

Età e criminalità: approcci empirici e teorici dell'esordio criminale in età adulta

Âge et crime : approches empiriques et théoriques de l'engagement criminel à l'âge adulte

Age and crime: Empirical and theoretical approaches of criminal adult onset

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Riassunto

Secondo la curva età-delinquenza, la prevalenza della criminalità presenta un aumento nel periodo di transizione dall'infanzia all'adolescenza, un picco verso la fine dell'adolescenza e un calo durante l'età adulta. In questo contesto, il più alto tasso di desistenza è osservato verso la fine dell'adolescenza e l'inizio dell'età adulta, indipendentemente dal momento dell'insorgenza del comportamento antisociale o criminale. Tuttavia, l'esperienza di ricerca ha evidenziato l'esistenza di delinquenti che sembrano compiere attività criminali per la prima volta durante l'età adulta. La presente analisi si focalizza sui dati empirici relativi alle dimensioni del fenomeno e ai fattori associati al suo verificarsi. Al contempo, si farà particolare riferimento agli approcci teorici in materia nel tentativo d'identificare il processo che ha come punto di partenza la minore età e che, durante il periodo di transizione all'età adulta, porta all'esordio e alla carriera criminale.

Résumé

Selon la courbe âge-délinquance, la prévalence de la criminalité présente une augmentation à la période de transition de l'enfance à l'adolescence, un pic vers la fin de l'adolescence et une baisse lors de l'âge adulte. Dans ce contexte, le taux le plus élevé de désistance du crime est observé vers la fin de l'adolescence et le début de l'âge adulte, quel que soit le moment d'apparition du comportement antisocial ou criminel. Néanmoins, les recherches ont mis en évidence les cas de délinquants qui commettent un crime (pour la première fois) à l'âge adulte. La présente analyse se focalise sur les travaux de recherche portant sur les dimensions du phénomène ainsi que sur les facteurs associés à son apparition. Une référence particulière sera faite aux approches théoriques sur le sujet pour tenter d'identifier le processus qui a comme point de départ la minorité d'âge et qui, pendant la période de transition à l'âge adulte, conduit au comportement criminel et à la carrière criminelle.

Abstract

According to the age-crime curve, prevalence in crime displays an increase over the period from the late childhood to adolescence, a peak towards the end of adolescence and a downward trend afterwards during adulthood. In this context, the highest rate of desistance is observed towards the end of adolescence and the beginning of adulthood regardless of the time of antisocial or criminal onset. However, research experience has highlighted the existence of offenders who appear to engage in crime for the first-time during adulthood. The present analysis focuses on the empirical experience regarding the dimensions of the phenomenon as well as the factors associated with its occurrence. At the same time, particular reference will be made to the theoretical approaches to the phenomenon in an attempt to identify the process whose starting point is placed in minority and, during the period of transition to adulthood, leads to criminal onset and a criminal career.

Key words: age, crime, adult criminal onset, criminal careers

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1. Introduction

The first reference to the relationship between age and crime is attributed to the Belgian mathematician and statistician Quetelet in 1831 who, studying statistical data on crimes against persons and property, found that crime peaked towards the end of adolescence up to mid-twenties (Piquero *et al.*, 2003, p. 360; Zarafonitou, 2004, p. 85). The background for further systematic study of this relationship was laid by the classic research by the Gluecks *Unraveling Juvenile Delinquency* (1950) and the cohort study of Wolfgang, Figlio and Sellin (1972) entitled *Delinquency in a birth cohort* which was a milestone and gave rise to the establishment of the first National Academy of Sciences Panel on Criminal Careers and the development of the so-called criminal career paradigm¹ (Piquero *et al.*, 2007, p. 2). Within the positivist approach of this paradigm, criminal career was defined as the «longitudinal sequence of offenses committed by an offender who has a detectable rate of offending during some period» (Blumstein *et al.*, 1988, p. 2)² and a series of questions were posed for investigation regarding both the onset and continuity of offending behaviour and the desistance and termination of criminal activity³. The criminal career paradigm created the necessary background for the development of the so-called

Developmental/Life Course Criminology⁴ in which the risk factors⁵, the protective factors⁶ and the life events⁷, that have an impact on the configuration of the various dimensions⁸ during a criminal career at different age stages with an emphasis on the onset, continuation and desistance⁹ from crime, are being examined.

On this basis, a range of dynamic/developmental theories¹⁰ has been deployed concerning the phenomenon of criminal careers (Farrington, 2003; Thornberry, Krohn 2001; Moffitt, 1993; Sampson, Laub, 1993; Le Blanc, 1997). According to a well-established standpoint of Developmental Criminology as it has been elaborated according to the research experience so far regarding the study of the relationship between age and crime, it has been stated that the criminal onset is placed between the ages of 8 and 14, while the age at which desistance from crime is observed, is placed between 20 and 29

⁴ Farrington (2003, p. 221) states: «Developmental and Life Course Criminology is especially concerned with documenting and explaining within-individual changes in offending throughout life. It is a further elaboration of the criminal career paradigm that became very prominent in the 1980s by adding in the study of risk factors and life events (...) To some extent DLC theories were a reaction to what was perceived as a largely atheoretical criminal career paradigm».

⁵ By risk factor is meant «a variable that predicts a high probability of offending» (Zara, Farrington, 2016, p. 53; Morizot, Kazemian, 2015).

⁶ Protective factors are defined as those factors which «reduce the likelihood of problem behavior either directly or by mediating or moderating the effect of exposure to risk factors» (Arthur *et al.* 2002, p. 576; Morizot, Kazemian, 2015).

⁷ On life events or life circumstances see Zarafonitou, 2004, p. 95 and Laub, Sampson, 2001. Regarding the effect of life circumstances (e.g. romantic relationships, marriage, employment, parenthood) on the development of criminal trajectories during the transition time period from adolescence to early adulthood see Horney *et al.*, 2012.

⁸ The several dimensions of criminal careers refer to elements such as: prevalence, offending frequency, specialization, escalation, co-offending, persistence/continuity, adult-onset etc. (Piquero *et al.*, 2012, p. 14; Piquero *et al.*, 2007).

⁹ For the definition of desistance, the methodological issues that arise when measuring it and the research and theoretical approaches see Laub, Sampson, 2001.

¹⁰ As Piquero *et al.* (2007, p. 2) mention, developmental and life course theories were developed in order to provide a theoretical foundation for the criminal career paradigm.

¹ The criminal career paradigm was particularly developed in the 1980s, focusing on the study of the individual dimensions of criminal careers. However, as Farrington states, it was characterised as a paradigm without a theoretical foundation around issues relating to the development of offending behaviour over time, the role of risk factors and life events (Farrington, 2003, p. 222).

² According to Farrington, the paradigm approach of criminal careers allows for a quantitative measurement of the phenomenon through statistical methods of analysis (Farrington, 1987, p. 59 as cited in Ulmer, Spenser, 1999, p. 97).

³ In this light, the individual dimensions of a criminal career seem to be related to different causal risk factors as Ulmer and Spencer (1999, p. 97), typically mention. See also Blumstein, *et al.*, 1988, p. 4.

years of age¹¹. Meanwhile, prevalence¹² appears to undergo a peak near the late adolescence, specifically during the 15-19 age period (Piquero *et al.*, 2007, p. 3). In general, according to international research experience, prevalence in criminal activity¹³ shows an increase over the period from the late childhood to adolescence, a peak towards the end of adolescence and a downward trend afterwards during adulthood. The above empirical finding captures what is called the negative age-crime curve (Loeber, Farrington, 2012, p. 5; Piquero *et al.*, 2007, p. 7; Laub, Sampson, 2003). The negative age-crime curve has been observed to hold regardless of the historical period in which the criminal phenomenon is examined, the composition of the sample under scrutiny, the type of data source and the type of antisocial or criminal behaviour investigated (DeLisi, 2015, p. 51). On this basis, Hirschi and Gottfredson (1983) argued for a relationship that is

¹¹With the exception of so-called chronic offenders. Chronic offenders (life-course persistence offenders according to Moffitt's classification) are a small group of offenders, representing 5-8 % of the population, perpetrating a high percentage of crimes committed and is involved in an increased number of anti-social and violent acts. However, within the context of a respective research design, operational definitions may vary. Zarafonitou (2004, p. 89) mentions the term 'professional' criminals who «commit a consistently large number of offenses over a much longer period of time and therefore manifest a behaviour 'contrary to the overall negative age/crime relationship», (Our translation). See in this regard Zara, Farrington, 2016, p. 32,49 & 58-64; Moffitt, 1993; DeLisi *et al.*, 2014.

¹²As Rhodes (1989, p. 3) states prevalence «is a population statistic showing the percentage of people who commit at least one crime during a stipulated period».

¹³Prevalence should be distinguished from the term frequency which reflects an average annual (individual) crime rate denoted by the Greek letter λ (lambda) (Blumstein *et al.*, 1988, p. 3). In this context, concern has been raised as to whether the curve depicting the relationship between age and crime at an aggregate level reflects the function of prevalence or frequency and, by extension, whether it is possible to draw firm conclusions at the individual level on the basis of data that are referred to an aggregate level. Piquero *et al.* (2007, p. 7-8) state: «Is the peak in the age/crime curve a function of active offenders committing more crime, or is it a function of more individuals actively offending during those peak years and fewer during the later years? (...) to what extent is the slowing of offending past the peak age a function of deceleration in continued criminal activity or stopping by some people?». For the above issue see also Gottfredson, Hirschi, 1986.

fixed and uncorrelated with other demographic factors. However, proponents of the criminal career paradigm were the first to challenge this view (DeLisi, 2015, p. 52) while Farrington (1986), criticising the above fixed and unchanging relationship hypothesis, argued that the age-crime curve may vary at the individual level compared to the aggregate level. Indeed, research evidence has demonstrated that while at the aggregate level the age-crime curve remains the same regardless of the historical study period and data source, however, at the individual level the pattern of criminal activity appears to vary, with a number of factors co-shaping this variation (DeLisi, 2015, p. 59)¹⁴.

In this respect, it should be noted that early antisocial or criminal onset is a predictor of a long criminal course and of the commission of many crimes. Moreover, it is generally accepted that there is a 'continuity' of antisocial and delinquent behaviour over time from childhood to adolescence and then into adulthood (Farrington, 2003, p. 223; Piquero *et al.*, 2007, p. 3). However, it should be noted that the majority of juveniles who adopt antisocial behaviour¹⁵ in adolescence do not display the same behaviour in adulthood (Robins, 1978) and the association between early antisocial or criminal onset and the engagement in antisocial behaviour in adulthood appears to arise on the basis of a rather retrospective processing of data than future prediction (Zara, Farrington, 2016, p. 53 & 58). The above finding is consistent with the fact that the highest rate of desistance is observed

¹⁴It should be noted that the age-crime curve may also vary according to the type of criminal offence (e.g. the curve for crimes against property seems to peak at an earlier time compared to the curve for violent crimes), gender (the curve seems to peak earlier for males than for females) and the type of data (the curve for criminal offences reported on the basis of self-reported data seems to peak earlier than the curve formed on the basis of data from official records) (Loeber *et al.*, 2012, p. 317).

¹⁵Delinquent behaviour is a manifestation of a broader syndrome of anti-social behaviour (Farrington, 2003, p. 224).

towards the end of adolescence and the beginning of adulthood regardless of the time of antisocial or criminal onset (Loeber, Farrington, 2012, p. 5).

As already mentioned, the age-crime curve places the onset of delinquent behaviour during the period of minority, however, research has highlighted the existence of offenders who appear to engage in delinquency for the first-time during adulthood (Piquero *et al.*, 2012, p. 25). Therefore, it becomes of particular interest to empirically investigate both the dimensions of the phenomenon and those factors that function protectively during minority as well as those that increase the likelihood for someone to engage in delinquent behavior during the transition from minority to adulthood (Thornberry *et al.*, 2012, p. 48). Research experience to date, however, around the existence of this particular pattern of criminal trajectory remains limited and, according to some researchers, this phenomenon is extremely rare (Moffitt *et al.*, 2001). The absence of research data and the perception of rarity of the phenomenon seems to have equally affected any attempts to theorise it as scientific interest around the development of an explanatory framework remains limited (Thornberry *et al.*, 2012). In this context, the present analysis will report on the available empirical evidence around the phenomenon focusing on both the issue of its dimensions and the factors associated with its occurrence. At the same time, particular reference will be made to the theoretical approaches to the phenomenon in an attempt to identify that evolutionary process which has as its starting point minority and, during the period of transition to adulthood, leads to the onset of delinquency and a criminal career.

2. Research experience on the dimensions and risk factors of adult criminal onset

Gomez-Smith and Piquero (2005, p. 515) mention that the established argument that the criminal onset is placed in the juvenile period is due to the high prevalence of adolescent offenders in crime as well as to the aggregate level of the age-crime curve, resulting in the prevailing view that the frequency in which the criminal onset is observed in adulthood is relatively rare or negligible¹⁶. However, in 1986 Blumstein and his colleagues argued that 4-5 out of 10 adult offenders have no history of involvement in delinquency during the juvenile years. In particular, it was found that 40-50% of adult offenders had no history of contact with police during minority (Piquero *et al.*, 2012, p. 25). Similar high rates appear to occur in the female population of adult offenders as demonstrated by Swedish longitudinal empirical studies (Eggleston, Laub, 2002, p. 614). For example, in a representative sample of the Swedish population (709 males and 680 females) which was surveyed from age 10 to age 30, it was found that 54.2% of adult male offenders had engaged in criminal behaviour for the first-time during adulthood while the corresponding rate for females was as high as 79.3% (Magnusson, 1988 as cited in Eggleston, Laub, 2002, p. 617). In the same study it was found that 1 in 4 males in the sample became involved in the criminal justice system by receiving a criminal conviction for the first time after the age of 20. In fact, it is worth mentioning that for the females in the sample the peak age point for the criminal onset was placed at a later time compared to males, namely in the age period 21-23 years of age¹⁷ (Stattin *et al.*, 1989, p. 373, 379).

¹⁶ Related to this is Moffitt's consistent claim that offenders rarely start their criminal activity as adults. Cf. Moffitt, 1993.

¹⁷ For the males in the sample, the peak age was 15-17 years.

Wolfgang et al. (1987) in a follow-up research on the sample of the cohort study *Delinquency in a Birth Cohort* concluded that 24.2% of all individuals in the sample who had committed a criminal offence and had been arrested, were individuals who had begun their criminal activity in adulthood with no previous history of involvement in committing a criminal offence during minority. In the same vein, Eggleston and Laub (2002) concluded that the criminal onset in adulthood is not a rare phenomenon (Koppen, 2018, p. 93).

At this point it should be emphasised that longitudinal researches in which the existence of adult offenders, who do not have a history of criminal behaviour during their juvenile years, has been established, mainly use data from the investigation of the records of police arrests or criminal convictions (Eggleston, Laub, 2002, p. 603; Piquero *et al.*, 2012, p. 27; Kirk 2006). Under this foundation, it is argued that the phenomenon of criminal onset in adulthood is an outcome of the use of official data reflecting the reporting process by the criminal justice system (McGee, Farrington, 2010, p. 530). The above statement raises the reasonable question as to whether persons who are recorded as initiating their criminal activity in adulthood may have exhibited involvement in criminality during their minority for which, however, they never came into contact with the criminal justice system (Piquero *et al.*, 2012, p. 27). In the context of such a conclusion, the different per research design conceptualisation and operationalisation of 'adult onset' with reference to the age at which this onset¹⁸ is placed, should be also taken into account.

Motivated by the above reasonable concern, McGee and Farrington (2010) raised the question of the

¹⁸ Most relevant research places adult onset at 18 years of age (McGee, Farrington, 2010, p. 533).

reasons why an individual may engage in criminal behaviour while underage without being noticed by the institutions of the criminal justice system. In the framework of the Longitudinal Prospective Study Cambridge Study in Delinquent Development¹⁹ the above research question was investigated. In this study, the time point for the criminal onset in adulthood was set at 21 years of age²⁰. Of the total sample (404 males) 167 males had been involved in committing crimes up to the age of 50. Of the total of 167 individuals, only 23% (38 individuals) began criminal activity at the age of 21 or older based on criminal conviction history. As McGee and Farrington report the percentage identified within the survey is lower than the corresponding percentage which has been identified within other research and this could be due to the age criterion of 21 years and above as most of the surveys adopt a lower age threshold (18 years) for timing the criminal onset in adulthood. As they point out, «as men age, there is less likelihood of being detected by the criminal justice system for a first offense and first-time offenders decrease dramatically after age 20 and are very sparse from age 36 onwards» (McGee, Farrington, 2010, p. 537). In order to answer the question of whether these offenders started offending in adulthood or earlier without ever being detected by the criminal justice system,

¹⁹ For details of this research see Zara, Farrington, 2016 and Farrington et al., 2013. This is a longitudinal prospective study of a sample of 411 males living in a working-class area of South London with a starting point of 1961-1962. The majority of the males were born in 1953. At the age of 18 years the sample participation rate in the interviews was close to 95%, at the age of 32 years 94% and at the age of 48 years 93%. Of the total of 404 individuals (final sample), 167 were involved in committing a crime at some point in their lives. Taking criminal conviction as a measure, offending appears to peak at 17 years of age and of the total number of offenders, 70.7% were recidivists (118 people).

²⁰ In England, the categorisation is as follows: juvenile offenders aged 10-17 years, young adults aged 18-20 years and adults aged 21 years and older who are subject to more severe criminal treatment. Cf. McGee, Farrington, 2010, p. 534.

possible offending before the age of 21 was investigated on the grounds of self-reported data. According to the survey data, a rate of 30% of individuals (11 individuals) who had initiated engagement in offending activity from 21 years onwards reported high levels of offending involvement in minority (McGee, Farrington, 2010, p. 540). Along the same lines, the mean for self-reported offending in minority was examined between those who first became involved in offending (based on criminal conviction history) from age 21 onwards and those who were already involved in offending in minority (based on criminal conviction history). Although those who had already engaged in offending as juveniles had a higher mean, a group of 7 persons with criminal onset from the age of 21 onwards was identified which had a higher mean at the age of 14 and a corresponding group of 5 persons with a higher mean at the age of 18²¹ (McGee, Farrington, 2010, p. 541). In this case, it was argued that these individuals should not be classified as offenders who first became involved in crime during adulthood as based on the frequency of their involvement in offending they should have already been flagged by the criminal justice system as early minority. After all, the higher the frequency of involvement in criminal offences, the greater the likelihood of being identified by the criminal justice system. McGee and Farrington concluded that the inclusion of such a group of people in the category of those who start offending from the age of 21 years onwards is an inaccurate result of the official recording of crime by the criminal justice system (criminal conviction history). In line with the above, it was found that both individuals who started their involvement in delinquency from the age of 21

²¹ Two out of 5 individuals also had a higher mean at the age of 14.

years onwards and those who had already been involved in the criminal justice system during their minority reported that they had committed criminal acts such as assault, vandalism and drug use which have low rates of detection and flagging by the criminal justice system. However, those who had been involved in the criminal justice system during their minority years were equally likely to commit burglary and vehicle theft and therefore had an increased likelihood of arrest (McGee, Farrington, 2010, p. 545).

As part of a study of the factors associated with being involved in criminal acts in adulthood, Eggleston and Laub (2002) attempted to answer the question of whether there is a differentiation between adult offenders who become involved in offending from the age of 18 onwards and those who have already been involved during minority. They evaluated data from two cohorts from 1942 and 1949 respectively (Racine birth cohorts)²² in which 889 males and females initially participated and the final sample consisted of 732 participants (51% males and 49% females)²³. The sample's contact with the police was investigated through data collection for the period 1948-1976²⁴ and it was found that 61.2% (448) had no contact with the police. Specifically, 14.3% had a history of police contacts only during the period of minority and specifically during the age period 6-17 years, a percentage of 11.3% had a history of police contacts only during the period of adulthood (18 years and above) and a percentage of 13.1% had had contact with the police both during minority and adulthood.

²² See also Shannon, 1994.

²³ The follow-up period of the sample covered a time range from the age of 6 to the age of 25 years (the 1949 cohort) and 32 years (the 1942 cohort).

²⁴ The contact with the police did not concern traffic violations and low-level offences which according to the law are only committed by minors (status offences) and did not necessarily lead to arrest.

Finally, it is worth mentioning that among all adult offenders, those who first came into contact with the police after the age of 18 constituted a percentage of 46.4% (Eggleston, Laub, 2002, p. 609-610). In the context of exploring a range of factors such as e.g. demographic characteristics, family variables, variables referring to the adolescent period and related to e.g. school, peer friends and drug use, but also variables referring to adulthood and related to e.g. friendships with other offenders and drug use, it was found that between individuals who started offending from the age of 18 onwards and those who were involved in offending both in minority and in adulthood there are many similarities in the influence of these variables on the occurrence of offending behaviour in adulthood (Eggleston, Laub, 2002, p. 611-612; Piquero *et al.*, 2012, p. 26). On this basis, Eggleston and Laub (2002, p. 612-613) conclude that «the predictors of adult offending are similar for all adult offenders independent of past delinquency». They even point out that this conclusion could support the view that the factors associated with the criminal onset in adulthood are similar to the factors associated with the continuation of criminal behaviour from minority to adulthood. In the same vein, Gomez-Smith and Piquero (2005) did not identify variables that differentiate offenders who initiate offending in adulthood versus adult offenders who were already committing criminal offences during the period of minority (Piquero *et al.*, 2012, p. 27). Specifically, they studied a sample of African American men and women drawn from the Philadelphia Perinatal Birth Cohort Project²⁵ to examine participation as captured in the officially recorded offending starting point at the age of 18 and older and its associated factors. In the framework of this survey, those who

²⁵ 987 people were studied up to their mid-fourth decade of life.

had no recorded police contact as minors but had a history of at least 1 criminal conviction as adults were defined as offenders with a criminal onset in adulthood²⁶, those who had at least 1 police contact during minority but no history of criminal convictions in adulthood were defined as offenders who desisted while those who had a history of at least 1 police contact during minority and a criminal conviction in adulthood were defined as offenders who persisted (Gomez-Smith, Piquero, 2005, p. 521). According to the research data, 689 persons had never been involved in committing a criminal act, 78 persons were identified as offenders who initiated their criminal onset after the age of 18, 144 persons desisted crime and 76 persons were identified as persistent offenders. Thus, the percentage of offenders who had no history of involvement in the criminal justice system before the age of 18 was estimated to be 7.9%, with a higher percentage of men than women, contrary to the results of previous studies where the opposite was found (Kratzer, Hodgins, 1999 as cited in Smith-Gomez, Piquero, 2005, p. 517). At the same time, it was established that individuals whose mothers smoked during pregnancy were more likely to engage in criminal behaviour in adulthood. Finally, those persons who scored higher on a specific test of cognitive ability (California Achievement Test)²⁷ were less likely to engage in delinquent behaviour in adulthood. This finding supports the view that cognitive abilities may act as protective factors²⁸.

In the context of the longitudinal prospective research Cambridge Study in Delinquent

²⁶ In the framework of the research design the starting point of adulthood is after age 18.

²⁷ The test was designed to measure, assess, and analyse school performance by focusing on verbal and numerical ability (Gomez-Smith, Piquero, 2005, p. 520).

²⁸ For the meaning of 'risk and protective factors' and related terms see above.

Development and in respect of risk factors for the criminal onset during or after adulthood, Zara and Farrington (2010, p. 258) point out the need to investigate both risk and protective factors during minority and how these factors may interact. They, therefore, attempted to examine the role of certain psychological characteristics in the criminal onset in adulthood on the assumption that these characteristics function protectively during minority but such protective character seems to disappear when the person passes into adulthood. Their research data showed that in the case of the criminal onset from the age of 21 and above²⁹, there are individual factors of a psychological nature which are identified during minority and act as a temporary protective factor during this period, but which take on the character of a risk factor when the person reaches adulthood. Individuals whose starting point for their criminal behaviour was the age of 21 resembled more to non-offenders in the period before the age of 21 and at the age of 32 these individuals resembled more to offenders who had been involved in committing offences since they were underage. The strongest predictors were recorded as a history of nervousness and neuroticism³⁰, which seem to be protective during minority but seem to lose their protective effect in adulthood. Such characteristics may protect the

juvenile from associating with other offenders of the same age and from risky actions and activities. It is argued, however, that in such a situation the individual is not shielded against the challenges and demands of adult roles (Zara, Farrington, 2010, p. 270).

3. Theoretical approaches on adult criminal onset

The debate around the issue of developing an adequate explanatory framework regarding the criminal onset in adulthood reflects two different perspectives regarding the acceptance or non-acceptance of the existence of the phenomenon under consideration (McGee, Farrington, 2010, p. 530). In this context, static theories such as Gottfredson & Hirschi's (1990) classical theory of the level of self-control that is fixed early in childhood³¹ and remains unchanged over time without being influenced by life events, state that the criminal onset in adulthood is a particularly rare phenomenon³². Gottfredson and Hirschi argue that individuals whose criminal onset is placed in adulthood demonstrate a high level of self-control in adolescence which works protectively and which will lead them very quickly to desistance from crime (Thornberry et al., 2012, p. 53). In the same vein, Moffitt (1993), within the dual taxonomy which she developed, incorporating into it³³ evidence pointing to both the concept of stability and the concept of change³⁴, argued that involvement in delinquency

²⁹ In this context, and in contrast to earlier publications relating to the sample of participants in the longitudinal prospective study Cambridge Study in Delinquent Development, the starting point of criminal behaviour for those initiating in adulthood is placed at 21 years and beyond, based on both criminal convictions and self-reported data. On the importance of combining data sources Zara and Farrington mention: «we have previously investigated the characteristics of late-onset offenders based only on convictions, but this might produce misleading results, and errors in allocating a person to a specific onset group can be reduced by combining self-reported delinquency and official data» (Zara, Farrington, 2010, p. 259; Zara, Farrington, 2009).

³⁰ Neuroticism is considered as being a personality trait that increases the likelihood for someone to develop phobic and stressful disorders (Chountoumadi, Pateraki, 2008, p. 379).

³¹ The low level of self-control appears to be associated with inadequate parental child-rearing practices during the period of minority (Gottfredson, Hirschi, 1990).

³² According to another view, this phenomenon does not exist as it is a methodological construction (Zara, Farrington, 2016, p.35; McGee, Farrington, 2010, p. 530).

³³ Regarding Moffitt's typological theory which falls within the field of Developmental Criminology see Moffitt, 1993, 2006 and Farrington, 2003.

³⁴ Ulmer and Spencer (1999, p. 102) state that: «Developmental and life course perspectives offer useful

during adulthood is extremely rare (Moffitt et al., 2001 as cited in Thornberry et al., 2012, p. 53). In contrast, according to Laub and Sampson's (2003) life-course model which focuses on the role of social bonds³⁵ in the context of an informal social control, the criminal onset in adulthood is a phenomenon that is considered to be expected and the explanatory framework around it is based on the weakening of the individual's social bonds during adulthood as reflected through life events³⁶. In the framework of Developmental/Life-course Criminology it is of particular interest the theory of Thornberry and Krohn (2001) in regard to the explanation of the phenomenon of involvement in the criminal onset after the period of minority. In particular, they ascribe the late criminal onset to factors such as low IQ, low educational level and reduced social skills, referring to the importance of so-called human capital. These deficits are already observed during juvenile years, however, the individual's strong social bonds with family and school seem to play a protective role during this period. When the individual is in the transition phase of adulthood, however, he or she is no longer in the safe and supporting environment in which he or she has been living and is confronted with the challenges and demands of adopting adult roles. In such a pressured background, friendly interactions with other offenders and the use of alcohol and drugs act as reinforcers increasing the chances of

offending behaviour (Thornberry *et al.*, 2012, p. 60; McGee, Farrington, 2010, p. 531; Farrington, 2003, p. 244). Another theoretical approach is the one which was developed within social psychological theories³⁷ with an emphasis on emotion, cognitive processes and the formation of personal identity based on the individual's social experience and interaction with the environment³⁸. Thornberry et al. (2012) give the typical example of a young person from low socio-economic backgrounds who has expectations of a successful professional career which is ultimately not achieved due to lack of available legal means. Thus, failure to achieve the goal during adulthood generates feelings of frustration and anger which can lead to a change of thought and attitude, encouraging involvement in illegal activities. They state in this regard: «The psychological realm is important because these attitudes and emotions are important mediators-it is the individual's reaction to accumulated structural disadvantage that is the key» (Thornberry et al., 2012, p. 66). On this basis, and given the multifactorial nature of the criminal phenomenon, it is important to take into consideration many different factors, including cognitive factors, which, however, are not so often highlighted in the study of crime (Maruna, 2001).

4. Conclusion

Based on the above research evidence, the need for both further empirical investigation of the phenomenon and the development of an adequate theoretical framework to explain it is indicated. The

theoretical extensions of criminal career research. These perspectives take note of both the stability (persistence) and dynamic changes (onset and desistance) in offending during a person's life».

³⁵ The development of strong social bonds depends on the individual's attachment to socialising institutions such as family and school, without ignoring the importance of friendships and parental nurturing practices (Sampson, Laub, 1993; Farrington, 2003, p. 241).

³⁶ Sampson and Laub pay particular attention to the impact of life events during the transition period from minority to adulthood such as marital life, family formation, job acquisition etc. (McGee, Farrington, 2010, p. 531; Farrington, 2003, p. 241; Thornberry et al., 2012).

³⁷ See for example Mead's theory on symbolic interaction (Mead, 1925, 1934).

³⁸ The importance of cognitive factors and cognitive transformation has been stressed especially in the study of desistance from crime (Maruna, 2001; Giordano *et al.* 2002; Kazemian, 2015).

methodological limitations of the research designs so far, mainly regarding the type of research data (data from official records), limit to a certain extent the value of the available research outcomes. Therefore, the use of self-reported data is considered of paramount importance in order to illustrate the true dimensions of the phenomenon. Indeed, the comparison of self-reported data and official data in the context of studying the criminal onset during adulthood is a relatively recent area of research interest. In addition, based on the empirical studies available so far, there seems to be a lack of investigation of risk factors that are closer to the phenomenon under consideration, with research interest focusing on both risk and protective factors that are identified during minority. In this context, the formulation of an adequate explanatory framework of the phenomenon presents, as can be expected, several difficulties. However, it is clear that a true representation of the phenomenon based on a combination of data sources and the identification of both the associated risk and protective factors will provide a solid basis for the development of more effective prevention and response policies.

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