

I WANT IT ALL AND I WANT IT NOW: IRRATIONAL BELIEFS AND DARK TETRAD TRAITS IN MEN

HOĆU SVE I HOĆU SADA: IRACIONALNA UV-ERENJA I OSOBINE MRAČNE TETRADE KOD MUŠKARACA

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Abstract

Keywords: Dark Tetrad, Hostile interpretation bias, Frustration tolerance, Schema

The Dark Tetrad (DT) – an umbrella term for four socially aversive traits (Machiavellianism, narcissism, psychopathy, and sadism) gained a lot of research interest. However, little is known about how these traits are related to cognitive constructs such as hostile interpretation bias (HIB) and low frustration tolerance (LFT). In an attempt to explain what could contribute to understanding the development of DT, the present study aimed to combine two different theoretical perspectives: a theory underlying CBT and a trait-based model of personality. The study used a community sample of men (N = 612) to test whether LFT (a) predicts HIB and the expression of DT traits and (b) has an indirect, mediated by HIB, effect on DT traits. Results showed a significant direct effect of LFT on all four DT traits. Also, the indirect effect was significant in all four tested models. It might be that, by seeking schema confirmation, individuals gradually develop a stable pattern of behavioral, emotional, motivational reactions, labeled as (DT) traits. HIB seems to be an integral part of the assimilation process, by mediating the relationship between LFT and all four DT traits.

Sažetak

Ključne reči: mračna tetrada, hostile interpretativne pristrasnosti, frustraciona tolerancija, šema

Mračna tetrada (MT) koja podrazumeva četiri društveno averzivne crte (makijavelizam, narcizam, psihopatija i sadizam) poslednjih godina značajno okupira pažnju istraživača. Međutim, malo se zna o tome na koji način su ove crte povezane sa kognitivnim konstruktima poput hostile interpretativne pristrasnosti (HIP) i niske tolerancije na frustraciju (NTF). U nastojanju da ponudi jedno od objašnjenja šta je to što bi moglo da dovede do razvoja crta MT, ovo istraživanje spaja dve različite teorijske perspektive: teoriju koja je u osnovi KBT-a i model ličnosti koji nudi okvir za razumevanje društveno neprihvatljivih obrazaca ponašanja. Istraživanje je sprovedeno na uzorku od 612 muških ispitanika iz opšte populacije sa ciljem da se ispita da li je NTF (a) prediktor HIP i osobina MT, kao i da li ostvaruje (b) indirektan efekat na MT, posredstvom HIP. Prema dobijenim rezultatima, NTF predstavlja značajan prediktor sve četiri crte MT.

Takođe, značajan indirektni efekat je zabeležen u sva četiri testirana medijaciona modela. Pretpostavka je da pojedinci, tragajući za potvrdom šeme, vremenom razvijaju stabilne ponašajne, emocionalne i motivacione obrasce koji su uobličeni u onome što nazivamo MT. Na osnovu uloge HIP kao medijatora veze između NFT i osobina MT, pretpostavlja se da je HIP sastavni deo procesa asimilacije.

Introduction

The Dark Triad represents three conceptually different but empirically overlapping socially aversive personality traits: Machiavellianism, subclinical narcissism, and subclinical psychopathy (Paulhus & Williams, 2002). Machiavellianism is characterized by highly selfish and manipulative behavior, a cynical view of the world, and a lack of morality (Jones & Paulhus, 2009). Narcissism predominantly manifests as grandiosity (i.e., an exaggerated sense of self-importance; Campbell & Miller, 2011), entitlement, and dominance (Paulhus & Williams, 2002). Psychopathy is recognizable by a deficit of self-control, lack of empathy, manipulateness, ruthlessness, and impulsivity (Hare & Neumann, 2008; Jones & Paulhus, 2011). Sadism, characterized by the essential enjoyment of hurting others, was later recognized as the fourth malicious trait. The concept of the Dark Triad was extended to the Dark Tetrad (DT; Chabrol et al., 2009; Međedović & Petrović, 2015; Paulhus, 2014). The DT personality traits have been extensively explored in the general population, as well as among samples of violent criminal offenders, with previous research being focused on examining the relationships between DT and variables such as aggression, Big Five personality traits, antisocial behavior, and leadership styles (Furnham et al., 2013; Paulhus et al., 2018). Despite a substantial number of studies concerning the DT traits, little is known about the relations between the dark traits and cognitive constructs such as low frustration tolerance (LFT) and hostile interpretation bias (HIB). A possible reason for the lack of such studies might be, as noted by Merrill and Straum (2004), the difficulty to incorporate theories describing personality traits as relatively stable and enduring characteristics into the theory underpinning Cognitive Behavioral Therapy (CBT) and Rational Emotional Behavioral Therapy (REBT) which focus on different dynamic processes amenable to change.

The founder of REBT hypothesized that humans are genetically predisposed to think irrationally (Ellis, 1962) and the possible mechanism responsible for irrationality is the biologically rooted "dominance of assimilation over accommodation" (DiGiuseppe, 1996, p.11). Since irrational beliefs are considered to be coded in biologically rooted schemas, it makes sense to assume that such beliefs can affect different aspects of humans' development and functioning from early years. It was not only Ellis who spoke about beliefs as being deeply rooted. Beck (1976) postulated that certain beliefs about oneself, others, and the world are developed early in childhood (e.g., Beck, 1976)

and thus, may affect perception, information processing, and, consequently, behavior (Beck, 1996, 2014; Dozois & Beck, 2008). According to Beck's theory of personality, cognitive schemas are structures that represent "fundamental units of personality" (Beck, 2014, p. 20). Precisely, a pattern of behavioral, emotional, motivational, and cognitive reactions that we typically describe as indicators of personality traits is, according to Beck (2014), an expression of a schema. Other psychotherapeutic modalities (e.g., Interpersonal Reconstructive Therapy [Critchfield et al., 2015], Metacognitive Interpersonal Therapy [Dimaggio et al., 2017], Schema-Focused Therapy [Young, 1999]) also emphasize the role of dysfunctional belief systems in the development of personality (in particular, the development of personality disorders). Based on the aforementioned theories of cognitive therapies, we assumed that certain cognitive constructs (dysfunctional beliefs and processes) can take part in the development of maladaptive DT traits.

LFT, also called discomfort anxiety (Ellis, 2003), originates from the contemporary REBT and is recognized as one of the four broad categories of irrational beliefs associated with dysfunctional emotions, psychopathological conditions, and maladaptive behavior, including aggression and violent behavior (Szentagotai & Jones 2010). In particular, people with LFT are "short-range hedonists," demanding comfort at all times, and are motivated to avoid short-term discomfort, even if experiencing such discomfort would bring them closer to their long-term goals (Ellis & Dryden, 2007, p. 22). At the same time, they seek to align reality with their desires, and if they fail to do so, they perceive the situation as unbearable (e.g., "If I don't get what I want, the situation is unbearable and I can't stand it"; Dryden, 2002). In this regard, individual differences in frustration tolerance reflect differences in the perceived ability to cope with frustration. That is, it is not the frustration of desire itself, but one's perceived incapacity to cope with it that causes emotional disturbance (e.g., depression, anxiety, anger) and maladaptive behaviors (e.g., physical and indirect aggression, procrastination, etc.; Fives et al., 2011; Harrington, 2005, 2006). Moreover, LFT has its roots in cognitive schema (Beck et al., 2014).

Some studies have implied that the tendency towards immediate gratification might be a feature shared by the Dark Triad traits. For instance, Vazire and Funder (2006) suggested that narcissists tend to exhibit behaviors that provide immediate gratification of their wishes, even if there is a long-term cost. Although the ability for delayed gratification is theoretically related to Machiavellianism, research shows that both those high in psychopathy and Machiavellianism tend to lack such ability (Miller et al., 2017). Psychopaths also hold a belief that discomfort must be avoided by all means regardless of the consequences (Hare, 1968). Since the inability to delay gratification and tolerate discomfort is an important feature of LFT, previous research indirectly suggests that these LFT and DT are possibly related to one another. However, no prior studies

focused on the relationship between dark traits and LFT using REBT theory as a framework, so the present study aims to fill that gap.

Using the postulates of the CBT theories (described above) as a framework, we proposed the idea that the DT traits might arise from LFT (LFT being part of the schema). Nevertheless, we also assumed that the relationship between these variables might not be so straightforward. Specifically, since the cognitive schema affects information processing (Beck, 2014; Dozois & Beck, 2008), we assumed that specific cognitive processes might mediate the relationship between LFT and DT. Given its previously established link with aggression and psychopathy, HIB was chosen as a cognitive variable (process) we decided to focus on in the present study. Given that schemas are rigid and that people tend to select and interpret information in a manner consistent with the content of schema, HIB could be a process that helps assimilation and consolidation of dysfunctional beliefs (i.e., "I can't stand when I have to obey the demands of others.").

HIB is a tendency to interpret ambiguous intentions of others in a hostile way and is a cognitive variable that is often explored to better understand and possibly prevent aggressive behavior (Wilkowski & Robinson, 2010). According to Dodge and Coie's (1987) Social information processing theory, HIB represents a deficit in processing ambiguous social cues that enhances the violence cycle – interpreting someone else's behavior as hostile leads towards a more defensive reaction. HIB is typically measured using vignettes depicting ambiguous situations where a person or a group is acting in a potentially provoking way and the respondent needs to assess their intentions, blameworthiness, and anger caused by their actions (Lobbestael et al., 2013; Zajenkowska et al., 2018). Social information processing theory has been supported in previous studies that showed a relationship between HIB and reactive aggression in the community sample (Lobbestael et al., 2013; Law & Falkenbach, 2017; Kuin et al., 2017). Researchers also found higher HIB in children and adolescents with conduct disorders (Crick & Dodge, 1994) and offenders (Bateman & Fonagy, 2008; Wang & Xia, 2019).

Given that previous research has shown a link between HIB and aggression, it is not surprising that HIB has also contributed to a better understanding of the relationship between aggression and DT (e.g., Law & Falkenbach, 2017; Maccoon & Newman, 2006; Mandarić, 2020). Namely, HIB was shown to be associated with personality traits that include hostile beliefs and reactive aggression, including narcissism and psychopathy (Baumeister et al., 1996; Serin, 1991; Law & Falkenbach, 2017). Individuals high in psychopathy are less able to distinguish between ambiguous and hostile situations (Maccoon & Newman, 2006), often interpreting such situations exclusively as hostile and reacting aggressively (Law & Falkenbach, 2017; Serin & Kuriychuk, 1994). According to the Interpersonal theory of psychopathy (Blackburn, 1998), psychopathic characteris-

tics are associated with hostile irrational beliefs. A schema that contains such beliefs contributes to the biased interpretation of other people's behavior as hostile (Wilks-Riley & Ireland, 2012). Additionally, by labeling the behavior of others as hostile, those high in psychopathy rationalize their aggressive behavior (Vitale et al., 2005), but also confirm their dysfunctional belief system (i.e., "People must behave according to my wishes, and I cannot tolerate it if they don't."). The susceptibility of psychopaths to the HIB increases when they are more exposed to misinterpreted situations (Wallace et al., 1999).

Unlike high-psychopathy individuals, narcissists are extremely vulnerable to provocation due to the fact that their overly inflated but fragile self-esteem (exaggerated positive self-schema) requires continuous external self-affirmation (Morf & Rhodewalt, 2001). Therefore, they often tend to react aggressively when they perceive a situation as challenging to their grandiose view of themselves (Li et al., 2016; Zeigler-Hill, Myers & Clark, 2010). Accordingly, they seek to punish those who criticized or hurt them (Baumeister et al., 2000; Rhodewalt & Morf, 1995, 1998; Twenge & Campbell, 2003).

The present study

To summarize, individuals with LFT, apart from seeking immediate gratification and having difficulties tolerating discomfort, tend to externalize all responsibility for undesirable events (Deffenbacher, 1999) and blame others for experiencing the discomfort in the first place (DiGiuseppe & Zeeve, 1985). Based on the existing theory, we hypothesize that LFT is a predictor of DT traits. The basic assumption posed in this study is that the core irrational beliefs (i.e., LFT) influence our information processing and that their rigid nature drives the tendency to assimilate any information from the external world in a way that confirms the distorted type of thinking (Beck, 1996, 2004; DiGiuseppe, 1996). Biased information processing (i.e., HIB) can be seen as a means of assimilation that further affects our behavior and shapes our personality. Thus, we expected that LFT has both direct and indirect effects on DT (mediated by HIB).

Method Sample

The sample included 612 males from the general population (M age = 41.73, SD = 14.97). This community convenience sample was collected by undergraduate psychology students who received course credits for this activity. Participants had the following educational background: 51% had completed high school, 23.2% had some form of higher education, 19.8% elementary school, and 6% did not complete elementary school). All data were collected in 2017. This sample intentionally included only male participants because data were collected as a part of one larger study that also included male inmates.

Before running the analyses, nine participants

that were detected as multivariate outliers were removed. The sample was further reduced to 606 participants after applying listwise deletion (which is the default in the PROCESS macro) when the main statistical analyses were conducted.

Measures

Short Dark Triad (SD3; Jones & Paulhus, 2014; for the Serbian translation see Dinić et al., 2018). SD3 is used as a measure of three aversive personality traits labeled as Machiavellianism (9 items, $\alpha = .75$), Narcissism (9 items, $\alpha = .60$), and Psychopathy (9 items; $\alpha = .74$). Responses are collected using a 5-point Likert scale (1 – strongly disagree, 5 – strongly agree) and the sum score for each subscale was calculated.

The Comprehensive Assessment of Sadistic Tendencies (CAST; Buckels & Paulhus, 2014; for the Serbian translation see Dinić et al., 2020). CAST is an 18-item scale used to assess direct (verbal and physical) and vicarious sadism. Responses are collected using a 5-point Likert scale (1 – strongly disagree, 5 – strongly agree). For this study, only the total score was used ($\alpha = .80$).

Frustration Discomfort Scale (FDS; Harrington, 2005; for the Serbian translation see Stanković & Vukosavljević-Gvozden, 2011). FDS has 28 items and is used to assess levels of frustration (discomfort) intolerance on a 5-point Likert scale (1 – not present at all, 5 – very strong). For this study, a total scale score was used ($\alpha = .88$).

Hostile Interpretation Bias (HIB; Lobbestael et al., 2013; Serbian adaptation, Volarov & Novović, 2017, unpublished manuscript). HIB consists of 8 vignettes describing ambiguous, provoking social situations, negative emotions, work, and general activities. For each vignette, four potential interpretations of the described situation are offered (positive, negative, neutral, and hostile). Participants are required to rate how likely each of the interpretations is using a 7-point Likert scale (1 – less likely, 7 – highly likely). In this study, we only used a sum score based on participants’ ratings of the likelihood of hostile interpretation ($\alpha = .81$).

Data Analytic Plan

Descriptive statistics and correlations between LFT, HIB, and DT traits were calculated and reported. We also tested four mediation models using Model 4 from the PROCESS Macro for SPSS (Version 3.5.3; Hayes, 2018). In all four models, LFT was defined as a predictor and HIB as a mediator. We varied criteria in these four models using four different DT traits. Figure 1 represents the

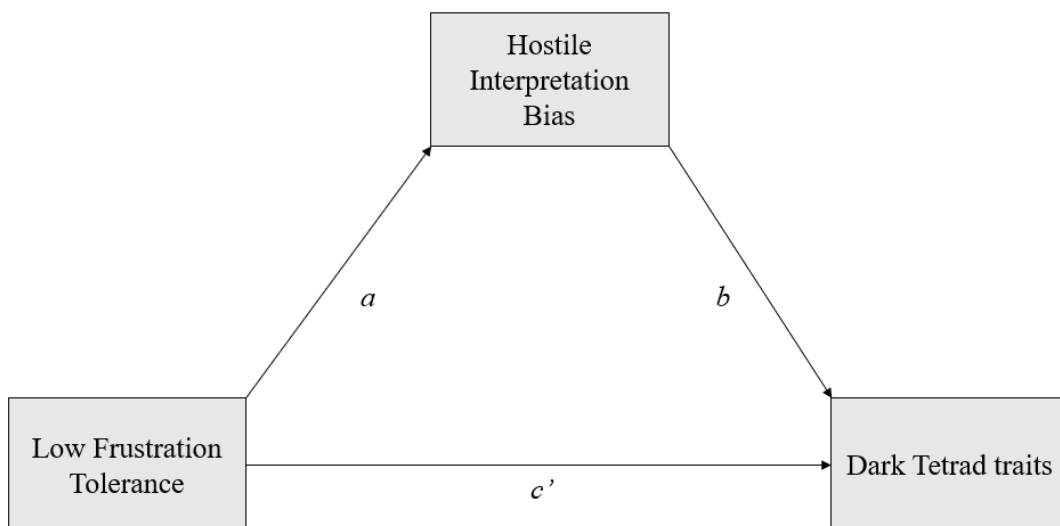


Figure 1. Conceptual diagram of the tested models

The following effects were tested: 1) direct effects of LFT on DT traits (i.e., path c') and 2) the indirect effect (ab) of the LFT on DT via HIB. Bootstrapped confidence intervals ($n = 5000$) were used to test the significance of the indirect effects.

Results

Descriptive statistics, correlations, and differences between samples. Along with the descriptives, Table 1 contains internal consistency reliability statistics for each

scale score calculated within each sample. The values for skewness and kurtosis were suggesting that the distribution of data does not significantly deviate from the normal distribution (George & Mallery, 2020). Except for the Narcissism score, scale scores had acceptable reliability.

Table 1. Mean, standard deviation, scale reliability, and correlations between Dark Tetrad traits, HIB, and LFT

	M (SD)	2	3	4	5	6
1 Machiavellianism	27.68 (6.00)	.40***	.46***	.36***	.27***	.27***
2 Narcissism	25.07 (5.11)		.39***	.34***	.20***	.24***
3 Psychopathy	20.03 (5.99)			.60***	.38***	.27***
4 Sadism	31.49 (8.83)				.39***	.27***
5 HIB	15.62 (7.78)					.24***
6 LFT	84.08 (17.98)					.34***

Note.HIB – Hostile interpretation bias. LFT – Low frustration tolerance. * p < .05. ** p < .01. *** p < .001.

Correlations between the variables were calculated and shown in Table 1. All variables were significantly correlated. DT traits displayed moderate-to-high correlations, and LFT was low-to-moderately correlated with DT traits.

Small but significant direct effects of LFT on DT traits were detected across all four models. Additionally, the significant mediating role of HIB was also registered in all four models (Table 3).

Table 2. A direct effect of LFT on DT, bootstrapped indirect effects of the LFT on DT via HIB

Criterion	c' (CI)	ab (95% CI)
Machiavellianism	.067 (.040; .094)	.067 (.040; .098)
Narcissism	.053 (.030; .076)	.045 (.020; .075)
Psychopathy	.052 (.026; .078)	.109 (.075; .147)
Sadism	.061 (.023; .099)	.115 (.081; .153)

Note.c' – direct effect. ab – completely standardized indirect effect. CI – Confidence interval.

Discussion

The current study aimed to examine the relationship between LFT, HIB, and the DT personality characteristics using the community sample of men. We relied mainly on Beck's theory (i.e., Beck, 1976, 2014), which implies that

cognitive schema is the basic element of personality. Irrational beliefs such as LFT (coded in the schema) and HIB (a process modulated by schema) are considered to develop early in life, contributing to our reasoning that their development might precede the occurrence of DT characteristics. Our hypothesis that LFT predicts DT was supported

given that the direct effect of LFT on DT was significant. Additionally, HIB significantly mediated the relationship between LFT and all DT traits.

Across all the tested models, LFT directly predicted the DT traits, and HIB played a mediating role. Such a pattern (i.e., similar relationships with LFT and HIB for all DT traits) possibly arises from the overlap between DT traits. Even though the four traits that comprise the tetrad are distinct, they seem to have a common core and are not entirely conceptually different. Our results contribute to the idea that DT traits have something in common and are in line with Baughman (2015), who said that the belief that one cannot delay gratification and tolerate discomfort, which is a feature of LFT, seems to be shared by the DT traits. From the perspective of CBT theories (i.e., Beck, 2014), individuals with core irrational beliefs (such as LFT) tend to shape the environment in a way that can help them either confirm their beliefs (schema) or avoid reassurance. By seeking schema confirmation, individuals gradually develop a stable pattern of behavioral, emotional, and motivational reactions labeled as traits. Nevertheless, the development of personality traits is undoubtedly a complex process, with traits being products of the interplay of various factors. We suggested in our study that dysfunctional beliefs may have a role in trait development, but they are not the only factors contributing to it.

The core irrational beliefs can also affect our information processing (Beck, 2014; Dozois & Beck, 2008). People often tend to interpret situations in a biased, schema-consistent manner so they can confirm and not dispute their irrational beliefs (Beck, 2014; Dozois & Beck, 2008). As mentioned in the introduction, irrationality is considered to reflect the biologically rooted "dominance of assimilation over accommodation" (DiGiuseppe, 1996, p.11), and HIB might be just one of the cognitive processes that further foster assimilation. Imagine the one who believes that others must perceive how special one is and cannot tolerate it otherwise (LFT). When faced with a situation where one is not perceived as special, one tends to confirm the schema by all means. Instead of reconsidering the content of schema, one attributes hostility to others (i.e., HIB as a mediator), with such interpretation both "saving" the schema and further fostering the development and maintenance of DT traits (narcissism in this particular example). It could be that the mechanism is the same across different traits, but that the schema content is trait-specific (i.e., one can be frustrated if one's grandiosity is not confirmed, as opposed to one who gets frustrated over other's disobedience).

Sadistic reactions are seemingly unprovoked, possibly because understanding what contextual cues can trigger core beliefs such as "I must be in control and demonstrate power" or "I can get excited only if I watch violence or act violently" is far from easy. However, in some cases, individuals can be aware that malicious behavior is not socially desirable, thus they try to find an acceptable way to act in accordance with their beliefs - for example

by triggering HIB that provides a rationale for acting violently towards others. Machiavellianism is characterized by pursuing personal interests (e.g., money, power) no matter what. Thus, the individual's perceived incapacity to cope with the frustration of interests (LFT) can further enhance manipulative and callous behavior (DT). Finally, any situation that threatens to jeopardize an instant gratification of wishes of the already impulsive psychopath is likely to trigger psychopathic tendencies. To sum up, different triggers (e.g., ego threat, boredom, thwarted interests, and thwarted desires) might activate a schema that further sparks a person's reactions that are in line with specific DT traits. In addition, it seems that the reaction of men individuals from our community sample, at least partially, goes through "blaming others". While they tend to confirm their schema, rather than re-evaluate it, it looks like they seek an "acceptable" way to do it by attributing the responsibility to others. In other words, they seem to rely on cognitive processes in order to save their schema (e.g., my schema is not confirmed by others - others are evil and hostile, and do not wish me well, anyway - my schema remains untouched). At the same time, dark features might also stem directly from LFT, implying that on some occasions individuals tend to get whatever they want (i.e., confirm their schema) by all means. In this respect, they might use others as a tool for achieving what they want to achieve, regardless of whether they perceive others as responsible for their frustration or not.

Irrational beliefs, including LFT, are assumed to be the so-called "hot cognitions" requiring a trigger to become activated and to induce dysfunctional emotions and behaviors (Beck, 2014). Contrary to experimental measures, self-reports cannot capture the "hot cognition", meaning that self-reported LFT is actually "cold". Probably the same applies to HIB. HIB was examined using vignettes, thereby provoking participants' responses to ambiguous situations. In this regard, a limitation worth mentioning is that a verbal response to a hypothetical situation may be different from the actual behavior (Vitale et al., 2005). It would be interesting to check if comparable results would be obtained by measuring LFT and HIB while "hot", and also, to examine whether the pattern of relationships between LFT, HIB, and other variables would be comparable.

Another limitation of the present study is its cross-sectional nature. Based on Beck's theory of personality, we proposed that DT traits might be rooted in and follow from core irrational beliefs, such as LFT. However, one can also argue that our beliefs stem from our personality and that the model should have been specified somewhat differently. Thus, although our assumptions are based on the theory, the major limitation of our study concerns measuring all the constructs at the same point in time. Only a longitudinal study has the potential to answer the question about what goes first – core beliefs or personality traits. Yet, our study is novel and potent considering that no prior studies explored the relationship between these

constructs considering the model that we tested. Another limitation comes from relying exclusively on self-report measures. However, research shows that, despite social desirability, self-report measures do show predictive validity, even in the most extreme cases, such as predicting recidivism in offenders (e.g., Mills et al., 2003). It is worth mentioning that the study results that include narcissism should be interpreted with caution given that the narcissism subscale score showed limited reliability. Finally, this study suggests that certain therapeutic interventions, such as REBT-based interventions and Cognitive Bias Modification (CBM), should be considered as a treatment of choice for reducing LFT and HIB, especially among individuals engaged in antisocial activities at a younger age. Such early interventions might not be able to entirely change the course of one's personality development but might foster one's adaptation as opposed to assimilation, which can be of value to one's overall socialization and further development.

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