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The relation between self-event connections and personality functioning in youth with severe psychopathology

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Abstract

Objective: One way in which individuals construct their narrative identity is by making self-event connections, which are often linked to better functioning. Being unable to make connections is related to identity discontinuity and psychopathology. Work in the general population corroborates this association, but also highlights the importance of focusing on specific aspects of these connections and on vulnerable populations.

Method: We examined the association of self-event connections with personality functioning in youth with severe psychopathology (cross-sectional $N = 228$, $M_{age} = 19.5$, longitudinal $N = 84$), and the role of event and connection valence in the subsample of youth who made a connection ($n = 188$ and $n = 68$). Negative affectivity was controlled for in all models.

Results: We found no evidence that self-event connections, nor connection valence and its interaction with event valence, are related to functioning. Positive event valence was associated with better functioning. Higher negative affectivity was strongly linked to lower functioning and explained the relation between event valence and functioning. No longitudinal associations emerged.

Conclusions: These findings show that for youth with severe psychopathology making self-event connections may not be associated with better functioning. Moreover, negative affectivity may be a distal predictor of both event valence and functioning.

KEYWORDS

event and connection valence, narrative identity, negative affectivity, personality functioning, self-event connections

1 | INTRODUCTION

From early adolescence onward, answering the question of who they are and who they want to be in the future becomes a key developmental task for youth (Erikson, 1968). At the same time, they start to think about how their past, present, and future selves are linked together into a continuous narrative of their identity (McAdams, 1993). This

narrative identity may be threatened following events that people themselves consider moments of change, transition, or extreme stress, which results in feelings of self-discontinuity (Erikson, 1968). In some cases, these feelings may remain chronically unresolved and ultimately come to play a key role in the development, maintenance, and resolution of (personality) psychopathology (American Psychiatric Association, 2013; Klimstra & Denissen, 2017; Westen & Heim, 2003; Wilkinson-Ryan & Westen, 2000).

Reasoning about the relation of change or transition with the self, and explicitly linking experienced events to the self, is thought to help alleviate stress and restore one's sense of self-continuity (Habermas & Köber, 2015). This reasoning might be hampered in youth who experience severe (personality) psychopathology. Despite theory ascribing a pivotal positive relation of reasoning about the relation between an event and aspects of the self to youth functioning, empirical evidence for this link is not as straightforward. In particular, the function of self-event connections may depend on the valence of the event, valence of the connection made between the event and the self (i.e., meaning derived), and the transaction between them. In the present study, we examined how making self-event connections is related to functioning in a sample of youth with severe psychopathology, using their narratives on a turning point event.

1.1 | Self-event connections and personality functioning

Narrative identity reflects individuals' attempts to create a cohesive and integrated story of the lived life and their values, motivations, and actions (McAdams, 2013). Although skills for narrative formation already start to develop early in life (e.g., Fivush et al., 2006), the narrative identity only starts to become internalized in adolescence (Habermas & Paha, 2001; McAdams, 1985; McAdams & McLean, 2013; McLean et al., 2010). Autobiographical reasoning is the process through which individuals actively reflect on their past, present, and future, and link these aspects together into their narrative (Habermas & Bluck, 2000; McAdams, 1993). Within the context of a single event, this process is captured in the making of explicit connections between the event and aspects of the self (Pasupathi et al., 2007), thereby integrating the event into the life story.

Individuals use self-event connections as an important mechanism to develop and maintain their identity, and to give them a sense of self-continuity—that is, the feeling that one is the same person over time (Pasupathi et al., 2007). Individuals who are unable to make such connections, especially in the presence of many stressful and traumatic events that individuals with pathological problems often experience (e.g., MacIntosh et al., 2015; Sandberg et al., 1998), tend to experience feelings of discontinuity (Habermas & Köber, 2015). In time, such issues of self-discontinuity across time and space can result in the narrative identity becoming warped or stunted in development, which may come to play an important role in (personality) psychopathology (e.g., American Psychiatric Association, 2013). This may be especially apparent from adolescence onwards, when the task of forming an identity becomes more important for youth functioning (Erikson, 1968).

Self-functioning, or the ability of individuals to manage their identity and their personal goals (i.e., identity and self-direction), and interpersonal functioning, or their ability to experience intimacy and empathy in their relationships with others (i.e., Bach & Hutsebaut, 2018; Hutsebaut et al., 2016), have been used in concordance with maladaptive personality traits as a diagnosis-independent alternative to assessing personality pathology impairment (American Psychiatric Association, 2013). In the present study, we examined functioning as a single construct of personality functioning. Self-event connections may play a role not just in the development and maintenance of psychopathology, but also in the treatment thereof. Reasoning about how certain events influenced the self, whilst still feeling as though one is the same person as before the event, may be the key to acceptance of and ultimately recovery from pathology and to reducing impairment (e.g., Adler, 2012; Adler et al., 2008). Moreover, the presence (or absence) of self-event connections provides important insights in the self and world view of individuals, (the etiology of) their problems, and their resources (Duncan & Miller, 2000).

However, despite there being a clear rationale for why the process of making self-event connections may be particularly important in the context of psychopathology, empirical work—particularly in youth, for whom the construction of a stable and cohesive identity is the key developmental task—is lagging behind. Work in normative populations has shown that autobiographical reasoning is related to more positive functioning (for a recent overview, see Adler et al., 2015; McLean et al., 2020). Adolescents and young adults who thought about the personal meaning of an event for their life experienced a more developed and clearer sense of self (McLean & Pratt, 2006; Van Doeselaar et al., 2020). Furthermore, women in midlife who showed positive emotional resolution of or closure from an event reported more positive personality development and higher life satisfaction at a later age (Pals, 2006). In relation to pathology, research among young adults from the general population has found links of self-event connections with distress

(Merrill et al., 2016) and psychological problems (Holm & Kirkegaard Thomsen, 2018). Finally, adult outpatients with bipolar disorder on average reported less self-event connections in their narratives of past events than individuals in a healthy control group (Pederson et al., 2018). While research in clinical groups is limited, the above suggests that self-event connections may be related to personality functioning in this population.

1.2 | Self-event connections and personality functioning: Valence

Although making self-event connections is generally related to more positive functioning, there is also some evidence from the general population that this is not always the case (e.g., McLean & Manfield, 2011). Specifically, this association is found to be highly dependent on various factors, such as, personality characteristics, context, and age. For instance, for adolescent boys making a self-event connection when it is not yet developmentally appropriate may be stressful or point to the experience of events that bring about negative affect and which necessitate complex autobiographical reasoning (McLean et al., 2010). Thus, in this situation, making self-event connections is related to poorer rather than better functioning. Related to this, the association of self-event connections with personality functioning in youth with severe psychopathology may depend on the *valence of the event*. That is, whether an event is considered positive or negative impacts whether connecting it to the self is adaptive or maladaptive for individuals' functioning (e.g., Lilgendahl & McAdams, 2011). For instance, making a connection with the self for winning a soccer match may be differently related to functioning than making a connection for being bullied in childhood.

Although there is, to the best of our knowledge, no research yet examining event valence in a clinical population, research in the general population has shown that especially for negative events, autobiographical reasoning is related to better functioning in late adolescence and beyond (e.g., McLean & Fournier, 2008). Of course, experiencing a negative event does not necessarily mean that it will feature in the turning point narrative, as this may depend on other factors that determine whether or not individuals are likely to focus on negative events in their lives (e.g., neuroticism; Robinson, 2007; Robinson et al., 2007). However, negative events are generally accompanied by negative affect, and deducing meaning from events by linking them to aspects of the self may be one way of resolving that negative affect. For instance, linking one's childhood bullying to social development in later life may be an important step to acceptance of the event and the self, and recovery. As such, the need to explicitly derive meaning from such events may be greater than for positively valenced events.

On the other hand, and as may be especially true in a clinical population, making connections between an experienced negative event and the self may not always be a good thing. Generally, the idea is that psychological problems following the experience of a negative event may be due to the lack of integration with the life story which results in a violation of the sense of self (i.e., self-discontinuity; Dagleish, 2004). However, research on symptoms of post-traumatic stress disorder has shown that the event centrality of extremely negative events, or the extent to which an event has become a central component of the identity, is actually related to lower functioning (Berntsen & Rubin, 2007). This may be the case because the event or multiple events become a reference point in the life narrative, around which other memories are organized and from which expectations for the future are generated. This may result in a life narrative that is centered around negativity, or which is otherwise less cohesive or even stuck in development. Therefore, selecting the negative event for the turning point narrative and connecting it to one's identity through means of self-event connections may actually be related to poorer, rather than better, personality functioning. Coming back to the example of bullying, it is possible that linking one's personal worth to this event contributes to low self-esteem and therewith the development and maintenance of pathology. Taken together, these opposing effects of making self-event connections for negative events demonstrate that the effect may not be straightforward.

Not only valence of the event, but also *valence of the connection* might determine whether making self-event connections is related to better or poorer personality functioning (Banks & Salmon, 2012). Indeed, a focus on identity content (e.g., the meaning derived from an event) rather than processes (e.g., making self-event connections or not) has been suggested to be important for understanding how self-event connections relate to functioning (Klimstra & Denissen, 2017). Although there is as of yet no work testing this in a clinical population, results from normative samples have provided some preliminary evidence for this notion. For example, in young adulthood making positive self-event connections has been linked to fewer pathological symptoms (Holm & Kirkegaard Thomsen, 2018), and making negative connections has been linked to experiencing more psychological and identity distress (Merrill et al., 2016). As a result, we might expect that making connections that are negatively valenced will be linked to poorer personality functioning.

Valence of the event and valence of the connection may also interact in predicting personality functioning. That is, whether or not linking a negative (vs. positive) event to the

self is beneficial or detrimental for functioning may be dependent on the connection made for that event. Previous work in a normative sample has found that individuals who make positive self-event connections for negative events are likely to report better functioning than those with negative self-event connections (Merrill et al., 2016). For example, one may draw a positive lesson (e.g., "I realized how much my family really means to me and strive to argue less with them") from a negative event (e.g., death of a family member), which may be linked to better personality functioning. However, it is also possible that individuals draw a negative lesson (e.g., "I suddenly realized that I had not contributed at all and that ultimately my presence or absence was trivial") from a positive event (e.g., winning a soccer match with the team). We may expect that making a negative connection to the self for an event that was regarded as negative is especially detrimental for personality functioning, as it may actually increase the negative affect brought along by the event. Thus, it is important to look at not just valence of the event and the connection separately, but also in relation to one another.

1.3 | Current study

Narrative identity, and the making of self-event connections in particular, may play an important role in personality functioning, due to its function of integrating impactful events into the life narrative and creating a sense of self-continuity. This function may be especially important in youth with severe psychopathology, who have often experienced many negative events, and for whom the link of an important event to the self may be key in the development, maintenance, or resolution of their pathology. For instance, the particular meaning assigned to an experienced event may underlie the development of a negative or even fragmented self-view, may keep that self-view in place, and may need to be addressed and resolved in order for the pathology to be treated effectively (e.g., Park & Ai, 2006). Conversely, seeing oneself as being the same person across time and assigning a meaning that is not negative to the self, may be an important step toward recovery. As such, addressing the links youth make between important events and their identity may be a vital part of the treatment of their pathology. Thus, our main research question was whether making self-event connections would be related to personality functioning in a sample of youth with severe pathology. Based on results from the general population, we expected that youth who made a self-event connection would report higher personality functioning than youth who did not make self-event connections (see Figure 1a).

Additionally, we included negative affectivity as a predictor in this model, because it may confound the relation under investigation. Indeed, negative affectivity, characterized by emotional instability and high levels of negative emotions (Krueger et al., 2012), is known to be a strong predictor of mental and physical health (e.g., Kotov et al., 2010; Krueger & Markon, 2006; Lahey, 2009), and functions as a general factor underlying psychological problems more broadly (Brandes et al., 2019; Tackett et al., 2013). Thus, negative affectivity may be a general predictor of personality functioning. Moreover, higher negative affectivity has also been linked to maladaptive identity processes, such as having weaker commitments (Klimstra et al., 2012) and engaging in more rumination regarding one's identity (Hatano et al., 2017).

In addition to the general link between self-event connections and personality functioning, we examined for those youth who made a self-event connection whether valence of the event and valence of the connection were associated with personality functioning (see Figure 1b). For event valence, we had opposing expectations. On the one hand, it was expected that making connections for a negative event is more important (i.e., to alleviate negative affect brought on by the event) and thus linked to better functioning. On the other hand, and based on the idea of event centrality, we hypothesized that discussing a turning point narrative about a negative event would be related to poorer personality functioning. With regard to connection valence, we expected that positive (vs. negative) connections were related to better functioning. We also examined the interaction between event and connection valence, where we expected positive connections to be more strongly related to better personality functioning when these connections are made for a negative event. Here, we also included negative affectivity as a potential confounder. The research questions, hypotheses, and analyses of the present study were pre-registered at https://osf.io/75639.

Finally, supplementing these pre-registered hypotheses and on the suggestion of the editor, we used recently made available follow-up data to examine the associations described above longitudinally. In particular, we tested whether self-event connections, negative affectivity, and event and connection valence at T1 might also predict personality functioning at a later moment, which will be referred to as T2. Our hypotheses here were the same as for the cross-sectional data.

2 | METHOD

2.1 | Procedure and participants

Data were collected as part of the ongoing "Adolescenten en hun Persoonlijkheidsontwikkeling: een longitudinal

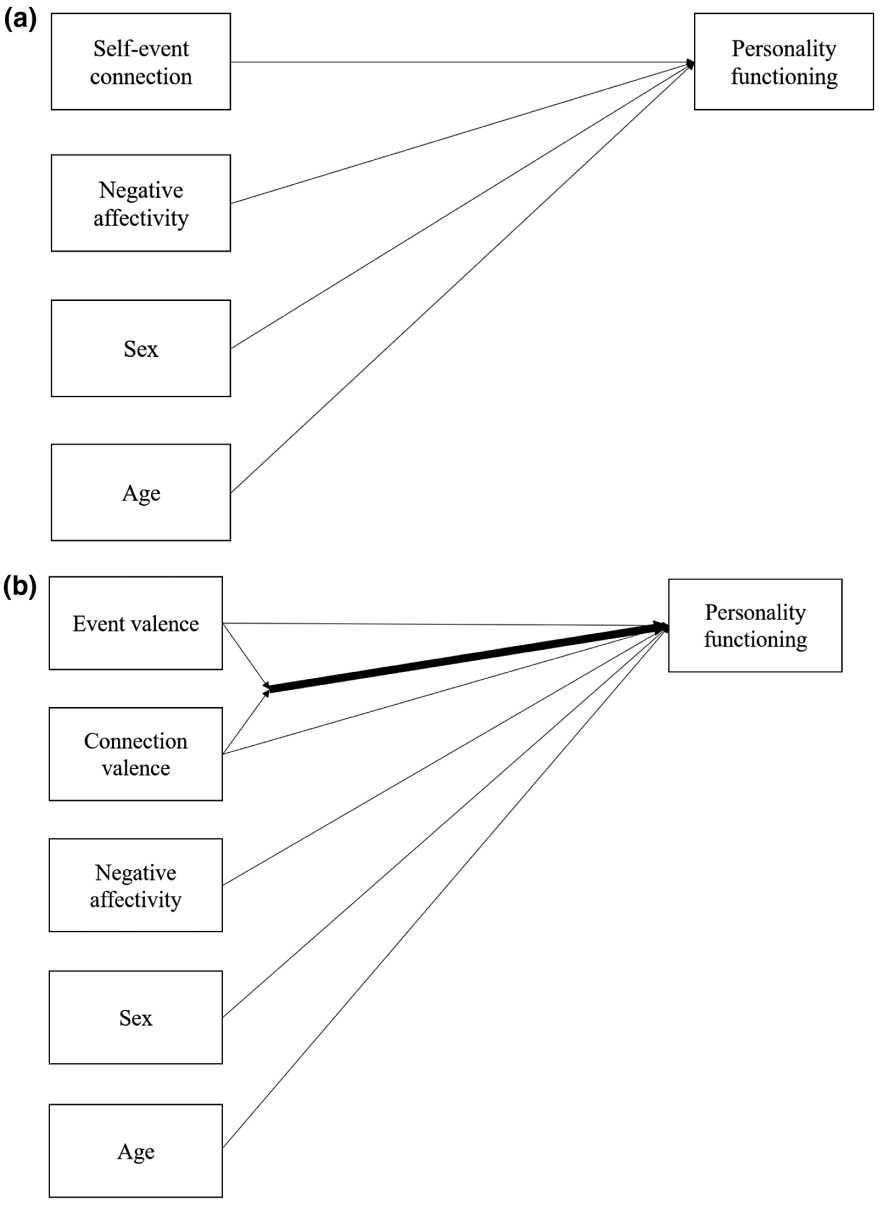

FIGURE 1 (a) Regression model of personality functioning on self-event connections. (b) Regression model of personality functioning on valence of events, valence of self-event connections, and their interaction. Model 1a was tested for the full sample. Model 1b was tested only for the subsample of youth who made a self-event connection in their turning point narrative. The bold arrow represents a moderation effect. Negative affectivity, sex, and age were included as control variables in both models

onderzoek" [Adolescents and their personality development: a longitudinal study] (APOLO) project (protocol number: FETC17-092). In this study, a sample of outpatient youth in two specialized mental health care institutions in the Netherlands are currently being followed longitudinally starting from the moment of intake at the institution. Participants were youth who were referred by their general practitioner to a specialized mental health care institute (as opposed to general mental health care) for severe, often co-morbid, psychopathological problems. Participants were referred for a range of problems, such as personality pathology, attachment problems, and mood disorders. The sample did not include youth of low IQ (<85), adolescents who experienced severe psychotic problems, acute suicidality or eating disorders. Self-report questionnaires on personality traits, functioning, and narrative identity were routinely integrated in the standard intake process, and information gathered in the study was also used by practitioners to inform diagnostic assessment or treatment. A semi-structured interview was conducted and recorded to examine the narrative identity more in depth. Assessment is repeated every six months after intake for 6 times.

At the time of conducting the longitudinal analyses (July 2021), the cross-sectional sample of APOLO consisted of 630 adolescents who had participated in the first wave of data collection (i.e., during the intake process at the institutions, which will be referred to as T1). In addition, for a subsample of these youth, follow-up data had been collected on at least one more time point ($n = 207$), which will be referred to as T2. For the present study, we included participants who completed the identity interview, and who had data on negative affectivity and personality functioning at T1. This resulted in a smaller sample

of 228 participants at T1 (M_{age} = 19.48, SD = 2.02), 73.2% of which was female. Of the individuals for whom a diagnosis was recorded in the system (n = 162), the majority was diagnosed with a personality (41.4%) or mood disorder (24.7%). Out of the 228 participants, data on personality functioning at T2 was available for 84 individuals, which made up the longitudinal sample of the study. Most of these follow-up assessments took place 6 months after intake (i.e., at Wave 2; n = 55) or 1 year after intake (i.e., at Wave 3; n = 17). A full description of the sample, including the age, sex, and diagnosis distribution is provided in Table 1. The data are not publicly available due to privacy and ethical restrictions. The data that support the findings of this study are available on request from the first author.

TABLE 1 Descriptive statistics of the study variables (n = 228)

	Mean (*SD*)/*N* (%)	Range
Age	19.48 (2.02)	14.00–23.00
Sex (female)	167 (73.2%)	
Diagnosis[a]		
Personality disorder	67 (41.4%)	
Mood disorder	40 (24.7%)	
Anxiety disorder	15 (9.3%)	
Post-traumatic stress disorder	13 (8.0%)	
ADHD	12 (7.4%)	
Obsessive-compulsive disorder	6 (3.7%)	
Autism	5 (3.1%)	
Other	4 (2.5%)	
Negative affectivity	1.77 (0.63)	0.25–3.00
Self-event connections (yes)	188 (82.5%)	
Event valence		
Negative	150 (66.4%)	
Neutral	44 (19.5%)	
Positive	32 (14.2%)	
Connection valence		
Negative	67 (35.6%)	
Neutral	82 (43.6%)	
Positive	39 (20.7%)	
Event types[b]		
Social	119 (50.4%)	
Health	40 (16.9%)	
Achievement	28 (11.9%)	
Self-development	19 (8.1%)	
Transition	14 (5.9%)	
Other	16 (6.8%)	
Personality functioning at T1	1.56 (0.49)	0.33–3.00
Personality functioning at T2	1.43 (0.58)	0.00–2.75

Note: Higher scores on the personality functioning measure (LPFS-BF) indicate lower functioning.

[a]Of the 162 individuals for whom a diagnosis was recorded.

[b]Of the 236 narratives for which this was coded.

2.2 | Measurement instruments

2.2.1 | Turning point narratives

Self-event connections were coded in turning point narratives at T1. Participants were asked to report a moment in their lives which they considered a turning point in their view of themselves or of the world, which was explained to them with a newly designed info-graphic. Using this figure, participants were given information on what a turning point is (i.e., "If you look back on your life, you can often identify one moment that was a "turning point", something happened that made you look differently at yourself or at the world"; "It is one moment that has made a big impression on you"), and what is not (i.e., "But not a longer period, such as a vacation. It *can* of course be one particularly pleasant or unpleasant moment on vacation"). They were then asked to write down a turning point in their life story. Later, they were invited during a semi-structured interview to tell more about this moment, how it made them think and feel, and what they wanted at that moment. They were also asked why it was important and what it says about who they are or who they want to be. Most of the narratives were about social events (e.g., romantic breakup, being abandoned or betrayed by a friend, parental divorce; 51.5% and 43.3% at T1 and T2), health (e.g., psychological health and illness, physical health; 16.0% and 23.3%), or achievement or failure (e.g., dropping out of school, getting a diploma; 11.7% and 13.3%). A complete distribution of the types of events is presented in Table 1.

The resulting narratives were transcribed and coded for the presence (1; e.g., becoming more mistrustful of others after a partner cheats on them, an event happening because they are always very reckless) or absence (0; e.g., feeling sad after a grandparent dies) of an explicit connection between the self and the event, following the coding system developed by Pasupathi et al. (2007) and adapted by Lilgendahl and McLean (2019). This particular adaptation has been implemented in previous studies in Dutch youth before (e.g., See et al., 2021; Van Doeselaar et al., 2020), but not yet in youth with severe psychopathology. In addition to this general coding, narratives in which self-event connections were made were also coded for event and connection valence. For both types of valence, we coded whether the valence was positive (1; e.g.,

getting a good grade, becoming more self-assured), negative (2; being bullied, not daring to ask anyone for help), or neutral/ambiguous (3; going from primary to secondary school, realizing not everyone can be trusted). For our analyses, valence was recoded to negative = −1, neutral/ambiguous = 0, and positive = 1.

In the APOLO project, each narrative was coded by two independent coders. Reliability of the main coders was acceptable for self-event connections (Cohen's κ = 0.65, 90% intercoder agreement) and for event and connection valence (κ = 0.77, 88% agreement and κ = 0.64, 74% agreement, respectively). Disagreements in the absence/presence of a self-event connection and valence were discussed by the coders until consensus was reached.

2.2.2 | Negative affectivity

Negative affectivity was measured at T1 with 12 items from the PID-5-100 (Koster et al., 2020; Maples et al., 2015), which is a shortened form of the Personality Inventory for DSM-5 (PID-5; Krueger et al., 2012). The domain negative affectivity is a combined score of the three facets emotional lability, anxiousness, and separation insecurity (see scoring instructions Krueger et al., 2012). The total PID-5-100 questionnaire consists of 100 items that were answered on a scale from 0 (*not at all true or often untrue*) to 3 (*completely true or often true*). Higher scores on the items indicate higher negative affectivity. An example item of negative affectivity is: "I never know where my emotions will go from moment to moment". Previous work has found acceptable validity and reliability of the PID-5-100 (Al-Dajani et al., 2015). In the present study, reliability of the negative affectivity domain was good, with Cronbach's alpha of 0.85.

2.2.3 | Personality functioning

We used the Level of Personality Functioning Scale-Brief Form (LPFS-BF; Hutsebaut et al., 2016) to examine personality functioning at T1 and T2. The questionnaire consists of 12 questions, which were answered on a scale ranging from 1 (*not at all true or often untrue*) to 4 (*completely true or often true*). As the items are framed as issues or hurdles individuals may experience, higher scores indicate lower personality functioning. The 12 items clustered into four subscales, which in turn clustered into two higher domains: self-functioning (identity and self-direction subscales) and interpersonal functioning (empathy and intimacy subscales). The self-functioning scales contain questions about individuals' ability to manage the self and their goals in daily life. The items pertain to how individuals regulate their emotions, how well they understand themselves, and their ability to set realistic goals and pursue them. Example items of the self-functioning scale are "I often do not understand my own thoughts and feelings" and "I often make unrealistic demands on myself". The items on interpersonal functioning pertain to individuals' ability to experience empathy and intimacy in their social relationships (example items: "I often have difficulty understanding the thoughts and feelings of others" and "I often do not succeed in cooperating with others in a mutually satisfactory way").

The LPFS-BF was shown to have acceptable reliability in previous research for the total scale, as well as for the higher domains (Bach & Hutsebaut, 2018; Hutsebaut et al., 2016). In the present study, the two domains were combined into one score of personality functioning. However, despite a strong correlation between the domains (r = 0.31 and r = 0.38 at T1 and T2, respectively), a confirmatory factor analysis showed that a single factor model did not fit the data well (CFI = 0.583, RMSEA = 0.126 and CFI = 0.539, RMSEA = 0.187 for T1 and T2). In comparison, a two-factor solution fit the data better (CFI = 0.845, RMSEA = 0.078 and CFI = 0.795, RMSEA = 0.126), although still not acceptably (Hooper et al., 2008). Given the rather questionable fit of the model, in addition to the analyses on the combined construct we also present the cross-sectional analyses with the two domains as separate outcomes in Tables S2 and S3 of the Supporting Information. The reliability of the combined construct was acceptable, with a Cronbach's alpha of 0.74 and 0.82 for the total scale of personality functioning at T1 and T2, respectively.

2.3 | Statistical plan

2.3.1 | Main analyses

All main analyses were performed using the "lavaan" R package (Rosseel, 2012). We first performed our preregistered, cross-sectional analyses. To examine to what extent the making of self-event connections was associated with personality functioning, and whether the link of self-event connections with functioning was different for different combinations of event and connection valence, we performed two multiple regression analyses. First, we tested a main effect model, where we examined whether or not making a self-event connection explained variance in personality functioning (Figure 1a), controlled for negative affectivity, sex, and age. Secondly, in the subsample of individuals who made a self-event connection, we tested a model with event valence and connection valence as independent variables. In the second step of this model, we

added the interaction of event valence and connection valence, to see whether the effect of connection valence was dependent on the positive or negative nature of the event (Figure 1b). Negative affectivity, sex, and age were also added as control variables.[1] An alpha of 0.05 was used to test the significance of effects. Benchmarks set by Funder and Ozer (2019) for longitudinal psychological research were used to evaluate the size of effects, with standardized effects of 0.05 considered very small, 0.10 considered small, 0.20 medium, and 0.30 large.

Next, we examined the same associations longitudinally, with the only difference being that the outcome variable, personality functioning, was measured at T2 instead of T1. Personality functioning at T1 was included as an additional control variable.

2.3.2 | Preparatory analyses

As described above, the final sample of this study was smaller than the total number of participants in the APOLO study, as we selected only individuals with data on all of our main variables at T1. The turning point interview in particular was a challenging aspect of the data collection, especially for younger participants, and proved to be a bottleneck in selection. This was potentially because in contrast to the questionnaire which could be filled out on a computer at home, the interview was completed at the institution. Compared to APOLO participants not selected for our study, those included in the present study were on average older ($t(406.07) = -0.97$, $p = 0.033$, $M_{included} = 19.48$, $M_{excluded} = 19.29$), and reported higher negative affectivity ($t(386.11) = -2.16$, $p = 0.031$, $M_{included} = 1.77$, $M_{excluded} = 1.63$) and lower functioning ($t(371.78) = -2.84$, $p = 0.005$, $M_{included} = 1.56$, $M_{excluded} = 1.41$). The sample of included and excluded participants did not differ in the distribution of their diagnoses ($\chi^2(12) = 14.68$, $p = 0.259$) or sex ($\chi^2(1) = 0.26$, $p = 0.612$).

Before starting our main analyses, we conducted two power analyses for the statistical analyses to ensure that we had enough power to detect effects of self-event connections on personality functioning. We did this by estimating how large a sample would be required to detect an effect of an estimated size, given power and alpha. Power analyses were performed in the G*power program, version 3.1. Power was set to at least 0.80 and alpha to 0.05 (two-tailed).

For all our models (i.e., the basic model with absence vs. presence of a self-event connection and the model with valence) we estimated the required sample size. Based on previous work (e.g., Banks & Salmon, 2012; McLean et al., 2010, 2020; Merrill et al., 2016), we expected to find a small to medium effect ($f^2 \geq 0.10$, rounded up from 0.095). To find an effect of at least 0.10 in each model, it was estimated that we would need a sample of at least 81 individuals. All analysis code is available on the project OSF page: https://osf.io/n4v2k/.

3 | RESULTS

3.1 | Descriptive statistics

Descriptive statistics of the study variables are provided in Table 1. On both negative affectivity and personality functioning, participants scored on average around the midpoint of the scale, meaning that they tended to neither agree nor disagree strongly with the items. Many of the participants made a self-event connection (82.5%), of which neutrally valenced connections were most often made (43.6%). Neutrally valenced connections were not significantly more common than negative connections (35.6%; $\chi^2(1) = 1.51$, $p = 0.219$) but were more common than positive connections (20.7%; $\chi^2(1) = 15.28$, $p < 0.001$). Negative connections were also significantly more common than positive connections ($\chi^2(1) = 7.40$, $p = 0.007$). With regard to event valence, the vast majority of youth reported negative events (66.4%), which was significantly more often than neutral events (19.5%; $\chi^2(1) = 51.44$, $p < 0.001$) and positive events (14.2%; $\chi^2(1) = 64.06$, $p < 0.001$). Neutral and positive events did not differ significantly in the frequency with which they were reported ($\chi^2(1) = 1.03$, $p = 0.310$).

Correlations between the variables are reported in Table 2. Youth who reported higher negative affectivity reported poorer personality functioning at T1 ($r = 0.58$, $p < 0.001$), and T2 ($r = 0.27$, $p = 0.014$). Self-event connections were not related to personality functioning at T1 ($r = 0.07$, $p = 0.280$) and T2 ($r = 0.16$, $p = 0.147$), nor to negative affectivity ($r = 0.04$, $p = 0.581$), indicating that whether or not youth made self-event connections was not related to their level of functioning and level of negative affectivity. With regard to valence, there was a consistent pattern of small-to-medium negative correlations for event and connection valence with personality functioning at T1 and T2 and with negative affectivity. This indicates that the positivity (vs. negativity) of the event that youth reported on and of the connection that they made to the self was both related to higher personality functioning (for T1: $r = -0.30$, $p < 0.001$ and $r = -0.25$, $p = 0.001$, respectively, for T2: $r = -0.34$, $p = 0.001$ and $r = -0.25$, $p = 0.037$) and lower negative affectivity ($r = -0.21$, $p = 0.002$ and $r = -0.25$, $p < 0.001$). Finally, there was also a strong positive correlation between event and connection valence ($r = 0.52$, $p < 0.001$) and between personality functioning at T1 and T2 ($r = 0.58$, $p < 0.001$). This shows that the valence of the event tended to correspond with the valence of the

TABLE 2 Correlations between the study variables ($n = 228$ at T1, $n = 84$ at T2)

	1.	2.	3.	4.	5.
1. Personality functioning T1					
2. Negative affectivity	0.557[a]				
3. Self-event connections	0.072	0.037			
4. Event valence	−0.299[a]	−0.205[a]	−0.014		
5. Connection valence	−0.246[a]	−0.252[a]	–	0.516[a]	
6. Personality functioning T2	0.580[a]	0.268[a]	0.160	−0.341[a]	−0.253[a]

Note: No correlation is reported between self-event connections and connection valence, as connection valence could only be coded for narratives that contained a connection.

Higher scores on the personality functioning measure (LPFS-BF) indicate lower functioning.

[a]$\alpha < 0.05$.

TABLE 3 Unstandardized and standardized coefficients of the regression of personality functioning on self-event connections in the full dataset ($n = 228$)

Independent variables	*b*		*β*	*p*	[LLCI, ULCI]
Sex	−0.04	0.06	−0.04[d]	0.531	[−0.16, 0.08]
Age	0.01	0.01	0.03[d]	0.559	[−0.02, 0.03]
Negative affectivity	0.44	0.04	0.57[a]	<0.001	[0.35, 0.53]
Self-event connections	0.07	0.07	0.05[d]	0.326	[0.03, 0.39]

Note: R^2 for personality functioning = 31.6%.

LLCI and ULCI = 95% lower limit and upper limit confidence interval.

Higher scores on the personality functioning measure (LPFS-BF) indicate lower functioning.

[a]Large.

[b]Medium.

[c]Small.

[d]Very small based on benchmarks by Funder and Ozer (2019).

connection, and that youth who reported high functioning at one point were also more likely to do so at a later point.

3.2 | Main analyses

3.2.1 | Cross-sectional analyses

To examine whether personality functioning at T1 was explained by self-event connections, we performed a regression analysis, controlling for negative affectivity, sex, and age (see Table 3). Findings showed that self-event connections were not related to youth functioning. However, youth who scored higher on negative affectivity on average reported lower functioning.

Next, to test whether event and connection valence may explain how self-event connections are related to personality functioning in the subsample of participants who made a self-event connection, we conducted a regression analysis of functioning on valence and negative affectivity (Table 4). Neither event nor connection valence was related to youth's level of personality functioning, which indicates that the positivity (vs. negativity) of the event and the connection made in the narrative did not explain differences in personality functioning after taking into account negative affectivity, sex, and age. As in the analysis in the complete dataset, higher negative affectivity was related to lower functioning. In a second step, we included the interaction of event and connection valence as a predictor in the model. Like the main effects, the interaction term did not relate to personality functioning. This indicates that the association of connection valence with functioning was independent of the valence of the event.

3.2.2 | Longitudinal analyses

After testing the cross-sectional associations, we performed similar analyses with personality functioning at T2 as outcome variable, additionally controlling for

TABLE 4 Unstandardized and standardized coefficients of the regression of personality functioning on event valence and connection valence in the subset of individuals with a self-event connection ($n = 188$)

Independent variables	*b*	SE	*β*	*p*	[LLCI, ULCI]
Step 1					
Sex	−0.03	0.07	−0.03[d]	0.621	[−0.17, 0.10]
Age	0.01	0.01	0.02[d]	0.714	[−0.02, 0.03]
Negative affectivity	0.45	0.05	0.57[a]	<0.001	[0.36, 0.55]
Event valence	−0.08	0.05	−0.12[c]	0.069	[−0.17, 0.01]
Connection valence	−0.03	0.05	−0.04[d]	0.546	[−0.12, 0.06]
Step 2					
Event valence × connection valence	−0.02	0.06	−0.02[d]	0.746	[−0.14, 0.10]

Note: Reported estimates were derived from the step 1 model, without the interaction term between event and connection valence. Only the interaction term estimate was derived from the full, step 2 model.

R^2 for personality functioning for the full model = 38.3%.

LLCI and ULCI = 95% lower limit and upper limit confidence interval.

Higher scores on the personality functioning measure (LPFS-BF) indicate lower functioning.

[a]Large.

[b]Medium.

[c]Small.

[d]Very small based on benchmarks by Funder and Ozer (2019).

TABLE 5 Unstandardized and standardized coefficients of the regression of personality functioning at T2 on self-event connections at T1 in the full dataset ($n = 84$)

Independent variables	*b*	SE	*β*	*p*	[LLCI, ULCI]
Sex	0.01	0.13	0.01[d]	0.928	[−0.23, 0.26]
Age	<−0.01	0.03	<−0.01[d]	0.964	[−0.05, 0.05]
Personality functioning T1	0.69	0.13	0.58[a]	<0.001	[0.44, 0.93]
Negative affectivity	−0.01	0.12	−0.01[d]	0.932	[−0.24, 0.22]
Self-event connections	0.06	0.14	0.04[d]	0.639	[−0.20, 0.33]

Note: R^2 for personality functioning = 33.9%.

LLCI and ULCI = 95% lower limit and upper limit confidence interval.

Higher scores on the personality functioning measure (LPFS-BF) indicate lower functioning.

[a]Large.

[b]Medium.

[c]Small.

[d]Very small based on benchmarks by Funder and Ozer (2019).

functioning at T1. First, we examined whether self-event connections could predict functioning at T2 (Table 5). In line with the cross-sectional models, we found no predictive effect of self-event connections on personality functioning, indicating that whether or not youth made a self-event connection was not associated with their later functioning. However, in contrast to our previous findings, negative affectivity also did not predict personality functioning. There was a strong association of personality functioning at T1 with functioning at T2, indicating that youth functioning was highly stable across this time interval. Similarly, in the subset of individuals who made a self-event connection, only previous functioning was associated with personality functioning at T2[2] (Table 6). Neither event or connection valence, nor their interaction were predictors of later functioning.

3.3 | Robustness analyses

In addition to the analyses aiming to test our hypotheses, we also conducted several additional analyses to test the robustness of our findings. First, to check whether our decision to treat self-functioning and interpersonal

TABLE 6 Unstandardized and standardized coefficients of the regression of personality functioning at T2 on event valence and connection valence at T1 in the subset of individuals with a self-event connection ($n = 68$)

Independent variables	*b*	SE	*β*	*p*	[LLCI, ULCI]
Step 1					
Sex	0.10	0.13	0.08[c]	0.455	[−0.16, 0.36]
Age	0.01	0.03	0.05[d]	0.585	[−0.04, 0.07]
Personality functioning T1	0.57	0.13	0.50[a]	<0.001	[0.33, 0.82]
Negative affectivity	0.15	0.13	0.14[c]	0.256	[−0.11, 0.40]
Event valence	−0.10	0.09	−0.12[c]	0.266	[−0.27, 0.07]
Connection valence	−0.06	0.09	−0.08[c]	0.498	[−0.23, 0.11]
Step 2					
Event valence × connection valence	−0.17	0.13	−0.15[c]	0.176	[−0.42, 0.07]

Note: Reported estimates were derived from the step 1 model, without the interaction term between event and connection valence. Only the interaction term estimate was derived from the full, step 2 model.

R^2 for personality functioning for the full model = 44.8%.

LLCI and ULCI = 95% lower limit and upper limit confidence interval.

Higher scores on the personality functioning measure (LPFS-BF) indicate lower functioning.

[a]Large.

[b]Medium.

[c]Small.

[d]Very small based on benchmarks by Funder and Ozer (2019).

functioning as one outcome (i.e., personality functioning) influenced our findings, we reran the cross-sectional models presented in Figure 1a,b with the two subscales as separate outcomes. Findings from these models did not differ much from those of our main analyses, with the exception that here event valence was associated with self-functioning, showing that individuals who wrote about positive events reported higher functioning. See Tables S2 and S3 of the Supporting Information for a full description of the findings of these models.

Second, in our main analyses we included negative affectivity as a predictor because it may confound the association between self-event connections and personality functioning. The findings from our cross-sectional analyses and the bivariate correlations corroborated the strong associations of negative affectivity with the other predictors and with our outcome. Because of these strong associations, we reran our cross-sectional models without negative affectivity (see Tables S4 and S5), to test whether negative affectivity may have explained away potential modest effects of self-event connections and event and connection valence. The findings from these models largely mirrored those of our main analyses. However, in the subsample of individuals who made a self-event connection, discussing positive events was now related to better personality functioning.

Finally, there was a significant correlation of event valence with personality functioning (Table 2) and event valence emerged in several post-hoc analyses as associated with functioning (Tables S1 and S3), most notably when we did not control for negative affectivity (Table S5). Therefore, we considered that event valence may play a mediating role between negative affectivity and personality functioning (see Table S6). The findings from a mediation analysis corroborated the strong association of negative affectivity with event valence and personality functioning, and the association of event valence with personality functioning, but did not provide support for a mediating role of event valence.

4 | DISCUSSION

In the present study we examined whether the ability of youth to connect events they have experienced to aspects of who they are (i.e., self-event connections) is related to their personality functioning at the same and a later time point. In addition, as this association may depend on how these connections are made, we investigated the role of valence of the event and valence of the connection for youth's personality functioning. We examined these relations in youth with severe psychopathology, who have often experienced many negative events and for whom the connection of these events to the self may play a key role in the development and treatment of their pathology. Our cross-sectional findings showed that making self-event connections was not related to personality functioning at the same time point. Individuals who narrated about a positive event did report higher functioning, but not after controlling for their levels of negative affectivity.

Neither connection valence nor the interaction between event and connection valence was related to functioning. Negative affectivity was strongly and negatively related to functioning in both analyses. Longitudinally, personality functioning was highly stable across the measurement interval. None of the narrative variables nor negative affectivity predicted later personality functioning, although negative affectivity was substantially correlated with later functioning.

4.1 | Self-event connections and personality functioning

Whether youth made connections between an event and aspects of the self was not related to personality functioning. Notably, this is in contrast to our expectations, which were based on the notion that self-event connections help individuals create consistency and continuity in their life story (Pasupathi et al., 2007), and thus are related to more positive outcomes. Moreover, individuals from healthy populations who were unable to make such connections tended to experience feelings of discontinuity (Habermas & Köber, 2015), and individuals with a greater ability for autobiographical reasoning reported better adjustment (for an overview, see Adler et al., 2015; McLean et al., 2020) and a more developed and clearer sense of self (McLean & Pratt, 2006; Van Doeselaar et al., 2020).

The fact that we found a very small, non-significant association, rather than a positive association of self-event connections with personality functioning, may be directly related to characteristics of the sample under study. In fact, the characteristics of our sample may point to aspects that are suggested as red flags for "when not to reason" (context; McLean & Mansfield, 2011). First, it may be related to the types of *events* discussed. Our sample is likely to have experienced many stressful and traumatic life events (MacIntosh et al., 2015; Sandberg et al., 1998), and they also disproportionally discussed a negative event in their turning point narrative, while neutral and positive events were much less common (see Table 1). Therefore, the association of self-event connections with personality functioning seems to be largely based on connections made to negative events. We also found negative event valence to be associated with lower personality functioning. Thus, if making a self-event connection is indeed less adaptive for a negative event because the event becomes a reference point for the individual (Berntsen & Rubin, 2007), this would explain why the overall effect may have averaged out to nonsignificant in our study.

Unfortunately, we cannot directly test the assertion that our participants were more likely to discuss negative events than healthy individuals, because past studies on event valence did not report the distribution of events (e.g., McLean & Fournier, 2008). Moreover, it is important to note that the degree of negativity of events may differ, where youth with severe psychopathology may have experienced more extremely negative and even traumatic events than youth in healthy populations. Perhaps most relevant for the purpose of comparison, in their study on autobiographical reasoning and well-being in midlife, Lilgendahl and McAdams (2011) reported an average event valence of 2.72 on a scale from 1 (*very negative*) to 5 (*very positive*). This suggests that in this healthy population sample, events were on average closer to neutral than to being negative. In the present study we found a significant negative correlation between event valence and negative affectivity, indicating that individuals with higher levels of negative affectivity more often discussed negative events. As negative affectivity has been consistently linked to pathology (e.g., Kotov et al., 2010; Kruger & Markon, 2006; Lahey, 2009; Tackett et al., 2013), this suggests that youth with pathology, as in our sample, may indeed more often discuss negative events than youth from the general population. Moreover, not just the negativity versus positivity of the events, but also other aspects such as the content or type of events may affect the role of self-event connections in personality functioning. For instance, narrating negative events that occurred outside of one's control versus those that occurred at least partially through one's own fault might be differently related to personality functioning (Mansfield et al., 2010). Similarly, the stigma attached to an event may make it more or less adaptive to narrate about (Delker et al., 2020). We may hypothesize that in addition to a difference in the percentage of negative events, a difference may exist in the type of events discussed by youth from the general population versus by those with psychopathology. However, more research with a larger sample is needed to make a direct comparison of the types of events discussed in normative populations compared to those in youth with severe psychopathology.

A second potential explanation for the nonsignificant association might lie in other aspects of the self-event *connections*, such as the content and complexity. First, it is important to look at what a connection is about. For many individuals with pathology, ambiguity may exist about what constitute parts of the self and what parts of the disorder (Dings, 2020). As a result, parts of the pathology may knowingly or unknowingly become part of one's identity (Cruwys & Gunaseelan, 2016; Marcia, 2006), which is thought to strengthen the symptoms and make treatment and ultimately recovery more difficult because individuals see the pathology as less changeable (Klimstra & Denissen, 2017). Second, not every self-event connection is equally complex, and it is possible that more complex connections are differently associated

with personality functioning than less complex connections. Although it has been suggested that making self-event connections may be more difficult and thus more rare for individuals with severe pathology (e.g., bipolar disorder; Pederson et al., 2018), we found that most youth were able to link the event to the self (82.5%). This is in line with research in a general population which shows that by late adolescence, most youth have developed the ability for autobiographical reasoning (e.g., Habermas & Paha, 2001; McLean et al., 2010). However, the meaning derived from the event can be more or less deep and complex. For instance, stability self-event connections are considered less complex than change connections because they do not facilitate development or change in identity (Pasupathi et al., 2007). Moreover, pathology may affect meaning making processes (McKay et al., 2012). Thus it is possible that youth with severe pathology—regardless of being able to make self-event connections—make less complex connections or less complex or coherent narratives in general. Therefore, content and complexity may explain individual differences in youth personality functioning, regardless of whether the valence of the event or the connection is negative or positive.

Finally and relatedly, it is important to consider that self-event connections may be less associated with functioning for youth with severe psychopathology. Asking questions (e.g., "What did you think and feel during this moment?", "What does this moment say about who you are or who you want to be?") helps participants scaffold their narratives. This is the case in all narrative studies that use prompts and follow-up questions, but may be especially important when studying youth with severe pathology. Youth with severe pathology such as borderline personality disorder experience poorer intuition and mentalizing in daily life than may be expected based on their "maximum capacity", due to the presence of interpersonal stressors in their lives (Fonagy et al., 2015). Thus, for youth with severe psychopathology, there may be a gap between the self-event connections they are able to make following a narrative prompt and questions and the connections they make in daily life. As a result, these former connections may be less related to actual functioning.

In sum, whether due to more frequent discussion of negative events or due to specific characteristics of the self-event connections or of our population, our findings on the association of self-event connections with personality functioning show that making a self-event connection may not always be related to better functioning. More research examining both clinical and healthy population samples and more research examining the qualitative aspects of self-event connections is needed to better understand the difference in findings with previous research.

4.2 | Event and connection valence, negative affectivity, and personality functioning

Similarly in contrast to our hypotheses, we found a very small to small, nonsignificant association of event and connection valence with personality functioning in our regression analyses when controlling for negative affectivity. There was also a very small to small nonsignificant relation of the interaction between event and connection valence with functioning. However, it should be noted that both event and connection valence were negatively correlated with negative affectivity and personality functioning with a medium to large effect size, indicating that youth who discussed negative events and made negative connections reported higher levels of negative affectivity and lower functioning. Negative affectivity was also strongly correlated to lower personality functioning. Moreover, and in line with previous research suggesting it to be a sort of general vulnerability factor (Brandes et al., 2019; Tackett et al., 2013), negative affectivity emerged as an explaining variable in the cross-sectional regression analyses and was substantially correlated with functioning at a later time point, both with effect sizes that were large to very large. In our post-hoc cross-sectional regression analyses without negative affectivity, we found that more positive event valence was significantly associated with higher levels of personality functioning (Table S5 of the Supporting Information), with a medium effect size. This finding indicates that event valence and negative affectivity show overlap in their share of explained variance in personality functioning, and that the overall negative link between self-event connections and functioning may indeed be explained by the overrepresentation of negative events in the turning point narratives.

For future work, it would be interesting to further examine the underlying mechanisms that explain why youth with higher levels of negative affectivity experience greater impairment. With regard to event valence, we may expect that youth with higher levels of negative affectivity are more likely to discuss negative events in their turning point narrative, because they also experience more negative (person-dependent) events (e.g., Jeronimus et al., 2014; Laceulle et al., 2015). In addition, and perhaps even more important than objectively experienced stressful events, individuals high on negative affectivity are more likely to experience events as stressful (Uziel, 2006; Widiger et al., 2002). Finally, being high on negative affectivity makes individuals more likely to ruminate (e.g., Robinson, 2007; Robinson et al., 2007), which may result in a greater focus on negative events (Michl et al., 2013; Moberly & Watkins, 2008; Ogle et al., 2017). These factors may all contribute to a greater

likelihood for individuals with high levels of negative affectivity to discuss negative events in their turning point narratives and to do so in less adaptive ways. Furthermore, they suggest that the effects of a more distant personality trait like negative affectivity might be explained by more applied, here-and-now narrative processes. A post-hoc test of the association between negative affectivity and personality functioning as mediated by event valence did not suggest significant mediation (Table S6 in the Supporting Information). Therefore, these findings suggest that rather than a mediation model, a spurious association may underlie negative affectivity, event valence, and personality functioning, where the former explains both the predictor (i.e., event valence) and outcome (i.e., personality functioning) in our main analyses. However, it should be noted that this mediation model was based on cross-sectional data, and that longitudinal data with at least three time points would be needed to appropriately test for mediation.

4.3 | Limitations

To our knowledge, the present study was the first to examine self-event connections and the link to adjustment in a sample of youth with severe psychological problems, yielding important new insights into the importance of narrative identity. In addition, the study went beyond investigating the overall link but also focused on event and connection valence as potential explaining factors. Finally, our sample consisted of youth with diverse pathology, making that our results do not only apply to individuals with a specific type of pathology.

However, some limitations also need to be addressed. Firstly, and related to this latter point, the fact that we included a wide array of psychopathologies may also have influenced our findings. The illness experiences of youth with the different pathologies (e.g., personality disorders, mood disorders, ADHD) are quite different and may have played a role in the non-significance of our findings regarding self-event connections. In the future, research should target more homogeneous clinical populations to better understand the association between self-event connections and personality functioning in specific clinical populations.

Secondly, although longitudinal data were already available for some youth in the APOLO project, this subsample was rather small ($n = 84$). Caution should be taken with the interpretation of the cross-sectional effects because they cannot show directionality of effects, and with the interpretation of the longitudinal effects because of the small sample size. Although our power analyses suggested that we had enough participants to detect small-to-medium effects, it is possible that smaller longitudinal effects were not picked up on. Indeed, the regression coefficients found for self-event connections, event valence, and connection valence were small across all models, suggesting that a larger sample would have been needed to detect potential effects for these narrative aspects. Therefore, future longitudinal research should explicitly examine directionality using a larger sample, as it could be that the directionality is reversed or even that the studied associations are bidirectional, with narrative identity predicting individual differences in functioning and functioning of youth predicting individual differences in narrative identity. Such research should further investigate change over time, to examine whether (lack of) change in the narratives of youth may play a maintaining or healing role in their functioning. For instance, past clinical work has examined the effects of increasing feelings of agency and connectedness to others to improve well-being (e.g., Adler, 2012; Adler et al., 2008). It is possible that increasing or decreasing meaning derived from events, or changing the particular meaning derived, may also result in improved functioning.

Third, given the unexpected non-significance of the association between self-event connections and personality functioning, it would have been useful to be able to make a direct comparison to a healthy population. For instance, it would be interesting to compare the event and connection valence distribution to see whether the overrepresentation of negative events may indeed provide an explanation for the nonsignificant association between self-event connections and personality functioning that was found. It is important for future research to directly compare results in a clinical and healthy population, to improve our understanding of where the differences come from.

Finally, the association between personality functioning and negative affectivity may have been overestimated due to shared-method variance (Podsakoff et al., 2012). Although shared-method bias is unlikely to completely account for the association as a link with overall well-being has consistently been found across studies (e.g., Kotov et al., 2010; Krueger & Markon, 2006; Lahey, 2009), it is important that future work includes other measures such as other-report questionnaires or observations to reduce bias.

4.4 | Conclusion

The present study examined whether self-event connections could explain and predict individual differences in personality functioning in a sample of youth with

severe psychopathology. In addition, event and connection valence were investigated to gain more insight into the general association between self-event connections and functioning. Contrary to previous work in healthy populations, our findings showed that making self-event connections was not significantly related to personality functioning at the same time point or the next. This may be due to the large number of negative events in the turning point narratives, which may be less adaptive to link to the self and may have thus leveled out the positive association of self-event connections with functioning. However, future studies should also examine other aspects of self-event connections, such as connection content and complexity. As expected, negative affectivity emerged as a strong explaining and, tentatively, predicting variable of functioning. Connection valence was not associated with personality functioning, nor was the interaction of event and connection valence. Event valence had a medium association with personality functioning after excluding negative affectivity as a predictor, suggesting that negative affectivity may have affected both the predictor and outcome in this association.

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CONFLICT OF INTEREST

The authors have declared no conflicts of interest for this article.

ETHICS STATEMENT

The APOLO project was ethically approved by the local faculty ethical review board at Utrecht University.

AUTHOR CONTRIBUTIONS

Elisabeth de Moor operationalized the study hypotheses together with Jolien Van der Graaff, Nagila Koster, Odilia Laceulle, and Susan Branje. She took the lead in drafting the manuscript and conducting and interpreting the results, as well as in revising the manuscript. Jolien Van der Graaff and Susan Branje were closely involved with the original draft and the revised versions of the manuscript. Nagila Koster and Odilia Laceulle set up and organized data collection for the APOLO project. They also provided input on conceptual and clinical issues at different stages of the process and contributed to the drafting and revising of the manuscript. All authors approved the final version of the manuscript.

ENDNOTES

[1] On the request of the editor, we also tested the model with dummy variables for event and connection valence. The findings of this analysis largely mirrored those of the main analyses. However, there was now also a significant effect of the positive event valence dummy, indicating that narrating a positive event was associated with higher functioning. The results from this additional model are described in more detail in the Supporting Information, Table S1.

[2] Interestingly, there was a substantial, significant correlation between negative affectivity and personality functioning at T2, as was the case for functioning at T1 (Table 2). This suggests that the predictive effect of negative affectivity may be explained entirely by other variables in the regression model such as youth's functioning at an earlier point.

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