journal of Personality, 34(3), 265–284. https://doi.org/10.1002/per.2248

Hopwood, C. J., & Bornstein, R. F. (Eds.). (2014). Multimethod clinical assessment. Guilford Publications.

Jensen, R. A. A., Thomsen, D. K., Bliksted, V. F., & Ladegaard, N. (2020). Narrative Identity in Psychopathology: A Negative Past and a Bright but Foreshortened Future. Psychiatry Research, 290, 113103. https://doi.org/10.1016/j.psychres.2020.113103

Joyce, P. R., Mckenzie, J. M., Luty, S. E., Mulder, R. T., Carter, J. D., Sullivan, P. F., & Robert Cloninger, C. (2003). Temperament, childhood environment and psychopathology as risk factors for avoidant and borderline personality disorders. Australian & New Zealand Journal of Psychiatry, 37(6), 756–764. https://doi.org/10.1080/j.1440-1614.2003.01263.x

Klimstra, T. A., & Denissen, J. J. A. (2017). A theoretical framework for the associations between identity and psychopathology. Developmental Psychology, 53(11), 2052–2065. https://doi.org/10.1037/dev0000356

Koepke, S., & Denissen, J. J. A. (2012). Dynamics of identity development and separation–individuation in parent–child relationships during adolescence and emerging adulthood – A conceptual integration. Developmental Review, 32(1), 67–88. https://doi.org/10.1016/j.dr.2012.01.001

Koster, N., van der Heijden, P. T., Laceulle, O. M., & van Aken, M. A. (2020). Een vernieuwende blik op persoonlijkheidsproblematiek bij jongeren: van traditionele hokjes naar dimensioneel denken (A new view of personality problems in youth: from traditional categories to dimensional thinking). Kind en adolescent, 41, 31-49.

Kotov, R., Gamez, W., Schmidt, F., & Watson, D. (2010). Linking "big" personality traits to anxiety, depressive, and substance use disorders: A meta-analysis. Psychological Bulletin, 136(5), 768–821. https://doi.org/10.1037/a0020327

Laurenssen, E. M. P., Hutsebaut, J., Feenstra, D. J., Van Busschbach, J. J., & Luyten, P. (2013). Diagnosis of personality disorders in adolescents: A study among psychologists. Child and Adolescent Psychiatry and Mental Health, 7(1), 3. https://doi.org/10.1186/1753-2000-7-3

MacIntosh, H. B., Godbout, N., & Dubash, N. (2015). Borderline personality disorder: Disorder of trauma or personality, a review of the empirical literature. Canadian Psychology / Psychologie Canadienne, 56(2), 227–241. https://doi.org/10.1037/cap0000028

Maree, J. G. (2021). The psychosocial development theory of Erik Erikson: Critical overview. Early Child Development and Care, 191(7–8), 1107–1121. https://doi.org/10.1080/03004430.2020.1845163

McAdams, D. P. (2013). The Psychological Self as Actor, Agent, and Author. Perspectives on Psychological Science, 8(3), 272–295. https://doi.org/10.1177/1745691612464657

McAdams, D. P. (2015a). The art and science of personality development. The Guilford Press.

McAdams, D. P., & McLean, K. C. (2013). Narrative Identity. Current Directions in Psychological Science, 22(3), 233–238. https://doi.org/10.1177/0963721413475622

McAdams, D. P., & Pals, J. L. (2006). A new Big Five: Fundamental principles for an integrative science of personality. American Psychologist, 61(3), 204–217. https://doi.org/10.1037/0003-066X.61.3.204

McAdams, D. P., Shiner, R. L., & Tackett, J. L. (Eds.). (2019). Handbook of personality development. The Guilford Press.

McCrae, R. R., & Costa, P. T. (1997). Personality trait structure as a human universal. American Psychologist, 52(5), 509–516. https://doi.org/10.1037/0003-066X.52.5.509

Mervielde, I., De Clercq, B., De Fruyt, F., & Van Leeuwen, K. (2005). Temperament, Personality, and Developmental Psychopathology as Childhood Antecedents of Personality Disorders. Journal of Personality Disorders, 19(2), 171–201. https://doi.org/10.1521/pedi.19.2.171.62627

Pasupathi, M. (2014). Identity: Commentary: Identity Development: Dialogue Between Normative and Pathological Developmental Approaches. Journal of Personality Disorders, 28(1), 113–120. https://doi.org/10.1521/pedi.2014.28.1.113

Sharp, C., & Wall, K. (2018). Personality pathology grows up: Adolescence as a sensitive period. Current Opinion in Psychology, 21, 111–116. https://doi.org/10.1016/j.copsyc.2017.11.010

Shiner, R. L., Klimstra, T. A., Denissen, J. J., & See, A. Y. (2021). The development of narrative identity and the emergence of personality disorders in adolescence. Current Opinion in Psychology, 37, 49–53. https://doi.org/10.1016/j.copsyc.2020.07.024

Skabeikyte-Norkiene, G., Sharp, C., Kulesz, P. A., & Barkauskiene, R. (2022). Personality pathology in adolescence: Relationship quality with parents and peers as predictors of the level of personality functioning. Borderline Personality Disorder and Emotion Dysregulation, 9(1), 31. https://doi.org/10.1186/s40479-022-00202-z

Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Salazar de Pablo, G., Il Shin, J., Kirkbride, J. B., Jones, P., Kim, J. H., Kim, J. Y., Carvalho, A. F., Seeman, M. V., Correll, C. U., & Fusar-Poli, P. (2022). Age at onset of mental disorders worldwide: Large-scale meta-analysis of 192 epidemiological studies. Molecular Psychiatry, 27(1), 281–295. https://doi.org/10.1038/s41380-021-01161-7

Tackett, J. L., Herzhoff, K., Reardon, K. W., Smack, A. J., & Kushner, S. C. (2013). The relevance of informant discrepancies for the assessment of adolescent personality pathology. Clinical Psychology: Science and Practice, 20(4), 378–392. https://doi.org/10.1111/cpsp.12048

Widiger, T. A., De Clercq, B., & De Fruyt, F. (2009). Childhood antecedents of personality disorder: An alternative perspective. Development and Psychopathology, 21(3), 771–791. https://doi.org/10.1017/S095457940900042X

Widiger, T. A., Lynam, D. R., Miller, J. D., & Oltmanns, T. F. (2012). Measures to Assess Maladaptive Variants of the Five-Factor Model. Journal of Personality Assessment, 94(5), 450–455. https://doi.org/10.1080/00223891.2012.677887

Widiger, T. A., & Mullins-Sweatt, S. N. (2009). Five-Factor Model of Personality Disorder: A Proposal for DSM-V. Annual Review of Clinical Psychology, 5(1), 197–220. https://doi.org/10.1146/annurev.clinpsy.032408.153542

Widom, C. S., Czaja, S. J., & Paris, J. (2009). A Prospective Investigation of Borderline Personality Disorder in Abused and Neglected Children Followed Up into Adulthood. Journal of Personality Disorders, 23(5), 433–446. https://doi.org/10.1521/pedi.2009.23.5.433

Winsper, C., Zanarini, M., & Wolke, D. (2012). Prospective study of family adversity and maladaptive parenting in childhood and borderline personality disorder symptoms in a non-clinical population at 11 years. Psychological Medicine, 42(11), 2405–2420. https://doi.org/10.1017/S0033291712000542

Wright, A. G. C., Ringwald, W. R., Hopwood, C. J., & Pincus, A. L. (2022). It's time to replace the personality disorders with the interpersonal disorders. American Psychologist, 77(9), 1085–1099. https://doi.org/10.1037/amp0001087

ABOUT THE AUTHOR

Nagila Koster (1990) obtained her bachelor's degree and clinical master's degree Developmental Psychology (2013, 2016, both cum laude) and her research master's degree Development and Socialization in Childhood and Adolescence (2015) at Utrecht University. During her studies she worked as a student assistant in several departments, including developmental psychology, social psychology and pedagogical sciences.

After her studies Nagila entered the trajectory of Topklas students working at Reinier van Arkel. In a period of six and a half years she sequentially completed the 2 year postmaster degree of general practitioner in psychology (2018, GZ-opleiding, Rino Zuid) and the 4 year postmaster degree to become a clinical psychologist (2023, KP-opleiding, Rino Utrecht). During this period she alternated working in child, youth and adolescent psychiatry teams for out-patients or in clinical settings.

Parallel to these clinical post master's degrees Nagila started a PhD trajectory (2016-2023) at the department of Developmental Psychology at Utrecht University. She set up and worked as the project leader of the multi-center research project APOLO. In APOLO both qualitative and quantitative data on personality development and functioning is collected from youth in specialized mental health care centers. With her focus on and her interest in personality (development) she completed a three-month internship at the personality psychology department of UC Davis (2018), supervised by prof. dr. C. Hopwood. As a PhD student, Nagila participated in various national and international psychology conferences. She furthermore supervised bachelor and master students and started teaching in personality assessment in clinical post-master education.

With personality in the (vulnerable) developmental phase of adolescence as the core of both her clinical work and research, Nagila increasingly gained interest in optimizing both health-care and societal processes such that they optimally support youth in their development. To this end she, together with several colleagues, initiated the project Youthlab, which focusses on small-scale innovations through experiments in health care and the broader society. This project was financially supported by a grant of FNO Geestkracht in 2022.

Nagila currently works as both a clinical psychologist/psychotherapist and a researcher at Reinier van Arkel, where she continues to contribute to the development of vulnerable youth individually, the optimalization of health-care processes and exploration of personality (assessment) from a developmental and dimensional perspective.

PUBLICATIONS

Manuscripts in this dissertation

Baaijens, B., Koster, N., Van Aken, M.A.G., P., Van der Heijden, P.T., & Laceulle, O.M. (n.d.) Narrative identity characteristics and personality pathology: an exploration of associations from a dimensional and categorical perspective in a clinical sample of youth. Accepted June 16th 2023 for publication in the Journal of Personality Disorders: Theory, Research, and Treatment. *This publication is the revised manuscript of chapter 7 in this dissertation, with the title' Narrative identity and personality pathology: an exploration of associations from a dimensional and categorical perspective in a clinical sample of youth'.

Koster, N. Berghuis, H. Van Aken, M.A.G., Laceulle, O.M., & Van der Heijden, P.T. (2023). Integrating Shared and Unique approaches in Personality Assessment: A Case Formulation of Emma. Journal of Psychiatry Research: Case Reports, 2(1), 100126, https://doi.org/10.1016/j.psycr.2023.100126

Koster, N., Hopwood, C. J., Goodman, M., & Zanarini, M. C. (2019). Correlates between Five-Factor Model traits and the Revised Diagnostic Interview for Borderlines dimensions in an adolescent clinical sample. Personality and Mental Health, 13(4), 197-204. https://doi.org/10.1002/pmh.1459

Koster, N., Laceulle, O., Van der Heijden, P., De Clercq, B., & Van Aken, M. (2018). \Trajectories of change in symptom distress in a clinical group of late adolescents: The role of maladaptive personality traits and relations with parents. Personality and Mental Health, 12(3), 192-202. https://doi.org/10.1002/pmh.1416

Koster, N., Laceulle, O. M., Prinzie, P., Van der Heijden, P. T., & Van Aken, M. A. (2023). A DAE perspective on the interface between adaptive and maladaptive personality development: A conceptual replication. Development and Psychopathology, 1-14. https://doi.org/10.1017/S0954579423000330

Koster, N., Laceulle, O. M., Van der Heijden, P. T., Klimstra, T., De Clercq, B., Verbeke, L., De Caluwé & Van Aken, M. A. (2019). A psychometric evaluation of a reduced version of the PID-5 in clinical and non-clinical adolescents. European Journal of Psychological Assessment. 36 (5), 758-766. https://doi.org/10.1027/1015-5759/a000552

Koster, N., Lusin, I., van der Heijden, P. T., Laceulle, O. M., & van Aken, M. A. (2022). Understanding personality pathology in a clinical sample of youth: study protocol for the longitudinal research project 'APOLO'. BMJ open, 12(6), e054485. https://bmjopen.bmj.com/content/12/6/e054485.abstract

Other publications

De Moor, E. L., Van der Graaff, J., Koster, N., Laceulle, O. M., & Branje, S. (2022). The relation between self-event connections and personality functioning in youth with severe psychopathology. Journal of Personality, 90(5), 799-816. https://doi.org/10.1111/jopy.12697

Feijs, H. & Koster, N. (2022). Don't Look Up!: De mentale klimaatcrisis en de rol van de GGZ (The climate crisis in mental health and the role of mental health care institutions). De Psycholoog, September issue, 48-52.

Koster, N., de Maat, D. A., Schreur, M., & van Aken, M. A. (2018). How borderline personality characteristics affect adolescents' life satisfaction: The role of rejection sensitivity and social relations. European Journal of Developmental Psychology, 15(5), 594-607. https://doi.org/10.1080/17405629.2017.1321983

Koster, N., van der Heijden, P. T., Laceulle, O. M., & van Aken, M. A. (2020). Een vernieuwende blik op persoonlijkheidsproblematiek bij jongeren: van traditionele hokjes naar dimensioneel denken (A new view of personality problems in youth: from traditional categories to dimensional thinking). Kind en adolescent, 41, 31-49.

Willems-Passtoors, L. M. W., Laceulle, O. M., Koster, N., van der Heijden, P. T., & van Aken, M. A. G. (2022). Een dimensionele blik op persoonlijkheidsfunctioneren bij adolescenten: De relatie met een veilige hechtingsstijl en stressvolle levensgebeurtenissen. De Psycholoog, 57(4), 34-44. https://hdl.handle.net/2066/285594

DANKWOORD

"We hold the key to lasting happiness in our own hands. For it is not joy that makes us grateful, it is gratitude that makes us joyful' – Brené Brown

De start van het schrijven van dit dankwoord vervult mij met een gevoel van blijdschap, hetgeen bij nadere reflectie vooral een overweldigend gevoel van dankbaarheid is. Waar start men bij het in woorden gieten van zoveel dankbaarheid? Ik besloot te beginnen waar het meest logisch is, bij het begin… het begin van mijn narratief.

Er waren eens twee mooie jonge mensen die elkaar in Griekenland op vakantie ontmoetten. En enkele jaren later op vakantie in Israel, vervult van blijdschap bij het ontdekken van hun zwangerschap, besloten zij hun eerste dochter te dopen met een Hebreeuwse naam die 'blij zijn' betekent: Nagila. Lieve mama, jij gaf mij een veilige en warme thuisbasis, een talent voor creativiteit en een onbaatzuchtige liefde voor de ander mee. Je attendeerde mij er keer op keer op dat diepe blijdschap ontstaat uit dankbaarheid voor het kleine. Dankjewel daarvoor. Lieve pap, ik fluister mijn woorden van dank in de wind en vertrouw erop dat jij ze daarboven zult horen, net als hoe ik hier beneden kan voelen dat jouw liefde was, is en blijft. Lieve zusjes, Selomi en Hananja, mijn steun en toeverlaat, beste vriendinnen en trouwe metgezellen op mijn hele levenspad. Jullie zijn mij meer dierbaar dan ik ooit in woorden kan uitdrukken. Richard en Tido, als schoonbroers verrijken jullie ons gezin en ik waardeer jullie enorm.

Iedereen heeft vriendinnen in elke levensfase, maar alleen de gelukkigen hebben dezelfde vriendinnen in alle levensfasen. Emma, Iris en Jeanine, vanaf dat wij ondeugende kleutertjes waren op de Fortgens basisschool wandelen jullie al met mij mee, van levensfase tot levensfase. Soms meer contact, soms minder, maar altijd hecht en verbonden. Dank jullie wel voor jullie loyale vriendschap! Lieve Em, ik wil jou in het bijzonder bedanken. Jouw durf, veerkracht en rust inspireren mij. We woonden in dezelfde straat, nu al heel lang in een ander land, maar jij bent altijd in mijn hart. Sab, vanaf het stedelijk gymnasium in Leiden voegde jij je bij onze club en LP3 was compleet. Je bent zo'n trouwe vriendin en nodigt me met jouw onbevangenheid altijd uit tot vrolijkheid en kwetsbaar durven zijn. Dankjewel daarvoor! Lot, van naast elkaar in de klas op de middelbare school tot naast elkaar in een café, in gesprekken met jou leer ik steevast mezelf en de wereld beter kennen. Bedankt voor je onverdeelde aandacht op al die momenten. Elsa, wat ben ik gezegend dat wij elkaar van kleine kerk-vriendinnetjes tot nu, in al die jaren nooit los hebben gelaten. Ik durft er met een warme glimlach op te vertrouwen dat wij elkaar zullen blijven steunen tot we grijs en oud zijn. Jouw vriendschap betekent heel veel voor mij. Marion, het is bijzonder

hoe wij van ooit huisgenootjes aan Stockfarm Avenue in Sydney door de jaren heen zo synchroon zijn ontwikkeld. Het maakt dat ik er steeds weer naar uitkijk om met jou onder culinair genot (nu iets luxer dan toen :P) te reflecteren en te sparren over geloof, hoop en liefde.

Met al deze liefdevolle relaties die van onschatbare waarde zijn geweest voor mijn vroege ontwikkeling, betekende het begin van de studietijd aan de Universiteit Utrecht voor mij eindelijk 'de diepte in' en kennis opdoen over een, al vele jaren bestaande, prangende vraag: 'hoe worden mensen wie ze zijn?'. Wat ben ik dankbaar Lysanne, Loes, Suze, Iris, Esther en Lente ofwel 'DaSCA still alive-crew' dat ik die vaak leuke en leerzame, maar soms ook eindeloos moeilijke colleges, papers en opdrachten met jullie kon trotseren. Ook nu nog inspireren en steunen we elkaar. Lys, als er iemand mijn hoogtepunten en dieptepunten heeft meegemaakt, vaak op het gebied van studie of onderzoek, maar ook op andere belangrijke momenten, dan ben jij het. Onze schrijfweekjes, pandemische thuiswerkdagen, gesprekken over het leven en ambities én veelvuldige borrels zijn voor mij heel waardevol. Dankjewel voor je vriendschap en dat jij op dit hoogtepunt in mijn leven als paranimf aan mijn zijde staat.

Marcel, Odilia en Paul, jullie durfden het aan om met mij, destijds 'vers van de uni', de eerste lichting van het Topklastraject aan te gaan. Dit proefschrift zou er absoluut niet zijn geweest zonder jullie. Jullie onwrikbare vertrouwen in mij is goud waard!

Marcel, vanaf het schrijven van mijn bachelor scriptie tot vandaag de dag heb ik het voorrecht gehad om te mogen leren van jouw wijsheid, inzicht en ervaring. Ik ben ontzettend dankbaar dat jij mij al zoveel jaren als begeleider adviseert. Jouw altijd rustige en doortastende houding en feedback hebben mij geholpen om te groeien en verbeteren. Het betekent veel voor mij dat jij steeds weer jouw vertrouwen in mij hebt uitgesproken. Jouw aanmoediging en hulp bij het openen van deuren is zonder twijfel een van de redenen geweest dat ik dit ambitieuze traject heb aangedurfd en -gekund. Dankjewel!

Odilia, in de afgelopen jaren zijn er ontelbaar veel momenten geweest dat jij mij hebt geadviseerd, over papers, vergaderingen, keuzes, collega's etc. etc. Wat ben ik dankbaar dat ik jou steeds als hulplijn kon inschakelen! Ik heb grote waardering voor jouw scherpte en aanwijzingen die spreken van kennis en inzicht. Maar ook zeker voor jouw geduld met mijn niet-gehaalde deadlines en begripvolle doch resolute kunst om mij af te remmen en te focussen op prioriteiten. Ik ben ervan overtuigd dat jouw begeleiding mij heeft gemaakt tot een betere onderzoeker en daarvoor wil ik je hartelijk bedanken!

Uiteraard gaat mijn dank ook uit naar alle andere collega's van de afdeling ontwikkelingspsychologie en in het bijzonder de Jonkies. Het voelde steeds als 'thuiskomen' op de afdeling, ondanks dat ik er heel onregelmatig was, dat heb ik echt als heel erg fijn ervaren!

Paul, wat heb ik het bijzonder getroffen dat jij al zoveel jaren in verschillende rollen, o.a. als opleider, (co-)promotor en collega, in mijn carrière meeloopt. Bovenop jouw goede begeleiding in die officiële rollen waardeer ik jou als mentor, sparringspartner en mede-innovator. Jouw enthousiasme, doortastendheid, strategische denkkunst, kritische blik en vermogen tot verbinden en vernieuwen inspireren mij. Ik heb met ontzettend veel plezier van jou mogen leren en met jou mogen samenwerken en ben heel dankbaar dat ik dat in de toekomst mag blijven doen.

Met een heel dankbaar hart wil ik ook alle collega's van APOLO noemen. Alleen had ik nooit gekund wat wij als team voor elkaar hebben gekregen! Jullie zijn allemaal zo waardevol en ik voel me gesteund in het samen trekken, duwen, proberen, veranderen en motiveren waar nodig om dit leuke maar complexe onderzoeksproject op de rit te houden. De APOLO-borrels en congres-vakanties helpen daar ook zeker bij:). Danique, ik wil jou in het bijzonder bedanken voor onze samenwerking die altijd ongekend soepel en productief is. Je bent een grote steun en fijne sparringspartner en ik ben heel blij dat jij als paranimf aan mijn zijde staat! Ben en Igor, dank jullie wel dat jullie samen met mij de cyclus van frustratie en euforie van het schrijven van een artikel zijn aangegaan. Het is prachtig dat die beide manuscripten zijn gepubliceerd en onderdeel uitmaken van dit proefschrift. Kevin Beijer en Sandor Spruit, bedankt dat jullie willen fungeren als ons 'technisch geweten' en ons steeds weer met raad en daad bijstaan. Af en aan voegen bachelor- en master-studenten zich bij onze onderzoeksgroep, die een onmisbare bijdrage leveren aan de dataverzameling. Dank jullie wel! Echter, zonder alle jongeren die hun data beschikbaar stellen voor het onderzoek zou het project in zijn geheel niet mogelijk zijn, ik ben hen ontzettend dankbaar.

Zonder twijfel kan ik zeggen dat ik, naast de begeleiding van mijn fantastische promotiecommissie en onze fijne APOLO-onderzoeksgroep, het gestaag maar succesvol doorlopen van mijn Topklastraject en het jaar in jaar uit groeien als professional te danken heb aan alle fijne collega's bij Reinier van Arkel. Wat ben ik dankbaar dat ik met zoveel bijzondere mensen het mooiste beroep van de wereld mag uitoefenen! In het bijzonder wil ik mijn werkbegeleiders bedanken. Pinès, bij jou komen om te verzuchten en te sparren voelde altijd, en nog steeds, als een moment om op te laden. Jij kunt mij echt laten voelen dat ik er niet alleen voor sta en dat betekent heel veel voor mij. Jouw inzicht en ervaring helpen mij steeds weer op weg. Michel, ik heb bewondering voor jouw grootse denkvermogen en tegelijkertijd jouw aandacht voor

details. Jouw durf om dicht bij jezelf te blijven, vermogen om overzicht te scheppen en inzicht in het verbinden van individuele casussen met maatschappelijke problemen zijn voor mij een voorbeeld. Tom van Mierlo, Robert Derksen, Nathalie Wils en Petya van Vliet, jullie hebben mij als raad van bestuur en directie in mijn loopbaan steeds ondersteund en de vrijheid gegeven om mij te ontwikkelen als scientist-practitioner binnen de organisatie. Hartelijk dank voor jullie vertrouwen.

Door de jaren van dit ambitieuze traject heen heb ik het voorrecht gehad veel inspirerende mensen te leren kennen en met hen samen te werken. Om te beginnen a special word of thanks to prof. dr. Christopher Hopwood, for giving me the opportunity to learn from him and all the fantastic colleagues at the department of personality psychology at UC Davis. Chris, I admire your work and your sharpness concerning all things related to a new conceptualization of personality pathology. Your thoughts on taking the difficult road of 'not choosing sides of extremes but staying in the nuanced middle' inspired me and still encourage me to do so. Barbara de Clercq, Theo Klimstra, Lize Verbeke, Eline de Caluwé, Peter Prinzie en Lisanne de Moor, ik wil jullie als co-auteurs van een of meerdere papers in dit proefschrift bedanken voor het meedenken, meeschrijven en het mogen gebruiken van jullie data. Lisanne, ik geniet van onze gezamenlijke passie voor de narratieve identiteit en vind het heel leuk om met je te sparren over nieuwe projecten en mooie papers!

Een grote groep supervisoren heeft elk op hun eigen waardevolle manier bijgedragen aan mijn ontwikkeling. In het bijzonder wil ik Han Berghuis, Joost Hutsebaut, Hilde de Saeger en Richard Vuijk bedanken voor de leerzame supervisie-sessies over persoonlijkheidsdiagnostiek. Ook alle Youthlab collega's nemen een bijzonder plekje in mijn dankbare hart in. Samen met jullie tegendraads zijn en schotten doorbreken geeft me energie en de mogelijkheid om in een hoog tempo te leren en ontwikkelen. Wat vind ik het gaaf dat wij dit als team 'gewoon doen'. Ik wil daarnaast Wim en Yvonne heel hartelijk bedanken voor jullie gastvrijheid in Zutphen en het openstellen van jullie prachtige huis, waar Lysanne en ik inspiratie en rust konden vinden tijdens onze schrijfweken.

Toch is er niemand die 'het gewicht' van een dergelijk jarenlang opleidingstraject tot scientist practitioner zo goed begrijpt als mijn mede-Topklasgenoten. Wat ben ik blij dat ik bij deze bijzonder ambitieuze maar bovenal ook heel gezellige klas heb mogen horen (en misschien wel mag blijven horen). Jos Egger en Hanna Swaab, bedankt dat jullie dit mooie traject mogelijk hebben gemaakt. Resie, je bent een fantastisch en hartverwarmend mens en heel waardevol als mentor voor deze groep en ook voor mij! Daniel en Marloes, jullie wil ik in het bijzonder bedanken voor alle supergezellige, maar ook inspirerende en eerlijke gesprekken vol (h)erkenning. Hanneke, lieve ziel-

szus, jouw vriendschap verrijkt mijn blik op de wereld. Wat ben ik blij dat de Topklas én onze gezamenlijke liefde voor boeken en kennis-taartjes ons heeft samengebracht. Jouw steun met aandacht, gedichten en kunst is een onmisbare bemoediging en jouw lust om het leven te vieren maakt alle dagen lichter. Dankjewel voor alles!

Tot slot, sinds 20 mei 2023 officieel, maar al veel langer in mijn hart, mijn mooie man Pouya, en natuurlijk mijn schoonouders. Roya en Nader, ik voel me thuis bij jullie en altijd gezien, gehoord en geliefd, dat is heel waardevol voor mij. Lieve Pou, je bent een cadeau in mijn leven. Een steun, klankbord, schouder om op te huilen, partner-in-crime, mijn alles. Dankjewel voor je geduld met mij, op al die dagen dat ik chagrijnig, verdrietig of gestrest was en het vieren met mij, op al die dagen dat het leven ons voor de wind ging. Ik waardeer je en bewonder je. Man kheli dooset daram.