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CHAPTER BOOK:

JUVENILE PSYCHOPATHY AND JUVENILE DELINQUENCY

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JUVENILE PSYCHOPATHY

When studying child and youth conduct problems there is a particular need of identifying developmentally distinctive and meaningful patterns of problematic behavior. Conduct problems, involving a heterogeneous pattern of deviant behaviors, including aggressive, oppositional or destructive behavior, defiance, rule-breaking, deceitfulness, and disregard for others, are considered one of the most relevant and prevalent disorders in childhood and adolescence (Thomas, 2010). It would have its maximum expression in the diagnostic of conduct disorder, a syndrome included in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5), which involves a repetitive and persistent pattern of behavior that violates the rights of others, or in which major age-appropriate societal norms or rules are violated (American Psychiatric Association, 2013). Even considering that not all children and adolescents that show some pattern of disruptive behavior would meet the criteria for conduct disorder, it should be noted that child and youth conduct problems still represent the primary reason for referring youths to clinicians and mental health services (Baker, 2013). Nowadays it is widely assumed that conduct problems represent a heterogeneous phenomenon, comprising separable domains and showing multiple pathways over the life span (Nagin & Tremblay, 1999). By assuming these patterns of developmental heterogeneity, the identification of children at increased risk for being involved in more severe and persistent problematic behavior would be facilitated and, in turn, would favor the promotion of new advances in terms of diagnostic classification, prevention and treatment (Frick, Ray, Thornton, & Khan, 2014a).

With the particular aim of better understanding the determinants of severe and long-lasting conduct problems, a configuration of affective, interpersonal and behavioral traits, similar to those that define adult psychopathy, has been proposed for delimiting a specific severe, pervasive and persistent pattern of young problematic and antisocial behavior. This perspective was adopted after an extensive body of research supporting a strong link between adult psychopathy and severe violent and non-violent antisocial behavior and delinquency (e.g., Hare

& Neumann, 2008), high rates of recidivism (e.g., Leitisco, Salekin, DeCoster, & Rogers, 2008; Salekin, 2008), and relatively poor treatment outcomes (e.g., Harris & Rice, 2006). Similar associations were also observed among young populations, with psychopathic personality closely related to frequent and severe behavioral and psychosocial problems, including conduct problems and aggression (e.g., Rowe et al., 2010), Attention-Deficit/Hyperactivity Disorder symptoms (ADHD; Svecke & Kosson, 2010), future antisocial behavior and delinquency (e.g., McMahon, Witkiewitz & Kotler, 2010), chronic and serious offending (e.g., Corrado, McCuish, Hart, & DeLisi, 2015), both general and violent recidivism (e.g., Salekin, 2008), a lack of prosocial behaviors and social competence skills (e.g., Fontaine, McCrory, Boivin, Moffitt, & Viding, 2011), poor school adjustment (e.g., Ciucci, Baroncelli, Franchi, Golmaryani, & Frick, 2014), and even adult psychopathy (e.g., Hawes, Byrd, Waller, Lynam, & Pardini, 2017). All this knowledge has served as a way to identify the potential precursors and transitions to adult psychopathy, as well as to further understand the development of the most severe, violent and persistent pattern of youth problematic and antisocial behavior.

The study of the development of psychopathic personality has generated an increasing interest during the last decades. Prior research has shown that psychopathy does not emerge suddenly in adulthood, but it can be also reliable assessed and identified in preschool, school-aged children, and adolescents (see Colins et al., 2014; Salekin, 2016a, for comprehensive reviews of psychometrically and conceptually assessable psychopathic traits in childhood). As occurs in adult samples, research has shown that child and youth psychopathic personality is a multifaceted syndrome comprising a constellation of co-occurring interpersonal, affective and behavioural/lifestyle traits (Andershed et al., 2002; Colins et al., 2014; Cooke & Michie, 2001; Hare & Neumann, 2008; Salekin, 2016a). Psychopathic traits under the interpersonal dimension traditionally include features such as lying, manipulation, arrogance, deceitfulness, dishonesty, grandiosity, and glibness/superficial charm. All of them have been included in several conceptual models of the youth psychopathic construct under the label of Narcissism (Frick, Bodin & Barry, 2000), Grandiose-deceitful (Andershed et al., 2002; Colins et al., 2014), or Grandiose-manipulative (Salekin, 2016a) dimensions. The affective dimension usually

comprises psychopathic traits like callousness, lack of empathy, shallow affect, lack of guilt and remorse, or failure to accept responsibilities for ones actions. This affective dimension has been commonly included in most conceptual models as the Callous-unemotional (CU) traits facet, being the most analyzed one in the field of child psychopathic personality (Frick et al., 2014a). It has been also represented as the Meanness phenotype according to the triarchic model of psychopathy (Patrick, 2010). Finally, under the behavioral dimension we could find traits like impulsivity, need for stimulation, sensation seeking, proneness to boredom, lack of realistic long-term goals, and irresponsibility. These kind of behavioral/lifestyle traits have been commonly represented as the Impulsive/conduct problems (Frick et al., 2000), Impulsive-need of stimulation (Andershed et al., 2002; Colins et al., 2014), or the Daring-impulsive (Salekin, 2016a) dimensions in traditional conceptual models of psychopathy, and was represented as the Disinhibition phenotype within the triarchic model (Patrick, 2010).

The downwards extension of psychopathic personality: Conceptualization, assessment methods and controversies

As occurs with the definition of the construct in adult populations, the study of psychopathic personality in youths has had its early underpinnings in classic conceptualizations. As early as Cleckley's work, *The Mask of Sanity,* (1941/1976), the author acknowledged that the psychopathic personality profile may have its roots in childhood and adolescence. Within the same period, in two interesting round tables discussion, Karpman (1949, 1950) analyzed the applicability of the psychopathic construct to children, defining some of the most important characteristics, and raising some of the most enduring debated questions, such as the specification of the core defining features or the etiological mechanisms underlying. Moreover, after identifying a specific subgroup of antisocial youths (around 14%) showing similar traits and acting in a similar way to adult psychopaths, McCord and McCord (1964) highlighted the relevance of identifying and treating psychopathy also in youthful populations. Beyond these initial acknowledgments about the potential early origins of psychopathy, it was Quay (1964) who integrated a preliminary operationalization of psychopathic personality in classifying

antisocial youths into more homogenous categories. Thus, he proposed two distinctive subtypes, which have been later included as diagnostic specifiers for conduct disorder in the third version of the DSM (DSM-III; American Psychiatric Association, 1980): the under-socialized aggressive, and the socialized aggressive groups. The first one, characterized by deficits concerning empathy, attachment and affectivity, lack of remorse, and the presence of risk and violent behaviors, intended to represent the psychopathic group, in an attempt of avoiding the negative and pejorative connotations related with the psychopathic label.

Probably due to the advances reached in the study of adult psychopathy, a new resurgence of research emerged in the 1990s as an effort of further analyzing the developmental origins of psychopathic personality. In an attempt to identify the "fledgling psychopathy", Lynam (1996) suggested that it could be represented in the co-occurrence of conduct problems and ADHD symptoms, which reflect externalizing problems and core deficits in self-regulation (DeLisi, 2016). This specific proposal was mainly focused on the proper identification of life-course persistent offenders among children with early-onset conduct problems, and it was based in a large body of research showing that this co-morbid diagnosis was indeed related with a more severe, aggressive and long-lasting problematic behavior, with these children showing a number of neuropsychological deficits similar to those exhibited by adult psychopaths (Lynam, 1997). Regardless of these findings, Lynam's hypothesis has not been definitely supported as a complete model of "fledgling psychopathy" (e.g., Carroll, Houghton, Durkin, & Hattie, 2009). Whereas some authors showed that conduct disordered and ADHD children are indeed more psychopathic than their peers (DeLisi et al., 2014), others revealed that they are certainly not (Michonski & Sharp, 2010).

From Lynam's proposal it was suggested that there should be something other than severe behavioral features and disturbances in the identification of the "fledgling psychopaths". According to Frick and colleagues (Frick, Bodin, & Barry, 2000; Frick, O'Brien, Wootton, & McBurnett, 1994) callous-unemotional (CU) traits, representing the affective dimension of the construct, would be the core features in defining this specific subgroup of problematic youths, who would be at increased risk for developing the most serious and persistent pattern of conduct

problems. As the authors primarily defended and proved over the past decades, CU traits add incremental utility in identifying a specific subgroup of problematic youths, generally in an early-onset pattern of conduct problems. This group of children would also tend to show a large set of cognitive, emotional, biological and temperamental deficits, as well as specific behavioral and psychosocial characteristics, consistent with the main findings outlined in adult psychopathy literature (see Frick et al., 2014a for an extensive review on the topic). Even considering the emphasis conferred to the affective features, it should be noted that Frick's initial conceptualization of psychopathic personality was directly linked to Hare's work on adult psychopathy through the Psychopathy Checklist Revised (PCL-R; Hare, 1991, 2003) and its interpersonal/affective (Factor 1) and behavioral/antisocial (Factor 2) model. In order to directly test this specific model in diverse populations of children and adolescents, Frick and Hare (2001) developed the Antisocial Process Screening Device (APSD), which included all the elements of the PCL-R, with the exception of those absolutely inappropriate for children (e.g., many short-term marital relationships). In an initial study, Frick et al. (1994) identified two correlated factors similar to those consistently found on the PCL-R: An Impulsivity/conduct problems (I/CP) factor, describing the behavioral features of psychopathy mainly coincident with the deviant lifestyle factor of the PCL-R; and a Callous-unemotional (CU) factor, representing the psychological/personality dimensions from the PCL-R's interpersonal/affective factor. In a second phase of research, conducted in a large community and clinical samples of children, Frick et al. (2000) proposed an alternative three-factor model. Several items from the I/CP dimension formed a separate factor, namely Narcissism, encompassing features related with narcissistic behavior, manipulation and egocentrism. Most of the remaining I/CP items formed the Impulsivity factor, whereas the CU factor remained in this new structure virtually unvaried.

Along with the Psychopathy Checklist Youth Version (PCL:YV; Forth, Kosson, & Hare, 2003), which is a direct adaptation of the PCL-R for adolescents, the APSD is the most used and tested youth psychopathy screening measure. Given their direct link with the PCL-R dominance and conceptualization, some authors suggested that there could be latent risk for having the

child and youth psychopathic construct partially usurped by the measure definition (Skeem, Polascheck, Patrick, & Lilienfeld, 2011). In line with adult conceptualizations, there is an open debate about which features should be considered core or essential to the construct, with the controversy about the role of antisocial behavior within the definition being far from resolved (see, Hare & Neumann, 2010; Skeem & Cooke, 2010a, 2010b, for further debate review). As a point of agreement for divergent stances, the exclusion of explicit criminality or violent behavior from definitions of psychopathic personality is coming to an understanding (Neumann, Hare, & Pardini, 2015; Skeem et al., 2011). Even considering the evidence about the role of psychopathic traits in the absence of problematic behavior (Rowe, 2014), there are still many authors who assert that any model that does not include antisocial behavior as a core feature will be incomplete (DeLisi, 2016; Neuman et al., 2015).Since "many of the features of psychopathy (e.g., manipulation, deception, callousness, irresponsibility, impulsivity) are colored by antisocial or dissocial elements" (Neumann et al., 2015; p. 2), psychopathic personality traits and antisocial behavior would interact in configuring the psychopathic personality profile over the life-span. Given this close association, the presence of psychopathic traits with concurrent conduct problems has been largely equated to the psychopathic-like construct in young populations (Frick et al., 1994). However, the inclusion of items explicitly measuring problematic behavior in youth psychopathic instruments (e.g., the APSD) has been also questioned since it may prompt contamination and prognostic tautology when they are used for predicting serious conduct problems (Skeem & Cooke, 2010a).

Although it is difficult to provide a widely agreed definition of psychopathic personality, there seems to be a general consensus of considering this personality profile as a constellation of affective, interpersonal , and behavioral/lifestyle traits, with the inclusion (or not) of antisocial behavioral deviance being still under debate. This three dimensional structure has been extensively replicated across gender, diverse settings (i.e., community, clinic-referred, and forensic samples), and assessment formats (e.g., see Frick et al., 2014a; Salekin, 2017). However, as Frick and Ray (2015) suggested "[…] The results of these factor analyses and their consistency across development has led to great debate as to whether psychopathy is best

considered as (a) the shared method variance of these multiple facets, (b) a multidimensional composite of these facets, or (c) whether there are certain facets that are "core" to the construct, with others being secondary or less important to defining psychopathy" (p. 2). Some authors have even suggested that the decision of who may be a psychopath is a matter of theoretical preference, depending on the purpose for which the construct is being used (Frick & Ray, 2015). For instance, when the goal is to test the value of psychopathic traits for predicting general conduct problems, the impulsive and irresponsible behavioral traits tend to be the most important (e.g., Leitisco et al., 2008). However, if the purpose is to move forward and try to determine which dimension (or dimensions) is the most useful in identifying distinctive subgroups of problematic children, the affective dimension, represented by CU traits, has been traditionally highlighted as the core one (Frick et al., 2014a). As a matter of fact, a new severity specifier, beyond the age of onset (Moffitt, 1993), has been included in DSM-5 for child and youth conduct disorder (APA, 2013). This specifier, namely "with low prosocial emotions" in order to avoid potential labeling harmful, is largely based on the CU traits conceptualization, and it should be clinically considered when an individual who meets criteria for conduct disorder "display at least two of the following characteristics over at least 12 months and in multiple relationships and settings (APA, 2013; p. 470): Lack of remorse and guilt, Callous-lack of empathy, Unconcerned about performance, Shallow or deficient affect.

Considering the relevance of CU traits for understanding long-standing patterns of antisocial and delinquent behavior, Frick developed the Inventory of Callous-Unemotional traits (ICU; Frick, 2004), a 24-item instrument that specifically taps CU traits on youth samples. Three factors namely Callousness (i.e., a callous attitude towards others expressed by lack of empathy, remorse and guilt), Uncaring (i.e., lack of caring about one's own performance and for the feelings of others), and Unemotional (i.e., lack of emotional expression; Essau, Sasagawa, & Frick, 2006) have been consistently identified in a large set of studies conducted in different samples, contexts and languages (e.g., Ezpeleta, de la Osa, Granero, Penelo, & Domènech, 2013; Fanti, Frick, & Georgiou, 2009; Kimonis et al., 2008). Although some concerns have been raised as regards this factor structure and alternative short forms were also proposed (e.g.,

Hawes et al., 2014), research with the ICU has reinforced the usefulness of CU traits as an identifier of an etiological and clinically distinctive subgroup of problematic children and adolescents (Essau et al., 2006; Fanti et al., 2009; Hawes et al., 2014; López-Romero, Gómez-Fraguela, & Romero, 2015).

Notwithstanding the significant and ever-increasing contribution of the CU line of research, some alternative configurations and assessment methods have been proposed. For instance, Andershed and colleagues, with the aim of accurately identifying the core features of the psychopathic construct developed the Youth Psychopathic Traits Inventory (YPI; Andershed et al., 2002) and the Child Problematic Traits Inventory (CPTI; Colins et al., 2014). Psychopathic personality was defined as a syndrome comprising (a) an arrogant, deceitful and manipulative interpersonal style, involving dishonest, grandiosity, and glibness, (b) a defective emotional experience, involving shallow emotions, callousness, and a pronounced lack of remorse and empathy, and (c), the presence of impulsive, irresponsible and sensation seeking behaviors (Cooke & Michie, 2001). Several studies on preschoolers, school-age children, adolescents and young offenders showed that youths high on all three dimensions have more conduct problems, and have committed more offenses than youths low on all three dimensions (e.g., Andershed, Köhler, Louden, & Hinrichs, 2008; Colins et al., 2014; Frogner, Gibson, Andershed, & Andershed, 2016; Frick et al., 2000; López-Romero, Romero & Luengo, 2012). In the light of these results, Salekin (2016a, 2017) has defended the need of going beyond the CU conceptualization, and including all three affective, interpersonal and behavioral dimensions in construct definition and diagnostic manuals. He argues that there is a risk of having CU traits becoming increasingly synonymous with youth psychopathic personality, leading to have the psychopathic construct largely underrepresented in young populations. Therefore, he also proposes a three-factor model of psychopathic personality with affective (Callous-unemotional; CU), interpersonal (Grandiose-manipulative; GM), and behavioral (Daring-impulsive; DI) traits being equally important, and recommends their inclusion in forthcoming versions of the existing nosological systems (DSM-6 and ICD-11) in order to have "greater resolution for understanding conduct disorder and inspire new effective treatment programs tailored more specifically to the

disorder" (Salekin, 2016b; p.190). To this end, Salekin & Hare (2016) have developed the Proposed Specifiers for Conduct Disorder (PSCD), a 24-item instrument intended to reliably assess CU, GM, DI and conduct problems symptoms in order to improve representation of the psychopathic dimensions, facilitate conduct disorder diagnosis, aid research, and improve clinical practice (Salekin, 2017).

Why psychopathic traits? A comprehensive justification of their study in youth populations

Further justification of studying psychopathic personality at early developmental stages will be underline by examining the most relevant aspects in this field, including the predictive value of the construct for serious conduct problems and juvenile offending, its temporal stability over the life-span, and the presence of distinctive correlates suggesting distinctive etiological mechanisms. Most of these studies have focused on the role of CU traits, whereas others have examined all the affective, interpersonal and behavioral traits relating to the psychopathic personality profile. Overall, they have contributed to reinforce the viability, usefulness and validity of the psychopathic construct in both children and adolescents.

The predictive value of psychopathic traits

Identifying a distinctive pathway to severe conduct problems

The association between psychopathic traits and serious problematic behavior has been supported and enhanced during the past decades through an extensive catalog of studies, researches and theoretical models (see Frick et al., 2014a; Salekin, 2016a; Salekin, 2017 for comprehensive reviews). In a meta-analysis of k = 10 studies comprising 5,731 children, Longman, Hawes, & Kohlhoff (2016) evidenced a significant positive relationship between CU traits and conduct problems severity prior to age five, with consistent results across sex and sample type (at-risk, clinic referred, or community). Despite this close association, even observed at early ages, it should be noted that psychopathic traits are not equivalent with serious conduct problems, particularly those with an early onset (Skeem et al., 2011), with psychopathic personality mainly reflecting the affective, interpersonal and motivational aspects of such

problematic behavior. Thus, as conduct problems and psychopathic traits are independent but related constructs, their study should go beyond the reinforcement of their association. At this regard, different questions emerged as interesting topics for additional reflection: are psychopathic traits really designating a distinctive and meaningful subgroup within the early-onset persistent group of problematic children? Does psychopathic personality have predictive value just when conduct problems are also present? And, in turn, which would be its role when conduct problems have not been manifested?

In a study conducted in an initial sample of 192 Spanish children, aged 6 to 11, four meaningful groups emerged in cluster analyses considering the presence of early conduct problems and psychopathic traits: The Primarily externalizing, with high levels of early-onset conduct problems and low levels of psychopathic traits; the Externalizing-psychopathic, with a specific combination of high conduct problems and psychopathic traits scores; the Primarily psychopathic, a quite promising group since it included children with high levels of psychopathic traits who had not manifested conduct problems yet; and the Non-problematic group (López-Romero et al., 2012). In a follow-up study conducted six years later on 138 adolescents from the initial sample, youths within the Externalizing-psychopathic group were revealed as the most problematic, representing the highest-risk profile as they showed higher levels of externalizing conduct problems, psychopathic traits, ADHD symptomatology, poor academic performance and deficits in social competence (e.g., Ciucci et al., 2014; Kahn et al., 2012; Longman et al., 2015; McMahon et al., 2010). What was even more interesting was that the Primarily psychopathic group, which did not show significant levels of problematic behavior at the onset of the study, showed the second highest rate of behavioral and psychosocial maladjustment in adolescence. From these results, it is quite surprising to see that the presence of early psychopathic traits seems to be more determining, in predictive terms, than the only presence of early-onset of conduct problems, traditionally considered an indicator of later risk (Moffitt, 1993). Another study conducted with the same sample identified, through latent class analyses, a group of children with a stable trajectory of externalizing conduct problems in a six-year period, spanning childhood and adolescence (López-Romero, Romero, & Andershed,

2015). As observed in prior studies (e.g., Byrd, Loeber, & Pardini, 2012), this stable high group showed the highest psychopathic personality scores, as well as high levels of both reactive and proactive aggression and low social competence skills than their counterparts. These findings were replicated when testing differences between developmental groups in a 10- and a 12-year period (López-Romero, Romero, & Villar, 2017). Similar results were also observed by Klingzel et al. (2016), who examined trajectories of psychopathic traits and conduct problems in a sample of 2542 Swedish children, aged 3 to 5 at the onset of the study e followed-up in a two-year period. They found evidence of a subgroup of children with high and stable levels of diverse psychopathic traits, with also the most severe of conduct problems.

In agreement with previous studies, both psychopathic and CU traits are significantly associated with measures of several behavioral and psychosocial problems, a result consistently observed across ages, gender, different methods of assessment, different samples, and several contexts and cultures (Frick et al., 2014a; Salekin, 2016a, 2017). This was particularly true when these psychopathic traits are manifested in combination with a conduct disorder diagnosis or in the presence of serious antisocial behavior, designating the theorized highest-risk problematic profile (e.g., Kahn et al., 2012; Longman et al., 2016; McMahon et al., 2010; Pardini, Stepp, Hipwell, Stouthamer-Loeber, & Loeber, 2012; Rowe et al., 2010). Particularly noteworthy is the fact that these results largely held even after controlling for other measures of conduct problem severity or common comorbid disturbances (e.g., age of onset, impulsivity, number and type of problematic behavior displayed, ADHD; e.g., Byrd et al., 2012; López-Romero, Romero, & Villar, 2014; McMahon et al., 2010). It is unquestionable that the vast majority of studies conducted so far have focused on the role of psychopathic and CU traits in the presence of conduct problems and antisocial behavior. This is probably due to the large tradition in studying psychopathic personality in the context of severe problematic behavior (Rowe, 2014), as well as because high levels of those traits are difficult to identify in large community samples (Fontaine et al., 2011). However, there have been different studies evidencing that there are children showing high psychopathic traits but not displaying serious conduct problems (e.g., Burke, Waldman, & Lahey, 2010; Kumsta, Sonuga-Barke, & Rutter,

2012; López-Romero et al., 2012; Rowe et al., 2010). As was previously observed, this group of children tends to show impaired behavioral and psychosocial adjustment later in development, and is also at risk for other psychiatric disorders. From those studies some authors have considered whether psychopathic traits in general, and CU traits in particular, may have a unique essence, identity, and value irrespective of the presence of a diagnostic of conduct disorder (Rutter, 2012), a proposal also examined by the workgroup developing diagnostic criteria for the International Classification System of Diseases (ICD-11) published by the World Health Organization.

Psychopathy and juvenile offending

When analyzing juvenile offending, the link between psychopathic personality and a range of antisocial behaviors and different dimensions of the delinquent career is out of questioning (Vaughn, Howard, & DeLisi, 2008). From a criminology perspective some authors defend psychopathy as the unified theory of crime (DeLisi, 2016), "given its ability to use a single construct to connect the dots of antisociality over the life span" (DeLisi & Piquero, 2011, p. 292). Prior research has invariably shown that psychopathic personality is an important driver of juveniles delinquency (e.g., Colins & Andershed, 2015; Corrado, McCuish et al., 2015; McCuish, Corrado, Lussier, & Hart, 2014), a link that has been demonstrated in all sorts of studies including different samples, different types of data and diverse methodologies (DeLisi, 2016). The more psychopathic youth tend to show more extensive juvenile delinquency careers with high rates of recidivism (including violent and non-violent), display more hostile aggression, sexual offending, substance use and abuse, and are much more likely to display an early onset of problem behaviors, police contacts, and juvenile court referral (e.g., Cale, Lussier, McCuish, & Corrado, 2015; Colins, Vermeiren, De Bolle, & Broekaert, 2012; Leitisco et al., 2008; Pechorro, Gonçalves, Maroco, Nunes, & Jesus, 2014; Salekin, 2008; Vaughn et al., 2008; Vincent, Vitacco, Grisso, & Corrado, 2003).

In a meta-analysis conducted by Asscher et al. (2011), using 53 studies containing 60 non-overlapping samples and 10,073 participants, the authors found a moderate link between

juvenile psychopathy and delinquency, general recidivism, and violent recidivism, with these associations being moderated by various study and participants characteristics. Psychopathy was equally important for first offending in youths from general populations than for reoffending in delinquent samples; and both delinquent behavior and recidivism could be predicted by psychopathy as early as the transition from middle childhood to adolescence (Asscher et al., 2011).Psychopathic personality has also helped in identifying a high risk-group of juvenile offenders. As an example, Gretton, Hare, and Catchpole (2004) divided a sample of 157 referred boys into low, medium, and high psychopathic groups, based on their PCL:YV scores. The more psychopathic youth were involved in violent, nonviolent and sexual offending, and showed a worse history of abuse, prevalence of substance use, and conduct disorder symptoms. In a follow-up conducted 10-years later, a gradient was observed in terms of recidivism rates, with 97 percent of the high psychopathic committing nonviolent offense, 82 percent committing violent offending, and the 21 percent being involved in sexual crime. From a developmental perspective, psychopathic youths also tend to be involved in serious and long-standing pathways of offending throughout adolescence and into full adulthood, with many different studies showing this specific pattern of results (e.g., Corrado, McCuish et al., 2015; Klingzell et al., 2016; López-Romero et al., 2017; McCuish, Corrado, Hart & DeLisi, 2015; McCuish et al., 2014).

An interesting result repeatedly observed in prior studies is that the association between psychopathic scores and juvenile offending remains significant after controlling for other important criminological covariates (see DeLisi, 2016). For instance, Flexon and Meldrum (2013), reported a close association between psychopathy and violent delinquency at age 15, with a prior history of violence for all the participants classified as psychopaths, even after the addition of other covariates including sex, minority status, poor school bonding, low self-control, peer violent behavior, and ineffective parent. Similarly, McMahon et al. (2010) examined the predictive value of psychopathic personality at seventh grade on self-reported delinquency and serious crime, juvenile and adult arrests, and antisocial personality disorder diagnosis at age 20. The authors observed that early psychopathy predicted all these outcomes,

except serious crime, even controlling for early onset conduct problems, ADHD, oppositional defiant disorder, and conduct disorder. In terms of later recidivism, Salekin (2008) found that youth psychopathic personality measured by multiple instruments was predictive of both general recidivism and violent recidivism. This effect withstood the competing effects of 14 diverse covariates, including age, gender, past delinquent charges, drug use, and delinquent peers among others. Despite this evidence, which reinforces the unique effect of psychopathic traits on a large and diverse set of antisocial outcomes, a recurrent concern is which dimension or dimensions of the psychopathic construct are indeed predictive of antisocial and delinquent behavior. Although many different studies typically identified the behavioral and antisocial factor as the strongest predictor of these reported outcomes (e.g., Flexon & Meldrum, 2013; Greeton et al., 2004; McCuish et al., 2014; Piquero et al., 2012; Salekin, 2008; Vaughn et al., 2008; Vincent et al., 2003), López-Romero, Gómez-Fraguela, & Romero (2015) tested the incremental validity of CU traits above and beyond other relevant factors in subtyping a specific subgroup of severely antisocial youths. Results of logistic regression analyses supported the value of CU traits in distinguishing a high-risk group of individuals, showing more serious and versatile pattern of antisocial behavior, even controlling for other psychopathic factors including impulsiveness, sensation seeking, hostility and low empathy.

Since psychopathy is powerfully related to serious delinquent behavior, offending, and higher rates of recidivism (Salekin, 2008), the relevance of the psychopathic construct to the juvenile justice system is noteworthy. Concerning this, juvenile justice systems should primarily acknowledge that juvenile offenders are a heterogeneous population, with psychopathic traits explaining within-group variation among offenders, particularly the variations between relatively minor offenders and the small high-risk groups of offenders responsible for the vast majority of delinquent acts (Corrado, DeLisi, Hart, & McCuish, 2015). Therefore, it is relevant for practitioners to recognize the core features of the psychopathic construct, and tailor their decisions and interventions accordingly (Reidy et al., 2015). This acknowledgment of juvenile psychopathy from the juvenile justice system is not out of debate. Some scholars have argued that the application of the psychopathic label to certain populations – particularly juvenile

offenders – in counterproductive because of the potential harmful consequences related to the negative connotations of the label (e.g., callous behavior, manipulation, long-standing patterns of serious offending, treatment resistance; Edens, Skeem, Cruise, & Cauffman, 2001). However, different studies found no negative effects associated with psychopathic labels in a juvenile justice context, with different criterion effects (e.g., risk factors inherent to antisocial behavior and psychopathic traits) being stronger for decision-making than the labeling effects (e.g., Murrie, Boccaccini, McCoy, & Cornell, 2007).

Patterns of stability and change

From a developmental perspective, a way to overcome some of the controversies surrounding the study of psychopathic traits in young samples is to examine their temporal stability. Understanding the stability of psychopathic traits across different developmental stages is critical for (a) examining whether these traits are, certainly, normative and temporal in all children; (b), evidencing whether the specific features expressed in childhood and adolescence are representing the same underlying psychopathic personality profile observed in adults; and (c), determining the malleability of these traits over the life-span (Andershed, 2010; Frick, Ray, Thornton, & Khan, 2014b).

As observed in adult populations, existing data revealed moderate to high levels of relative (i.e., rank-order) stability in psychopathic-like traits at different developmental stages and periods including early childhood (Willoughby, Waschbusch, Moore & Propper, 2011), school-aged children (e.g., Barry, Barry, Deming & Locham, 2008; Frick, Kimonis, Dandreaux & Farrel, 2003), adolescence (e.g., Muñoz & Frick, 2007; Pardini & Loeber, 2008), from childhood up to adolescence (e.g., López-Romero et al. 2014; Lynam et al., 2009; Obradović, Pardini, Long & Loeber, 2007), and up to early adulthood (Lynam, Caspi, Moffitt, Loeber, & Stouthamer-Loeber, 2007; see also Andershed, 2010; and Frick et al., 2014b for further review). Since teachers tend to change over these periods, and the contact with children tend to decrease as they grow up, levels of relative stability tend to be higher among parents than

teachers, particularly when large developmental periods are analyzed (e.g., Obradovic et al., 2007). A relevant point is that the levels of stability observed for psychopathic traits are comparable to those observed in general personality traits (e.g., McCrae et al., 2002), as well as in other psychopathological constructs (e.g., aggression, conduct disorder, ADHD; Loeber et al., 2009), adding to the unique entity and developmental validity of the construct (Andershed, 2010). Stability has been also examined in terms of absolute continuity (i.e., mean-level), showing that psychopathic traits tend to remain fairly stable over both short and long intervals (López-Romero et al., 2014; Lynam et al., 2009), although some traits were also suggestive of a pattern of change involving a significant decrease (e.g., Muñoz & Frick, 2007) or increase (e.g., Pardini & Loeber, 2008).

Within-individual change in developmental patterns of psychopathic personality was also identified when examining developmental trajectories from person-centered perspectives, (e.g., Frick et al., 2003; Lynam et al., 2009). Stable low, stable high, increasing and decreasing groups have emerged in most of the studies conducted so far, spanning childhood and adolescence (e.g., Fanti, Colins, Andershed & Sikki, 2017; Fontaine, Rijsdijk, McCrory & Viding, 2010; López-Romero et al., 2014; Pardini & Loeber, 2008; Salihovic, Özdemir, & Kerr, 2014). These studies have also allowed the identification of some relevant predictors of distinctive developmental patterns, such as genetic factors, early conduct problems and hyperactivity, or the quality of parenting; Fontaine et al., 2010; Frick et al., 2003; Pardini et al., 2007), as well as related behavioral, emotional and psychosocial outcomes (e.g., Baardewijk, Vermeiren, Stegge & Doreleijers, 2011; Fanti et al., 2017). As expected, stable-high and increasing patterns were designating a high-risk profile of adolescents who tend to develop more problems in terms of behavioral and psychosocial functioning, including concurrent and prospective conduct problems and delinquent behavior, attention deficit hyperactivity disorder (ADHD) symptoms, both reactive and proactive aggression, low peer support and school connectedness, low parental involvement and high parental distrees, and low social competence, academic performance or executive functioning (e.g., Fanti et al., 2017; López-Romero et al., 2014; Lynam et al., 2009; Shalihovic et al., 2014). These results have been supported even after

controlling for the initial level of conduct problems, reinforcing the predictive value of psychopathic personality, and linking the observed change in psychopathic traits level to later maladjustment (López-Romero et al., 2014). Most of these studies have also examined the joint trajectory of conduct problems and psychopathic traits, specifically CU traits. As expected, both children and adolescents with stable high levels of conduct problems and CU traits are consistently at high risk for individual, behavioral and contextual problems, including high levels of impulsivity, sensation seeking, fearlessness and other psychopathic traits, problematic and aggressive behavior, hyperactivity, peer problems and emotional problems, negative parenting feelings, and adult psychopathy (e.g., Eisenbarth, Demetriou, Kyranides, & Fanti, 2016; Fontaine et al., 2011; Hawes et al., 2017; Klingzell et al., 2016).

Following traditional conceptions defending the immutability of personality disorders, there was a certain reluctance to extend the construct of psychopathy to youths given its implicit message of stability and endurance. However, it has been extensively highlighted that personality stability does not absolutely mean immutability, especially at early developmental stages, showing significant patterns of change particularly when stability is examined at the individual level. Therefore, even considering early psychopathic traits as a potential risk factor for showing adult psychopathy, it should be also noted that a large number of children and adolescents show a significant reduction over time. Alternatively, low levels of psychopathic traits in childhood or adolescence do not absolutely protect for developing adult serious antisocial behavior, or a psychopathy profile (Lynam et al., 2009). From a developmental and constructive perspective, examining the temporal stability of psychopathic traits in depth provides a relevant support for the usefulness and predictive value of the construct in young samples. However, since patterns of change are also observed, the need of analyzing psychopathic traits at an early stage, when they are more unstable and prone to change, has been also reinforced. This may shed new light about the factors that may influence the early development of psychopathic personality. By disentangling these factors influencing patterns of both stability and change, new important targets for intervention could be delineated (Frick et al., 2014b).

Distinctive correlates, biological and environmental influences and potential implications for treatment

As was previously described, one of the arguments in justifying the downward extension of psychopathic personality is that it seems to designate a specific subgroup of children and adolescents at increased risk for showing a pattern of severe and persistent problematic behavior. A key finding supporting the validity of this specific pathway is the presence of distinctive correlates, which may suggest a distinctive etiological mechanism leading to their problematic behavior (see Frick et al., 2014a; Salekin, 2017).

Genetic and biological marker research has shown that severe conduct problems may have distinctive etiologies depending on the presence of general psychopathic traits, and specifically CU traits. It has been observed that genetic effects accounting for variation on CU traits ranged from 42% to 68% (e.g., Larsson, Andershed, & Lichtenstein, 2006). Coming back to the study of stability, it seems that it is largely due to genetic effects (e.g., Fontaine et al., 2010). What is even more relevant is the fact that, beyond the shared genetic effects that affect a large proportion of the correlation between psychopathic traits and conduct problems, there also seem to be unique genetic effects influencing the development of CU traits (e.g., Larsson et al., 2006). In addition, studies investigating the biological correlates to psychopathy have shown some psychophysiological correlates that support the blunted emotional reactivity to certain types of stimuli (e.g., emotionally evocative films, stimuli showing others in pain; e.g., de Wied, van Boxtel, Matthys, & Meeus, 2012). A consistent finding from functional imaging studies was the lower right amygdala activity in response to fearful faces, which is the opposite pattern to that observed in children with conduct problems but normative levels of psychopathic traits (Sebastian et al., 2012). Similarly, disruptions in the amygdala-prefrontal functional connectivity, and abnormal responses within the ventromedial prefrontal cortex have been also revealed.

Prior research has also provided relevant information about the cognitive characteristics of children and adolescents showing psychopathic traits. As occurs with adult psychopathy, youth

psychopathic personality has been related with deficits in the processing of punishment cues (e.g., Muñoz & Modecki, 2013). These youths have also showed problems in evaluating and distinguishing moral transgressions (i.e., actions defined by the consequences to others) versus conventional transgressions (i.e., actions defined by breaking social rules), with fewer references to the well-being of others when making this distinction (e.g., Dolan & Fullam, 2010). Related to this, they tend to show problems on altruistic behavior, being more likely to make decisions that benefit themselves, even if those actions affect and harm others. As expected, negative associations between psychopathic traits and empathy were also observed. However, this negative association is largely observed in affective empathy (i.e., experiencing negative emotions due to the harm of others), whereas cognitive empathy (i.e., the ability to take the perspective of others) does not seem to be affected in this group of youths, particularly after age nine (Dadds et al., 2009). Also expected given the inherent characteristics of the construct, several emotional deficits have been related with the presence of psychopathic traits. Research findings have shown broad consistency in suggesting that children and adolescents with high levels of psychopathic traits are impaired in their responsiveness to and recognition of cues to fear and distress in others. However, this attenuated emotional responsiveness was improved when participants were instructed to attend to the person's eyes (Dadds et al., 2006).

Many efforts have been also focused on documenting the temperamental and personality correlates of child and youth psychopathic personality. The most consistent finding is that psychopathic traits, basically represented by CU traits, are associated with lower levels of fear (e.g., Barker, Oliver, Viding, Salekin, & Maughan, 2011), which in turn could be linked to some cognitive deficits (e.g., impaired punishment sensivity), and with anxiety, especially when controlling for conduct problems (e.g., Pardini et al., 2012). In line with adult research, some authors considered that youth psychopathic personality is better conceptualized as an extreme version of a normal personality profile (e.g., FFM; see Lynam, 2010). Overall, psychopathic personality would be represented by a profile broadly characterized by low agreeableness and conscientiousness. However, there are some points of divergence with adult psychopathy, such as the less consistent pattern of association with neuroticism. It has been explained from the

complex pattern of differential associations of psychopathic traits to the specific facets within neuroticism (e.g., positive association with angry hostility, and negative with anxiety), revealing the presence of potential suppressor effects when the associations with general neuroticism dimension are examined.

Finally, it is unlikely that genetics, biological, temperamental and the associated neural structures completely explain the development of this specific pathway of psychopathic-problematic behavior. Given the relevance of family variables for developmental models of child and youth conduct problems, they were also the most analyzed environmental factors in the study of psychopathic personality. The most consistent finding was that psychopathic traits seem to moderate the association between family factors, largely represented by parenting practices, and conduct problems (e.g., Kroneman, Hipwell, Loeber, Koot, & Pardini, 2011). Even considering the vital role that parenting practices, as well as psychopathic traits, play in the development of severe problematic behavior, their influence does not seem to be additive (Wootton, Frick, Shelton, & Silverthorn, 1997). Specifically, negative parenting practices (i.e., harsh, inconsistent, and coercive discipline) have been traditionally related with child and youth conduct problems, but only in the group of children with low levels of psychopathic traits (Wootton et al., 1997). When high levels of psychopathic traits are manifested, the association between negative parenting and conduct problems tend to disappear, with some studies showing the negative influence of low positive parenting (i.e., low warmth, affection, communication; López-Romero, Romero, & Gómez-Fraguela, 2015; Waller, Gardner, & Hyde, 2013). An interesting result in this field is that when developmental models of psychopathic personality are delineated, dysfunctional parenting practices (i.e., inconsistent and coercive practices in addition to low warmth and acceptance) indeed emerge as relevant (e.g., Barker et al., 2011). However, these pattern of results has not been consistent across studies, revealing the presence of potential bidirectional effects, with the facets of parenting practices influencing the development of psychopathic traits being different from those affected by psychopathic traits (e.g., Hawes, Dadds, Frost, & Hasking, 2011; Waller et al., 2014). Also, psychopathic traits seem to be related with disorganized attachment styles, with children with high levels of CU traits showing

lower levels of physical and verbal affection and less eye contact with mothers in "emotional talk" situations (Dadds et al., 2006).

Taken together, all these results would partially support the presence of distinctive etiological underpinnings for children showing high levels of psychopathic traits. These correlates are consistent with those outlined in adult psychopathy, and are contributing to the validity of the construct in youth populations. Notwithstanding this accumulative evidence about the potential role of psychopathic traits (or CU traits) in designating an etiological distinctive subgroup, the malleability of their problematic behavior could be more compromised than their non-psychopathic counterparts since it seems to be more strongly associated with genetic and biological influences than with environmental factors (i.e., parenting practices). Indeed, many studies have reported that groups of youths high on psychopathic traits show poorer treatment outcomes in different settings (Frick et al., 2014a). Nevertheless, several recent studies have also revealed significant reductions of conduct problems in children high on psychopathic traits through some intensive interventions, which have been tailored to their unique features and needs. Even more encouragingly, it seems that also psychopathic traits, including CU traits, may show malleability and responsivity to some specific interventions, including those that promote positive changes in parenting practices (Wilkinson, Waller, & Viding, 2016).

Summary

Certainly, it is not easy to properly address the construct of juvenile psychopathy whereas the developmental status of youths is fully preserved. Beyond the controversies outlined, such as the negative connotations related to the psychopathic construct, or its applicability to young children and adolescents (Edens et al., 2001), there have been many efforts that have contributed to provide a broad justification of the study of psychopathic personality at early developmental stages. In a field with an ever-increasing interest, many research findings have supported the study of psychopathic personality in children and adolescents by evidencing reliability and coherence in factor structure; construct validity, principally based on the association with other variables in a theoretical coherent manner; predictive value, particularly in identifying a specific subgroup of children and adolescents with a severe and persistent pattern of behavioral and psychosocial maladjustment; the presence of distinctive correlates, suggesting the presence of particular etiological mechanisms; temporal stability and, even more important, the presence of patterns of change, delineating some factors that may be influencing both of them; and the potential distinctive response to treatment and intervention efforts. Given that youths with high levels of conduct problems and psychopathic traits – a small group of problematic youths - are likely to engage in serious and persistent forms of antisocial and criminal behavior, and account for a large proportion of serious offenses, they should be primarily derived to intensive preventive and intervention programs. To maximize results, these programs should be tailored to the unique characteristics that define this specific group (e.g., remorseless, manipulation), and should include those factors that have been proven to be potential mechanisms of change in psychopathic personality (e.g., positive parenting). Although there have been great advances in this field, as well as some promising proposals in terms of intervention with children and adolescents high on psychopathic traits, much more research is definitely required.

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