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Unsuccessful Life Style in Middle-Aged Official and Self-Reported Types of Offenders

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ABSTRACT

Purpose: This research investigates how types of convicted offenders (C-types: life-course-persistent; adolescence-limited; late-onset; non-offenders) compare with the corresponding types of self-reported offenders (SR-types: SR-LCP; SR-AL; SR-LO; SR-NO) in life adjustment.

Methods: In the Cambridge Study in Delinquent Development, 411 London males have been followed up from age 8 to age 48 in face-to-face interviews, and from age 8 to 61 in criminal records. This article focuses on the unsuccessful life style scale based on interviews at ages 32 and 48.

Results: Both convicted and self-reported offenders manifested a more unsuccessful life style in comparison with C-NO and SR-NO. Physical fights, and high alcohol and drug abuse featured in the lives of C-LCP and C-AL at age 32, and in the lives of all C-type offenders at age 48. SR-LCP and SR-AL reported higher levels of alcohol and drug use in comparison with SR-NO, while SR-LO reported a higher level of drug use.

Conclusions: Criminality is one aspect, and not the most important one, that impinges upon the quality of life. Other dimensions contribute to altering life-adjustment. Addressing these issues might promote an improvement in the quality of life in adult offenders, and foster criminal desistance.

Key words: criminal careers; official offenders; self-reported offenders; unsuccessful life style; adult life adjustment.

Introduction

This paper builds on an empirical question: do types of official offenders (C-types) differ in adult adjustment and life style from types of self-reported offenders (SR-types)?

Findings from various strands of research in psychological criminology and criminal careers, in particular, suggest that life adversity leads to adult vulnerability for a wide variety of both social problems (Piquero, Farrington, Nagin, & Moffitt, 2010), family disruption (Theobald, Farrington, & Piquero, 2013), psychological difficulties (Zara & Farrington, 2013), personality disorders (Farrington, 1991), health adversities (Odgers, Caspi, Broadbent, Dickson, Hancox, Harrington, et al., 2006) and chronic disability (Shepherd, Shepherd, Newcombe, & Farrington, 2009). These findings have contributed to the rediscovery of the importance of life experiences more generally, and to the need for a broad developmental perspective when approaching the aftermath of a life of crime.

Clinical criminology research has been consistent in showing the detrimental impact that offending has upon the life of career offenders much beyond the social effect of a criminal record. Family life is likely to be affected: intimate relationships are likely to be disrupted (Theobald, Farrington, Coid, & Piquero, 2016a) and the attachment to children damaged (Theobald, Farrington, & Piquero, 2019). Employment opportunities become limited (Roberts, Harms, Caspi, & Moffitt, 2007). Mental health is likely to be compromised especially when the high consumption of alcohol and drugs accompany a very extreme, disordered, and violent life style (Wiesner, Kim, & Capaldi, 2005).

While few studies have looked in detail at the effect of offending in adult life (Farrington, 2003; Farrington, & Coid, 2003; Moffitt, Caspi, Harrington, & Milne, 2002; Werner & Smith, 2001), no research has ever been carried out to understand similarities and differences between convicted and self-reported offenders in adult adjustment and unsuccessful life style. West and Farrington (1977) pioneered research in developmental

criminology, and their findings, regarding criminality as only one aspect of a larger constellation of antisocial features, have inspired much research ever since. By analysing the data from what would become one of the most important prospective longitudinal studies in the world, the Cambridge Study in Delinquent Development (CSDD) (see later for its description), they concluded that, regarding the boys who were involved in the study at age 18: "whatever aspect of life was under consideration, virtually every comparison suggested that the convicted delinquents were more deviant" (West & Farrington, 1977, p. 158).

The follow-ups, when these boys were adolescents (at age 14-16) and then young adults (at age 18), and adults (at ages 32 and 48), suggested that significant differences were present in adulthood between official offenders and non-offenders, and more so when persistent offenders were compared with other official offenders and non-offenders (Jennings, Rocque, Fox, Piquero, & Farrington, 2016). Offenders were less socially restrained, more hedonistic, more impulsive, more reckless and distinctly more aggressive and prone to physical violence than their non-offender counterparts (West & Farrington, 1977). It was shown that they more likely left school without any qualification, avoided educational pursuits, and did not attend evening classes or read books. While offenders earned more from highly paid unskilled jobs with poor future prospects, they spent more, saved less, and gambled a lot; they were more frequently out of work and in debt. "Although the contrasts were less extreme, the same adverse features appeared [...] among those whose first criminal conviction did not occur until after they had passed beyond the juvenile age range. This evidence, suggesting that criminogenic factors may not always produce their full effect until age seventeen to twenty, was an important, if somewhat depressing, discovery" (West & Farrington, 1977, p. 157).

More recent evidence from the CSDD suggests that the proportion of men leading a successful life style increased, from 78 per cent at age 32 to 88 per cent at age 48, when men

detached themselves from offending (Farrington, Coid, Harnett, Jolliffe, Soteriou, Turner, & West, 2006). Men who had desisted from offending before age 21 were very similar to the unconvicted men in their life style at age 48, but the persistent offenders were the least successful. These findings emphasized two important aspects that other studies in criminal careers have also supported, and they merit scrutiny. First, the assumption that 'once at risk always at risk' is not always valid, and especially it does not apply to every offender, and in every circumstance. Offenders can change, and the earlier they desist from offending, the greater their possibility of becoming like non-offenders. This has been shown both with general offenders (Farrington, Gallagher, Morley, St. Ledger, & West, 1988b; Farrington, 2019b; Kazemian, 2007; Liu & Bushway, 2019) and with sex offenders (Hanson, Harris, Letourneau, Hulmus, & Thornton, 2018; Harris, 2014). Second, the more persistence in offending, the less likely are the offenders to desist from offending. A persistent offender has greater chances of being involved in accidents, having disruption of family ties and unstable relationships, experiencing unemployment, and enduring bad health or violent death (Piquero, Shepherd, Shepherd, & Farrington, 2011). Hence, by taking into account these aspects, the only possible way of studying adult adjustment is longitudinally. Göppinger (1987) advocated that it was relevant for criminology as a science to develop basic criminological knowledge of how offenders actually live, in order to be able to think proactively in terms of prevention and intervention. This requires a prospective approach, as employed in the CSDD, as "a prospective cohort study, it is, in a certain sense, the touchstone for the factual soundness of the methodological objections to retrospective comparative studies" (Göppinger, 1987, p. 26).

Farrington and colleagues (2006) recognize adult adjustment as a quite complex dimension, which is made up of many different aspects that are pervasive and involve different areas of the individual's life. These include living conditions (e.g., owned vs rented

vs council accommodation), employment (e.g., full-time vs occasional vs erratic work vs low take-home pay vs unemployment), family relationships (e.g., stable relationships vs conflictual vs broken family life), mental and physical health, and drug and alcohol abuse.

The term *unsuccessful* is not considered in this study as value-laden. According to these researchers, adjustment to life in adulthood is a form of successful life style, while life maladjustment indicates an unsuccessful life style. In the study of criminal careers, particular attention is devoted to life adjustment and to how it develops into either a successful or unsuccessful life style (Farrington et al., 2006; Piquero et al., 2010; Ullrich, Farrington, & Coid, 2008; Theobald, Farrington, Coid, & Piquero, 2016b). These dimensions tell us how, and to what extent, offending is a part of a more complex and deviant way of life (West & Farrington, 1977). Offending and its consequences should not be treated as a compartmentalized feature of human life, as if offending were a discrete event, which did not have any impact beyond conviction or an admission of offending. Offending seems, in fact, to impact on how individuals adjust to life and contribute to their life style.

Psycho-criminological research shows that an offender does not stand free in space as an entirely independent individual, and does not live in a social vacuum, isolated from any ties. An offender is always part of certain social settings, "whose determining forces have an effect which is merely relativized by the individuality of each personality" and life style (see Göppinger, 1987, p. 4). Research shows that life adjustment can also shed some light on what has become of those who were once delinquent children (Farrington, 1986; Loeber & Farrington, 2001). It can provide information on intervention prognosis (Göppinger, 1987) so that it would be feasible to implement social and health promoting programs to sustain the social reintegration of adult offenders. Farrington (1986) demonstrated that in general adult criminal careers do not emerge without prior warning. Criminal career research (Farrington et al., 2006) shows that, for those individuals who have endured various forms of adverse and

antisocial experiences in life, the likelihood of manifesting maladjustment in adulthood is high. Maladjustment can take the form of alcohol and/or drug abuse, involvement in offending, unemployment, and family problems. For these individuals, the risk of dying early (Piguero, Farrington, Shepherd, & Auty, 2014), and often of a violent death or of unnatural causes (Laub & Vaillant, 2000), is also high. A key issue is to what extent types of official offenders (i.e. persisters, adolescence-limited offenders, and late-onset offenders) become more conventional and law-abiding, between ages 32 and 48, and to what extent their life style becomes less or more unsuccessful between these ages. According to previous studies (Farrington, et al., 2006), life style is dimensional, and measures of life style based on unemployment, relationships, substance abuse, and mental health have been constructed by psycho-social researchers (Werner & Smith 2001). An unsuccessful life style is defined here as life maladjustment, health problems and unsatisfactory life in at least four out of seven areas (accommodation; cohabitation; unemployment; fights; alcohol use; drug use; mental health) (see later for a more detailed description). The main aim of this paper is to explore the adult unsuccessful life style of official offenders in comparison with self-reported offenders. Unsuccessul life style in official and self-reported offending

The most accurate information about criminal careers can be obtained from a combination of official records and self-reports. A vast array of literature on the topic shows that validity and reliability represent a challenge in the study of criminal careers, but there is evidence that those offenders who are officially convicted are more likely also to self-report unofficial criminal behavior than those who are official non-offenders (Jolliffe & Farrington, 2014). For instance, in their comparison of criminal career features (age of onset, age of termination, career duration, frequency of offending) in official records and self-reports, using data from the CSDD, Farrington and colleagues (2014) show that almost all males admitted at least one offense, compared with about one third who were convicted. Some gaps

appeared between self-reported offending (SRO) and official offending (i.e. convictions) in that the number of offenses was over 30 times greater, the age of onset was earlier and the career duration was longer in SRO compared with convictions, and the age of desistance was generally later according to convictions.

While studies such as this allow for a better understanding of how to maximize the validity of SRO by more integrative (official and SR) research, still no study is available on how official and self-reported offenders adjust to life in adulthood, and how, and to what extent, their C-type or SR-type criminal careers affected how their adult lives unfolded. This type of knowledge could provide useful information not only for early prevention, but especially for differential risk assessment, and differential intervention (Zara & Farrington, 2013, 2016a).

The query that Farrington (1989) raised 30 years ago, which is still fundamental, concerns to what extent convicted men differ from unconvicted men in later adulthood, at age 32. The present research aims to advance further the investigation by comparing official and SR offenders with official and SR non-offenders at both ages 32 and 48.

By exploring how life adjustment unfolds in official and self-report offenders, researchers might contribute to a better understanding of how risk factors, life experiences and behavior are interdependent, and of how to recognize individual differences underlying a similar outcome (*equifinality principle*), and individual similarities underlying different outcomes (*multifinality principle*) (Cicchetti & Rogosch, 1996).

The main interest of this research is to investigate how official offenders compare with the corresponding self-reported offenders in order to explore how and to what extent they have adjusted, successfully or not, to adult life over a 40-year time period. The focus is on individual offenders, and not just on offending behaviors. The comparison will involve: convicted *life-course persisters* (C-LCP) (i.e., those who start offending before age 21, and

who continue offending, with criminal career termination at age 30 or later) *versus* adolescence-limited offenders (C-AL) (i.e., those involved in offending before age 21, and whose criminal career termination is before age 30) *versus late onset offenders* (C-LO) (i.e., those who start offending only at 21 years of age or later) *versus non-offenders* (C-NO) (i.e., those who do not have any recorded conviction).

Jolliffe and colleagues (2017a) reviewed longitudinal studies of the prevalence of LCP, AL, and LO offenders, and Jolliffe and colleagues (2017b) reviewed longitudinal studies of early risk factors for LCP, AL, and LO offenders. The findings show differences in degree more than in kind. In the CSDD, Farrington and colleagues (2006) have shown differential intensity of risk factors responsible for official criminal careers that led to differential life styles, and found that 95% of unconvicted men (not convicted up to age 50), 96% of desisters (convicted only before age 21), 84% of late onsetters (convicted only at age 21 or after), and 65% of persisters (convicted both before and after their 21st birthday) were considered to be leading a successful life style. For instance, desisters were not significantly different from unconvicted men in seven areas of adult life or in their total unsuccess life style score. Late onsetters were significantly different from unconvicted men in their alcohol and drug use. Persisters were leading the most unsuccessful life style at age 48.

In line with the objectives outlined above, the present research aims to explore whether and to what extent C-LCP, C-AL, C-LO, and C-NO can be distinguished from SR-LCP, SR-AL, SR-LO, and SR-NO in respect of what happened to them, later in life, and in their adult adjustment. These 4 mutually exclusive groups of C-types, and the 4 SR-types were compared to examine which:

(1) life style outcomes could assist in explaining differences and similarities of C-LCP vs. C-NO; C-AL vs. C-NO; C-LO vs. C-NO;

(2) life style outcomes could assist in explaining differences and similarities of SR-LCP vs. SR-NO; SR-AL vs. SR-NO; SR-LO vs SR-NO.

The main question that is addressed in this study is as follows:

Do official and self-reported offending both have an impact on life style outcomes? If yes: how similar are their effects?

Method

Adult life style factors

Along with official criminal records and self-reported admissions, life adjustment at ages 32 and 48, as measured by the revised Unsuccessful Life Style Scale (ULSS), was analyzed. A revised version of the ULSS was used in this research¹. The ULSS is a composite measure and is based on the following criteria, which are explained in more detailed by Farrington (1989) and Farrington and colleagues (2006):

- 1. Unsatisfactory accommodation history.
- 2. Unsatisfactory cohabitation history.
- 3. Unsatisfactory employment history.
- 4. Involved in physical fights.
- 5. Unsatisfactory alcohol use.
- 6. Drug use.
- 7. Unsatisfactory mental health: score four or less on the GHQ, which is designed to detect non-psychotic psychiatric illness (anxiety/depression).

Each man was scored according to the percentage of these criteria, referring to the previous five years, on which his life style was considered unsuccessful, with a higher score indicating an unsuccessful life style. This research adjusted the cut-off criterion for an unsuccessful life style, employed in previous research (Farrington, et al., 1988a, 1988b, 2006), to the new scale version: those succeeding in four or more of the seven criteria were considered to be living successful lives. When a man was not known or not applicable on one criterion, the percentage score was based on the remaining items. The correlation between the age 32 and age 48 unsuccessful life style measures was r = .496 (p < .01).

These criteria are significant features of adjustment to adult life, as shown in other studies (Farrington, Coid, & West, 2009; Piquero, Farrington, Nagin, & Moffitt, 2010), and are relevant indicators of how adult men might be affected by an unstable and deviant life style, beyond their official records and criminal activities (Zara & Farrington, 2016b). Each male was scored according to the percentage of these seven criteria on which he was considered to be leading an unsuccessful life style (for further details see Farrington, Gallagher, Morley, St. Ledger, & West, 1988a, 1988b; Farrington, et al., 2006).

Criminal record searches of the males

The criminal records of the CSDD males have been searched repeatedly² up to age 61, and their self-reported offending was measured up to age 48 (Farrington, 2019b). The criminal record searches were carried out in the central Criminal Record Office³ or National Identification Service (CRO/NIS) at Scotland Yard in London, from 1964 to 1994. The last search of conviction records⁴ in the CRO/NIS occurred at the end of 1994, when most of the males were aged 41. From 1995 all convictions were recorded on the Police National Computer (PNC)⁵. Further searches of criminal records of the males took place in July 2002 and December 2004 in the PNC, at which time most of the males were aged 51. A further search of the PNC was completed in 2011, when most males were aged 57 (Farrington, Piquero, & Jennings, 2013). The most recent PNC search was completed in April 2017, when it is likely that all offenses committed up to the end of August 2016 would have been recorded (Farrington, 2019a). Therefore, information is now available about all offenses committed up to age 61.99 (i.e. up to just before the 62nd birthday) (Farrington, 2019b).

In total, 178 males were convicted up to age 61 (44% of 409 at risk) with a total of 947 offenses, including 57 cautions (Farrington, 2019a). Convictions were only counted if they were for "standard list" (more serious) offenses. The number of males at risk of conviction decreased from 409 at age 10 to 358 at age 61, because of death and emigration.

Up to age 60, 34 males died (out of the entire sample of 411), a mortality rate of 8.3%, of whom 24 were convicted: 2 died before reaching age 21; 4 died between ages 21 and 30; 8 died between ages 31 and 50; and 10 others died before reaching age 60. In addition, 23 males were known to have emigrated permanently up to age 48, of whom 4 were convicted. *Self-reported offending*

In the CSDD, self-reported offending was measured at ages 14, 18, 32, and 48 (Farrington et al., 2014; Farrington, 2019a,b). The eight offenses explored were: burglary, theft of vehicles, theft from vehicles, shoplifting, theft from machines, assault, drugs, and vandalism. A series of cards with these types of offenses written on them were given to the males, who were invited to indicate whether they had ever committed each offense by placing the card on a pile that had 'yes' or 'no' written on it. When the answer was 'yes', they were asked to specify how many offenses had been committed in the last year and in the previous five years. Each male was scored according to the number of different types of offenses that he admitted at each age.

To identify a CSDD male as a SR offender, a conservative procedure was employed, which replicated the one adopted in previous studies (Zara & Farrington, *under submission*). The first step measured the score of each male on the eight offenses at each of the ages. Those who scored 5 or more, at ages 14 and 18, were considered SR offenders in those age groups; those who scored 2 or more, at ages 32 and 48, were considered SR offenders in those age groups. The cut-off points were based on the worst quartile scores of the convicted group only. Researchers were unaware of the males' criminal careers when they were assessing the SR data. To allocate the SR offenders in each of the offending categories, those who had high scores at both age ranges (14-18 and 32-48) were considered SR-LCP; those who had high scores only at ages 14-18 were considered SR-AL; those who had high scores

only at ages 32-48 were considered SR-LO; those who had low scores in both age ranges were considered SR-NO.

Analytical strategy

Life adjustment factors that make up the total ULS score were analyzed as a continuous variable to compare means and standard deviations values of the C-type and SR-type categories. These scores were then dichotomized into the worst quarter versus the remainder. It is widely accepted that dichotomization is useful because it produces meaningful findings that are easily communicated to policy makers and practitioners (Farrington & Loeber 2000). The results are simplified because dichotomization makes it possible to compare the predictive strengths of variables, and equalize the sensitivity of their measurement. Moreover, the dichotomization encourages the identification of individuals who are particularly vulnerable or resilient because they possess several risk factors (Farrington & Loeber, 2000). Individuals are rather more interesting than variables. The odds ratio is the best measure of strength of association between dichotomous variables, and it was chosen for this study. It is easily understandable as the increase in the odds (risk) of an outcome associated with the presence of the risk factor under examination.

Results

Official and self-reported criminal careers

The CSDD sample was composed of 54 C-LCP (13.8%), 76 C-AL (19.4%), 42 C-LO (10.7%), and 220 C-NO (56.1%). 19 men were not included because they died or emigrated permanently, and were not at risk at age 30.

As expected, the official criminal careers of the C-LCP, C-AL and C-LO offenders differed. For instance, C-LCP had a criminal career that spanned over 30 years on average, and an average of almost 10 convictions. C-AL had short criminal careers, of just over four years, before emerging adulthood, and an average of four offenses. C-LO had an average

career duration of four years, and an average of two offenses for which they had been convicted. 379 CSDD males admitted 1,807 self-reported offenses, with an average of five offenses for each individual (SD = 2.75) between ages 14 and 48. Table 1 shows the descriptive values differentiated by types of (a) official and (b) self-reported offending. There was a significant and positive correlation between official and self-reported offending (r = .563, p < .0001) suggesting that convicted men were likely to also admit self-reported offenses.

TABLE 1 ABOUT HERE

The SR-type categories were composed of 56 SR-LCP (14.8%), 81 SR-AL (21.4%), 26 SR-LO (6.9%), and 216 SR-NO (57.0%). 32 men were not interviewed. On average the self-reported offenders admitted nearly six types of SR offenses between ages 14 and 18, and on average two types of SR offenses between ages 32 and 48. The average number of SR offenses was six at age 14-18 and three at ages 32-48 for SR-LCP; of six at ages 14-18 and one at ages 32-48 for SR-LO; and of three at ages 14-18 and none at ages 32-48 for SR-NO.

The overlap of the C-types and SR-types is shown in table 2. To determine the extent to which a specific cell within the table significantly differed from the expected frequency, the Adjusted Standardized Residual (ASR) was calculated⁶. ASR values indicate how many standard deviations above or below the expected count an observed count is, and signify the importance of the cell to the chi-square value (Agresti, 2007). The ASR differs from similar tests of this nature in that it takes into account the overall size of the sample and gives a good indication of how much the observed count differs from the expected count (Farrington, Snyder, & Finnegan, 1988)⁷. A statistically significant ASR reflects an individual cell that is significantly different from chance expectation.

TABLE 2 ABOUT HERE

The chi-square test indicates a strong and statistically significant relationship between the four C-types and the four SR-types ($\chi^2 = 139.727$, df = 9, n = 379, p < .0001). C-LCP significantly overlapped with SR-LCP (ASR = +8.5, p < .05). C-LCP was negatively related to SR-NO (ASR = -6.8, p < .05). C-AL significantly overlapped with SR-AL (ASR = +4.4, p < .05), and was negatively related to SR-NO (ASR = -3.8, p < .05) and SR-LO (ASR = -2.1, p < .05). C-AL also overlapped with SR-LCP but it was only nearly significant (ASR = +1.8, p < .10). C-LO did not overlap significantly with any SR category. C-NO significantly overlapped with SR-NO (ASR = +8.4, p < .05), and was negatively related to SR-LCP (ASR = -7.1, p < .05) and SR-AL (ASR = -4.9, p < .05). The results of these tests are presented in table 2. To some extent, it is almost inevitable that the SR-LCP and SR-LO categories will be high on self-reported offenses, and it is likely that the C-LPC and C-LO will be high on convictions in the previous five years.

Unsuccessful life style outcomes

These results showed some of the similarities and differences between official and SR criminal careers, which bring us to the focus of our investigation:

Are official offending and self-reported offending both likely to have an impact on an unsuccessful life style?

The answer is yes: there was considerable overlapping of life adjustment outcomes and unsuccessful life style across groups, as shown in Table 3. All official and self-reported offenders exhibited high scores on the unsuccessful life style scale at age 32 in comparison with C-NO and SR-NO, while at age 48 C-AL, C-LO and SR-LO were leading a life style similar to C-NO and SR-NO. These results suggest that adjustment to life, measured by the unsuccessful life style scale, may be affected by different and independent factors beyond just criminal behavior. Criminality is in fact one factor, and not necessarily the most important one, that impinges upon life, as other studies have shown (Zara & Farrington, 2016b).

TABLE 3 ABOUT HERE

Specifically, C-LCP exhibited higher levels of unsatisfactory factors in almost every area assessed at both ages 32 and 48 in comparison with C-NO, showing that a high unsuccessful life style is likely to become a stable risk with age. Between C-AL and C-NO, significant differences were found in behavioral factors (e.g., involvement in physical fights) at age 32, and in alcohol and drug use at ages 32 and 48. Similar results were obtained when comparing C-LO and C-NO: C-LO reported higher levels of mental health problems (near significance level) at age 32, and unsatisfactory unemployment, alcohol and drug abuse at age 48. Table 3 shows these results.

When looking at self-reported offenders, it was evident that differences within SR-type categories were highly significant in almost all areas investigated, when SR-LCP were compared with SR-NO, which mostly replicated the results obtained with the C-type comparisons. No difference emerged at age 48 regarding unsatisfactory cohabitation or mental health (measured by the GHQ). Significant differences were also found in the general level of unsuccessful life style at both ages for SR-AL in comparison with SR-NO. SR-AL were no more unsuccessful than SR-NO regarding some components of life style such as unsatisfactory accommodation, unemployment, and mental health problems at age 32 and at age 48, while, on the other hand, they were more involved in fights, and in alcohol and drug abuse.

SR-LO tended to have an unsuccessful life style. At age 32, SR-LO were more likely than SR-NO to report unsatisfactory accommodation, a high level of involvement in physical fights, and high levels of alcohol and drug abuse. At age 48, SR-LO continued to exhibit high levels of drug abuse and involvement in fights, with no difference in the other areas of life.

Given these results, it was interesting to explore whether life style worsened or improved over time, from age 32 to age 48, 16 years later. These ages in an individual's life

are crucial because they almost define the threshold of personal, professional and social achievement (Kanazawa, 2003). As Einstein claimed: "A person who has not made his great contribution to science before the age of thirty will never do so (Brodetsky, 1942, p. 699).

All C-type and SR-type categories show significant changes in life style from age 32 to age 48, suggesting that with age the level of maladjustment diminished, with the only exception being the C-LO type whose life style seemed not to improve significantly from age 32 to age 48. This might be related to the fact that these LO offenders started to offend late in life (at age 21 or later) perhaps after some adjustment life choices had already been made. However, more studies are required to explore specifically and further the impact of late criminal onset on life style. Table 4 shows the paired t-test comparisons of all categories.

TABLE 4 ABOUT HERE

As shown in Table 5, the C-type and SR-type categories that were highest on an unsuccessful life style at ages 32 and 48 were those that exhibited or self-reported the highest offending throughout adulthood. This result becomes clear when observing the unsuccessful life style of C-LCP and SR-LCP offenders. Two other interesting groups are the late onset offenders and the adolescence-limited offenders who seem not to differ significantly in life style, with only one exception: the comparison at age 32 shows a significantly higher unsuccessfully life style for SR-LO.

These findings suggest that the patterns of official offending and self-report offending by the CSDD males are significantly associated with an unsuccessful life style at both age 32 and 48.

TABLE 5 ABOUT HERE

Conclusions

This research investigated an understudied topic: the extent to which different categories of offenders, namely official (C-type) and self-reported (SR-type) offenders, have

different degrees and types of unsuccessful life styles. Using data from a sample of 411 South London males, we explored how official and self-reported offending might affect life adjustment and life style measured on seven separate criteria, in middle age (both at age 32 and at age 48).

We find that offenders, both in the C-type and in the SR-type categories, manifested a higher unsuccessful life style in comparison with C-NO and SR-NO who were, as expected, leading the most successful lives. These findings are in line with previous studies, which compared official categories of offenders with non-offenders (Farrington, 1989; Farrington, et al., 2006).

From a scientific and criminological point of view, what has emerged from the current research is that many differences between offenders and non-offenders are clearly evident, and do not seem to be altered when comparing official and SR offending. Indeed, other aspects, apart from crime, are likely to have affected the life adjustment of these men. These findings suggest that offending (either official or self-reported, or both), and the experience of contact with the criminal justice system (i.e. conviction) may contribute to an unsuccessful life style. However, these events do not seem to be the only factors affecting the equation.

Life style is a reflection of adult life adjustment, which is made up by different components that range from accommodation and personal relationships to mental health and employment.

The lack of success in any of these components contributes to poor life adjustment.

Offending behavior makes this more serious and perhaps more complicated. From a clinical perspective what has emerged as a concern is that a cumulative process of risk (Farrington, Loeber, Jolliffe, & Pardini, 2008; Loeber, Slot, & Stouthamer-Loeber, 2008; Stouthamer-Loeber, Loeber, Wei, Farrington, & Wikström, 2002; Zara & Farrington, 2016a) is likely to occur when individuals pursue a life of crime.

As criminal career studies demonstrate (Blumstein, Cohen, Roth, & Visher, 1986; Farrington, 1992, 2019b; Farrington, et al., 2013; Loeber & Farrington, (2001; Piquero, Farrington, & Blumstein, 2003, 2007; West & Farrington, 1973, 1977; Zara, 2005), the act of offending is never a discrete event (as it is for criminal law), and never occurs in a psychological vacuum; its consequences can build up a scaffolding for maladjustment to escalate. This is a process that might be in line with what Nagin and Paternoster (2000 p. 118) defined as a *process of contagion* "in which an offender's current activities makes their life circumstances worse". The aspects of the CSDD men's life that were significantly compromised (e.g., family life and cohabitation, accommodation, work opportunities, mental health, abuse of alcohol and drugs, heavy smoking, being involved in physical fights) affected those components that in Western society are considered relevant to living a successful or satisfactory life, and to the individual's well-being.

These findings suggest that many areas of life adjustment are crucial in influencing the life style beyond offending. In particular, we find that being involved in physical fights, alcohol and drug use have featured in the life of official offenders, and especially of C-LCP and C-AL at age 32, and in the life of all official offenders at age 48. SR-LCP, SR-AL and SR-LO reported higher levels of alcohol and drug use in comparison with SR-NO, while SR-LO reported only a higher level of drug use. Admissions of being involved in physical fights were significantly present in C-AL and C-LCP at age 32, and in all SR-types at both ages 32 and 48. These components are not simply behavioral; they are likely to be the expression of a problematic life style in which alcohol or drugs may act as a compensatory effect or as a getaway strategy from an unbearable reality.

It is reassuring that these findings are in line with the impressions gained from retrospective and prospective enquiries about the histories of established offenders, and with what West and Farrington (1973) demonstrated 46 years ago: the features that characterize

the life style of middle-aged offenders were demonstrably present early in their lives and predicted not only future criminality but life adjustment as well.

This draws attention to the fact that criminal behavior is just one aspect of a more complex and problematic antisocial syndrome that alters the quality of life, affects mental health, influences family relationships and prevents individual and professional achievement. The positive aspect from these findings is that addressing these issues might contribute to improving the quality of the life style in many adult offenders, and promoting their desistance from a life of crime, in so far as it is never too late to intervene (Loeber, Farrington, & Petechuk, 2003; Loeber & Farrington, 1998), and change can be possible.

Limitations of the study and further perspectives

This study is not without limitations. It focuses on life success on a sample of working-class British White males born in 1953. To what extent these findings could be generalized to middle class, to females, people from different ethnic origins and living in different countries, and people born in contemporary times, remains to be explored.

Moreover, this study did not specifically focus on physical health, which could help to complete our understanding of the impact of drugs and alcohol abuse upon well-being.

Substance use could be an interesting aspect to investigate further, because it could advance knowledge about the extreme decision-making of offenders who may develop an overwhelming sense of helplessness or an inflated sense of invulnerability. It could also have been interesting to explore to what extent mental health and personality variables, along with physical health, might have acted as mediators between the likelihood of official offending and the likelihood of getting away with crimes and admitting SR-offending. Research shows that personality characteristics tend to differentiate those who continue offending from those who do not (Jolliffe & Farrington, 2019).

Another aspect that was left unexplored is to what extent the life style in the CSDD men was influenced by psychopathy. It would have been especially interesting to explore to what extent specific dimensions of psychopathy, such as callous-unemotional, grandiose-manipulative, and daring-impulsive, as described in Bergstrøm and Farrington (2018), and more generally in DeLisi (2019), might have contributed to mediating the impact between adult adjustment and convictions, and between adult adjustment and admission of offending among official and self-reported offenders.

Despite these limitations, what has clearly emerged from the findings is that an unsuccessful life style is rarely limited to criminal behavior, either convicted or self-reported, but it is affected by other dimensions that significantly deteriorate the psycho-social functioning of the person. Paradoxically, criminal behavior seemed the least problematic aspect of the unsuccessful life style in many of the CSDD men. More studies are necessary to investigate unsuccessful life style in other samples and cultural contexts.

This study presents the first comparative analysis of categories of offenders according to official records versus self-reports, and the first comparative longitudinal study of an adult unsuccessful life style at both ages 32 and 48 for different categories of offenders.

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References

Agresti, A. (2007). *An introduction to categorical data analysis* (2nd ed.). Hoboken, New Jersey: John Wiley & Sons, Inc.

Bergstrøm, H., & Farrington, D. P. (2018). Grandiose-Manipulative, Callous-Unemotional, and Daring-Impulsive: the prediction of psychopathic traits in adolescence and their outcomes in adulthood. *Journal of Psychopathology and Behavioral Assessment*, 40, 149–158. DOI: 10.1007/s10862-018-9674-6

Blumstein, A., Cohen, J., Roth, J.A., & Visher, C.A. (1986) (Eds.). *Criminal careers and "Career criminals"* (vol. 2). Panel on Research on Career Criminals, Committee on Research on Law Enforcement and the Administration of Justice, Commission on Behavioral and Social Sciences and Education, National Research Council. Washington, DC: National Academy Press.

Brodetsky, S. (1942). Newton: Scientist and man. Nature, 150, 698-699.

Cicchetti, D., & Rogosch, F. A. (1996). Equifinality and multifinality in developmental psychopathology. *Development and Psychopathology*, 8, 597–600. http://dx.doi.org/10.1017/S0954579400007318

De Lisi, M. (2019) (Ed.). Routledge International Handbook of Psychopathy and Crime. Abingdon, Oxon, UK: Routledge.

Farrington, D. P. (1986). Stepping stones to adult criminal careers. In D. Olweus, J. Block, & M. Radke-Yarrow (Eds), *Development of antisocial and prosocial behaviour* (pp. 359–384). London-New York: Academic Press.

Farrington, D. P. (1989). Later Adult Life Outcomes of Offenders and Nonoffenders. In M. Brambring, F. Loesel, & H. Skowronek (Eds.), *Children at Risk: Assessment, Longitudinal Research, and Intervention* (pp. 220–244). Berlin, Germany: Walter de Gruyter.

Farrington, D. P. (1991). Antisocial personality from childhood to adulthood. *The Psychologist*, 4, 389–394.

Farrington, D. P. (1992). Criminal career research in the United Kingdom. *British Journal of Criminology*, 32, 521–536.

Farrington, D. P. (2003). Key results from the first forty years of the Cambridge Study in Delinquent Development. In T. P. Thornberry, & M. D. Krohn (Eds.), *Taking stock of delinquency: An overview of findings from contemporary longitudinal studies* (pp. 137–183). New York: Kluwer Academic/Plenum.

Farrington, D. P. (2019a). Childhood Risk and Protective Factors for Early Desisters, Late Desisters, and Life-Course Persistent Offenders. *REIC – Revista Española de Investigación*, 17, 1–33.

Farrington, D. P. (2019b). The Duration of Criminal Careers: How Many Offenders Do Not Desist up to Age 61? *Journal of Developmental and Life-Course Criminology*, 5, 4–21. DOI: 10.1007/s40865-018-0098-5

Farrington, D. P. & Coid, J. W. (2003) (Eds.). *Early prevention of adult antisocial behaviour*. Cambridge, UK: Cambridge University Press.

Farrington, D. P., Coid, J. W., Harnett, L., Jolliffe, D., Soteriou, N., Turner, R., & West, D. J. (2006). *Criminal careers up to age 50 and life success up to age 48: New findings from the Cambridge Study in Delinquent Development*. London: Home Office (Research Study No. 299).

Farrington, D. P., Coid, J. W., & West, D. J. (2009). The development of offending from age 8 to age 50: Recent results from the Cambridge Study in Delinquent Development.

Monatsschrift fur Kriminologie und Strafrechtsreform (Journal of Criminology and Penal Reform), 92, 160–173.

Farrington, D. P., Gallagher, B., Morley, L., St. Ledger, R. J., & West D. J. (1988a). A 24-year follow-up of men from vulnerable backgrounds. In Jenkins, R. L., & Brown, W. K. (Eds.), *The Abandonment of Delinquent Behaviour: Promoting the Turnaround* (pp. 155–173). New York: Praeger.

Farrington, D. P., Gallagher, B., Morley, L., St. Ledger, R. J., & West, D. J. (1988b). Are there any successful men from criminogenic backgrounds? *Psychiatry*, *51*, 116–130.

Farrington, D. P., & Loeber, R. (2000). Some benefits of dichotomization in psychiatric and criminological research. *Criminal Behaviour and Mental Health*, *10*, 100–122.

Farrington, D. P., Loeber, R., Jolliffe, D., & Pardini, D. A. (2008). Promotive and risk processes at different life stages. In R. Loeber, N. W. Slot, P. van der Laan, & M. Hoeve (Eds.), *Tomorrow's criminals* (pp. 241–310). Surrey, UK: Ashgate Publishing.

Farrington, D. P., Piquero, A. R., & Jennings, W. G. (2013). Offending from childhood to late middle age: Recent results from the Cambridge Study in Delinquent Development. New York: Springer.

Farrington, D. P., Snyder, H. N., & Finnegan, T. A. (1988). Specialization in juvenile court careers. *Criminology*, *3*, 461–487.

Farrington, D. P., Ttofi, M. M., Crago, R. V., & Coid, J. W. (2014). Prevalence, frequency, onset, desistance and criminal career duration in self-reports compared with official records. *Criminal Behaviour and Mental Health*, 24, 241–253.

Göppinger, H. (1987). Life style and criminality, Berlin: Springer.

Hanson, R. K., Harris, A. J. R., Letourneau, E., Hulmus, L. M., & Thornton, D. (2018). Reductions in Risk Based on Time Offense-Free in the Community: Once a Sexual Offender, Not Always a Sexual Offender. Psychology, Public Policy, and Law, 24, 48–63. DOI: 10.1037/law0000135

Harris, D. A. (2014). Desistance from sexual offending: Findings from 21 life history narratives. *Journal of Interpersonal Violence*, 29, 1554–1578. DOI: 10.1177/0886260513511532

Jennings, W. G., Rocque, M., Fox, B. H., Piquero, A. R., & Farrington, D. P. (2016). Can they recover? An assessment of adult adjustment problems among males in the abstainer, recovery, life-course-persistent and adolescence-limited pathways followed up to age 56 in the Cambridge Study in Delinquent Development. *Development and Psychopathology*, 28, 537–549.

Jolliffe, D., & Farrington, D. P. (2014). Self-reported offending: Reliability and validity. In G. J. N. Bruinsma & D. L. Weisburd (Eds.), *Encyclopedia of Criminology and Criminal Justice*. DOI: 10.1007/978-1-4614-5690-2

Jolliffe, D., & Farrington, D. P. (2019). Personality and other individual influences in offending. In D. P. Farrington, L. Kazemian, & A. R. Piquero (Eds.), *The Oxford Handbook on Developmental and Life-Course Criminology* (pp. 355-377). New York, USA: Oxford University Press.

Jolliffe, D., Farrington, D. P., Piquero, A. R., Loeber, R., & Hill, K. G. (2017b). Systematic review of early risk factors for life-course-persistent, adolescence-limited, and lateonset offenders in prospective longitudinal studies. *Aggression and Violent Behavior*, *33*, 15–23. DOI: 10.1016/j.avb.2017.01.009

Jolliffe, D., Farrington, D. P., Piquero, A. R., MacLeod, J. F., & van de Weijer, S. (2017a). Prevalence of life-course-persistent, adolescence-limited, and late-onset offenders: A systematic review of prospective longitudinal studies. *Aggression and Violent Behavior*, *33*, 4–14. DOI: 10.1016/j.avb.2017.01.002

Kanazawa, S. (2003). Why productivity fades with age: The crime–genius connection. *Journal of Research in Personality*, *37*, 257–272. DOI: 10.1016/S0092-6566(02)00538-X

Kazemian, L. (2007). Desistance from crime: Theoretical, empirical, methodological, and policy considerations. *Journal of Contemporary Criminal Justice*, 23, 5–27.

Laub, J. H., & G. E. Vaillant. (2000). Delinquency and Mortality: A 50-Year Follow-up Study of 1,000 Delinquent and Nondelinquent Boys. *American Journal of Psychiatry*, 157, 96-102.

Liu, S., & Bushway, S. D. (2019). Persistence and desistance. In Farrington, D. P., Kazemian, L., & Piquero, A. R. (Eds.), *The Oxford Handbook on Developmental and Life-Course Criminology* (pp. 81–96). New York: Oxford University Press.

Loeber, R., Slot, N. W., & Stouthamer-Loeber, M. (2008). A cumulative developmental model of risk and protective factors. In R. Loeber, N. W. Slot, P. van der Laan, & M. Hoeve (Eds.), *Tomorrow's criminals* (pp. 133–161). Surrey, UK: Ashgate Publishing.

Loeber, R., & Farrington, D. P. (1998). Never too early, never too late: Risk factors and successful interventions for serious and violent juvenile offenders. *Studies on Crime and Crime Prevention*, 7, 7–30.

Loeber, R., & Farrington, D. P. (2001) (Eds.). *Child delinquent: Development, Intervention, and Service Needs*. Thousand Oaks CA: Sage Publications.

Loeber, R., Farrington, D. P., & Petechuk, D. (2003). *Child Delinquency: Early Intervention and Prevention*. (Juvenile Justice Bulletin) Washington, D.C.: U.S. Office of Juvenile Justice and Delinquency Prevention (NCJ 186182).

Moffitt, T. E., Caspi, A., Harrington, H. L., & Milne, B. J. (2002). Males on the Life-Course-Persistent and Adolescence-Limited Pathways: Follow-Up at Age 26 Years. *Development and Psychopathology*, *14*, 179–207.

Nagin, D. & Paternoster, R. (2000). Population heterogeneity and state dependence: State of the evidence and directions for future research. *Journal of Quantitative Criminology*, *16*, 117–144. DOI: 10.1023/A:1007502804941

Odgers, C. L., Caspi, A., Broadbent, J. M., Dickson, N., Hancox, R. J., Harrington, H. L., Poulton, R., Sears, M. R., Thomson, M. W., & Moffitt, T. E. (2007). Conduct Problem Subtypes in Males Predict Differential Adult Health Burden. *Archives of General Psychiatry*, 64, 476–84.

Piquero, A. R., Farrington, D. P., & Blumstein, A. (2003). The criminal career paradigm. *Crime and Justice*. Chicago: The University of Chicago Press, *30*, 359–506.

Piquero, A. R., Farrington, D. P., & Blumstein, A. (2007). *Key issues in criminal career research*. Cambridge: Cambridge University Press.

Piquero, A. R., Farrington, D. P., Nagin, D. S., & Moffitt, T. E. (2010). Trajectories of offending and their relation to life failure in late middle age: Findings from the Cambridge Study in Delinquent Development. *Journal of Research in Crime and Delinquency*, 47, 151–173.

Piquero, A. R., Farrington, D. P., Shepherd, J. P., & Auty, K. (2014). Offending and early deaths in the Cambridge Study in Delinquent Development. *Justice Quarterly*, *31*, 445–472. DOI: 10.1080/07418825.2011.641027

Piquero, A. R., Shepherd, J. P., Shepherd, I., & Farrington, D. P. (2011). Impact of offending trajectories on health: Disability, hospitalization, and death in middle-aged men in the Cambridge Study in Delinquent Development. *Criminal Behaviour and Mental Health*, 21, 189–201.

Roberts, B. W., Harms, P. D., Caspi, A., & Moffitt, T. E. 2007. Can We Predict the Counterproductive Employee? Evidence from a Child-to-Adult Prospective Study. *Journal of Applied Psychology*, 92, 1427–1436.

Shepherd, J. P., Shepherd, I., Newcombe, R. G., & Farrington, D. P. (2009). Impact of antisocial lifestyle on health: Chronic disability and death by middle age. *Journal of Public Health*, *31*, 506–511.

Stouthamer-Loeber, M., Loeber, R., Wei, E., Farrington, D. P., & Wikström, P. H. (2002). Risk and promotive effects in the explanation of persistent serious delinquency in boys. *Journal of Consulting and Clinical Psychology*, 70, 111–123.

Theobald, D., Farrington, D. P., Coid, J. W., & Piquero, A. R. (2016a). A longitudinal analysis of the criminal careers of IPV offender subtypes: Results from a prospective survey of males. *Violence and Victims*, *31*, 999–1020. DOI: 10.1891/0886-6708

Theobald, D., Farrington, D. P., Coid, J. W., & Piquero, A. R. (2016b). Are male perpetrators of intimate partner violence different from convicted violent offenders? Examination of psychopathic traits and life success in males from a community survey. *Journal of Interpersonal Violence*, 31, 1687–1718.

Theobald, D., Farrington, D. P., & Piquero, A. R. (2013). Childhood broken homes and adult violence: An analysis of moderators and mediators. *Journal of Criminal Justice*, *41*, 44–52.

Theobald, D., Farrington, D. P., & Piquero, A. R. (2019). The impact of changes in family situations on persistence and desistance from crime. In Farrington, D. P., Kazemian, L., & Piquero, A. R. (Eds.), *The Oxford Handbook on Developmental and Life-Course Criminology* (pp. 475–494). New York: Oxford University Press.

Ullrich, S., Farrington, D. P., & Coid, J. W. (2008) Psychopathic personality traits and life-success. *Personality and Individual Differences*, *44*, 1162–1171.

Werner, E. E., & Smith, R. S. (2001). *Journeys from Childhood to Midlife: Risk, Resilience, and Recovery*. Ithaca, NY: Cornell University Press.

West, D. J., & Farrington, D. P. (1973). Who becomes delinquent? Second report of the Cambridge Study in Delinquent Development. London: Heinemann Educational Books.

West, D. J., & Farrington, D. P. (1977). *The delinquent way of life: Third report of the Cambridge Study in Delinquent Development*. London: Heinemann Educational Books.

Wiesner, M., Kim, H. K., & Capaldi, D. M. (2005). Developmental Trajectories of Offending: Validation and Prediction to Young Adult Alcohol Use, Drug Use, and Depressive Symptoms. *Development and Psychopathology*, *17*, 251–270.

Zara, G. (2005). Le carriere criminali [Criminal careers]. Milan: Giuffrè.

Zara, G., & Farrington, D. P. (2013). Assessment of risk for juvenile compared with adult criminal onset: Implications for policy, prevention and intervention. *Psychology, Public Policy and Law*, *19*, 235–249. DOI: 10.1037/a0029050

Zara, G., & Farrington, D. P. (2016a). *Criminal recidivism: Explanation, prediction and prevention*. Abingdon, UK: Routledge.

Zara, G., & Farrington, D. P. (2016b). Chronic offenders and the syndrome of antisociality: Offending is only a minor feature! *Irish Probation Journal*, *13*, 40–64.

Zara, G., & Farrington, D. P. (*under submission*). Childhood risk factors for self-reported versus official life-course-persistent, adolescence-limited, and late onset offenders.

Notes

¹ For this specific research, it was important to use a revised version of the ULSS in which 'convictions in the last five years' and 'self-reported offenses in the last five years' were two items of the original version of the ULSS that were not included. The reason behind this choice was to reduce the possibility of obtaining results driven by definitions. Since official non-offenders cannot have convictions, and self-reported non-offenders are unlikely to have SR offenses in the last five years, these items could have significantly contributed to lower ULSS scores if they had been included in the scale.

² In the case of 18 males who had emigrated outside the United Kingdom by age 32, applications were made to search their criminal records in the eight countries where they had settled, and searches were actually carried out in five countries. Two males were counted as not at risk of conviction, because they emigrated permanently before age 10, were not convicted, and were not searched abroad. Three offenses that actually occurred under age 10 were counted as occurring at age 10 (Farrington, 2019b).

³ The Criminal Record Office contained records of all relatively serious offenses committed in the United Kingdom or Ireland, and also acted as a repository for records of minor juvenile offenses committed in London.

⁴ The age of offending has always been defined as the age at which an offense was committed, not the age on conviction. There can be delays of several months between offenses and convictions, making conviction ages different from offending ages (For details see Farrington, Barnes, & Lambert, 1996; Farrington, Lambert, & West, 1998).

⁵ The definition of a "standard list" offense changed over time. In particular, common assault became a standard list offense in July 1995, drunk driving was added to the standard list in January 1996, and being drunk and disorderly was added in April 1997. All of these types of offenses were counted. Minor crimes such as minor traffic infractions and simple

drunkenness were excluded.

⁶ The adjusted standardized residual (ASR) is calculated using the formula ASR = O − E/{ \sqrt{E} × $\sqrt{[1 - (R/T)][1 - (C/T)]}$ }, where O = observed number in cell, E = expected number by chance, R = row total, C = column total, T = grand total, × indicates multiplication, and E = R × C/T.

⁷ ASR values that are greater than 1.96 or less than -1.96 are significant at the p = .05 level (2-tailed).

Table 1 – Overlap of C-types and SR-types of offenders

	% of Official offending categories								
% of SR-offending categories	C-LCP	C-AL	C-LO	C-NO	Total				
	n = 52	n = 75	n = 40	n = 212	Total				
	28	16	5	7	56				
SR-LCP (n = 56)	53.8	21.3	12.5	3.3	14.8				
	$(8.5*)^a$	$(1.8*)^a$	(-0.4)	$(-7.1*)^{b}$					
	15	30	10	26	81				
SR-AL (n = 81)	28.8	40.0	25.0	12.3	21.4				
	(1.4)	$(4.4*)^a$	(0.6)	$(-4.9*)^{b}$					
	2	1	5	18	26				
SR-LO(n=26)	3.8	1.3	12.5	8.5	6.9				
	(9)	$(-2.1*)^{b}$	(1.5)	(1.4)					
	7	28	20	161	216				
SR-NO $(n = 216)$	13.5	37.3	50.0	75.9	57.0				
	$(-6.8*)^{b}$	$(-3.8*)^{b}$	(-0.9)	$(8.4*)^a$					
Γotal	52	75	40	212	379				

= 139.727, df = 9, n = 379, p < .0001Notes: C-LCP = convicted life-course-persistent offenders.

C-AL= convicted adolescence-limited offenders.

C-LO = convicted late onset offenders.

C-NO = official non-offenders.

 $SR\text{-}LCP = self\text{-}reported \ life\text{-}course\text{-}persistent \ offenders.}$

SR-AL= self-reported adolescence-limited offenders.

SR-LO = self-reported late onset offenders.

SR-NO = self-reported non-offenders.

Percentages exclude missing values. Cell counts are shown along with respectively column percentages and Adjusted Standardized Residual or ASR.

^a Indicates a positive significant ASR value at the p = .05 level. ^b Indicates a negative significant ASR value at the p = .05 level.

Table 2 – Official offending and SR-offending by types of offenders

(a)	C-Offenders	C-LCP	C-AL	C-LO	C- NO
Official offending	n = 178	n = 54	n = 76	n = 42	n = 226
Av. Number of offenses	5.32 (SD = 5.89)	9.74 (SD = 7.07)	3.80 (SD = 4.37)	2.26 (SD = 1.90)	
(b)	SR-offenders	SR-LCP	SR-AL	SR-LO	SR-NO
SR-offending	(n = 163)	(n = 56)	(n = 81)	(n = 26)	(n = 216)
Av. Number of self-reported	5.72 (SD = 1.62)	6.48 (SD = 1.18)	6.06 (SD = 1.03)	3.00 (SD = 1.10)	2.51 (SD = 1.14)
offenses between ages 10-18					
Av. Number of self-reported	1.61 (<i>SD</i> = 1.16)	2.70 (SD = .99)	.69 (SD = .47)	2.15 (SD = .46)	.32 (SD = .47)
offenses between ages 32-48					

Notes:

C-offenders = convicted offenders. C-LCP = convicted life-course-persistent offenders. C-AL= convicted adolescence-limited offenders. C-LO = convicted late onset offenders. The sum of the individuals in the C-type groups is not 178 because 6 men were not at risk after age 30.

Percentages exclude missing values.

SR-offenders = self-reported offenders. SR-LCP = self-reported life-course-persistent offenders. SR-AL= self-reported adolescence-limited offenders. SR-LO = self-reported late onset offenders. SR-NO = self-reported non-offenders.

Table 3 – C-types and SR types of offenders by ULSS 32 and 48

Adult adjustment				% of Convicted % of Self-Reported			% of Self-Reported							
outcomes	Official offending categories				Odds ratio		Official offending categories			Odds ratio				
	C-LCP (A)	C-AL	C-LO (C)	C-NO (D)	A/D	B/D	C/D	SR-LCP	SR-AL	SR- LO (C)	SR- NO (D)	A/D	B/D	C/D
	<i>n</i> = 54	<i>n</i> = 76	n = 42	n = 226				<i>n</i> = 56	n = 81	n = 27	n = 224			
						Ag	e 32							
ULSS - Total	68.0	47.9	38.5	20.8	8.11***	3.51***	2.38**	83.9	30.4	64.0	19.1	22.06***	1.84*	7.51***
Unsatisfactory accommodation	44.0	35.6	33.3	27.1	2.12**	1.49	1.35	42.9	34.2	44.0	26.3	2.10**	1.45	2.20^{\dagger}
Unsatisfactory cohabitation	32.0	26.0	20.5	20.8	1.80 [†]	1.34	.984	41.1	12.7	32.0	21.5	2.54**	.528	1.72
Unsatisfactory employment	50.0	23.9	26.3	17.9	4.60***	1.45	1.64	48.2	24.4	20.0	18.4	4.14***	1.43	1.11
Involved in physical fights in the last five years	70.0	44.4	35.9	27.1	6.29***	2.16**	1.51	76.8	39.7	68.0	22.0	11.72***	2.34**	7.53***
Unsatisfactory alcohol use	66.0	54.2	35.9	25.6	5.64***	3.43***	1.63	71.4	43.6	60.0	23.9	7.95***	2.46**	4.77***
Drug use	46.0	25.0	17.9	12.1	6.20***	2.43**	1.59	69.6	12.8	68.0	3.3	66.20***	4.24**	61.32***
Unsatisfactory mental health (score four or less on the GHQ)	38.0	26.0	30.8	18.8	2.64**	1.52	1.92 [†]	41.1	20.3	20.0	21.5	2.54**	.926	.911
						Ag	e 48							
ULSS - Total	54.0	17.4	20.0	11.5	9.03***	1.62	1.92	59.6	20.8	15.4	9.0	14.84***	2.64**	1.83

Unsatisfactory accommodation	38.0	17.4	17.1	17.0	2.99**	1.03	1.01	44.2	16.9	11.5	16.1	4.14***	1.06	.681
Unsatisfactory cohabitation	26.0	21.7	31.4	23.0	1.18	.930	1.53	26.9	20.8	30.8	23.6	1.19	.848	1.44
Unsatisfactory employment	40.0	15.9	25.7	13.0	4.46***	1.27	2.32*	44.2	16.9	7.7	14.1	4.84***	1.24	.509
Involved in physical fights in the last five years	40.0	11.6	11.4	10.0	6.00***	1.18	1.16	44.2	16.9	30.8	4.0	18.94***	4.85**	10.61***
Unsatisfactory alcohol use	34.0	27.5	37.1	14.0	3.17**	2.33**	3.63**	40.4	27.3	19.2	15.1	3.82***	2.11*	1.34
Drug use	42.0	18.8	22.9	10.0	6.52***	2.09*	2.67*	59.6	11.7	46.2	5.0	27.90***	2.50*	16.20***
Unsatisfactory mental health (score five or less on the GHQ)	17.4	17.9	18.2	15.7	1.13	1.17	1.19	22.4	19.4	8.3	15.1	1.63	1.36	.511

Notes: C-LCP = convicted life-course-persistent offenders.

C-AL= convicted adolescence-limited offenders.

C-LO = convicted late onset offenders.

NO = official non-offenders.

SR-LCP = self-reported life-course-persistent offenders.

SR-AL= self-reported adolescence-limited offenders.

SR-LO = self-reported late onset offenders.

SR-NO = self-reported non-offenders.

ULSS = Unsuccessful Life Style Scale (Unsuccessful Life Style score 6+).

Some numbers on individual outcomes are lower than the total n because of missing cases.

OR = Odds Ratio († p< .06 - .09) (* p< .05) (** p< .01) (*** p< .001).

Table 4 – Comparing Unsuccessful Life Style Scores at ages 32 and 48 in C-type and SR-type categories of offenders

C-type categories	Mean (SD)	Paired t-test	df	р	Effect size - Cohen's d	
C-LCP	49.87 (27.38)					
ULSS at age 32	49.87 (27.38)	3.838	47	.0001	.55	
C-LCP	35.38 (20.05)	3.030	47	.0001	.55	
ULSS at age 48	33.36 (20.03)					
C-AL	33.59 (21.87)					
ULSS at age 32	33.37 (21.07)	4.864	66	.0001	.59	
C-AL	20.00 (17.42)	1.001		.0001	.57	
ULSS at age 48	20.00 (17.12)					
C-LO	29.78 (22.42)					
ULSS at age 32	25170 (22112)	1.018	33	n.s.	.18	
C-LO	24.74 (21.38)	1.010				
ULSS at age 48	2, (21.30)					
C-NO	22.03 (19.69)					
ULSS at age 32	22.03 (13.03)	5.104	194	.0001	.37	
C-NO	15.40 (17.46)	2.101		.0001		
ULSS at age 48	, , ,					
SR-type categories	Mean (SD)	Paired t-test	df	р	Effect size - Cohen's d	
SR-LCP	56.86 (23.10)		51	.0001	.52	
ULSS at age 32	20.00 (23.10)	3.776				
SR-LCP	41.52 (20.80)	3.770			.52	
ULSS at age 48						
SR-AL	26.97 (17.55)					
ULSS at age 32		3.256	74	.002	.38	
SR-AL	19.31 (17.77)	3.230	/ 1	.002	.50	
ULSS at age 48	17.31 (17.77)					
SR-LO	45.57 (21.95)			.0001		
ULSS at age 32	73.37 (21.73)	4.719	24		.94	
SR-LO	23.86 (18.44)	7./1/	27		.94	
ULSS at age 48	23.00 (10.17)					

SR-NO ULSS at age 32	19.96 (18.54)	4.420	101	0001	22
SR-NO ULSS at age 48	13.95 (15.22)	4.439	191	.0001	.32

Notes:

C-LCP = convicted life-course-persistent offenders.

C-AL= convicted adolescence-limited offenders.

C-LO = convicted late onset offenders.

C-NO = official non-offenders.

SR-LCP = self-reported life-course-persistent offenders.

SR-AL = self-reported adolescence-limited offenders.

SR-LO = self-reported late onset offenders.

SR-NO = self-reported non-offenders.

ULSS = Unsuccessful Life Style Scale (continuous score).

Values are means, with standard deviations in parentheses.

Table 5 – Analysis of Variance Results for Unsuccessful Life Style Scores at Age 32 and Age 48 in C-type and SR-type categories of offenders

(a)						
	C-NO	C-LO	C-AL	C-LCP	F	Tukey's B Post Hoc comparisons
ULSS at age 32	22.33 (19.45)	29.76 (21.89)	34.63 (22.57)	50.49 (27.34)	24.844***	C-NO = C-LO C-NO < C-AL, C-LCP C-LO = C-AL C-LO < C-LCP C-AL < C-LCP
ULSS at age 48	15.69 (17.53)	24.47 (21.12)	19.86 (17.18)	35.14 (19.88)	16.001***	C-NO < C-LO, C-LCP C-NO = C-AL C-LO = C-AL C-LO < C-LCP C-AL < C-LCP
(b)						
	SR-NO	SR-LO	SR-AL	SR-LCP	F	Tukey's <i>B</i> Post Hoc comparisons
ULSS at age 32	20.61 (18.91)	45.57 (21.95)	27.82 (17.64)	56.95 (22.74)	57.387***	SR-NO < SR-LO, SR-AL, SR-LCP SR-LO < SR-AL SR-LO = SR-LCP SR-AL < SR-LCP
ULSS at age 48	14.28 (15.32)	23.62 (18.11)	19.57 (17.76)	41.52 (20.80)	35.859***	SR-NO < SR-LO, SR-LCP SR-NO = SR-AL SR-LO = SR-AL SR-LO < SR-LCP SR-AL < SR-LCP

Notes: C-NO = official non-offenders.

C-LO = convicted late onset offenders.

C-AL= convicted adolescence-limited offenders.

C-LCP = convicted life-course-persistent offenders.

SR-NO = self-reported non-offenders.

SR-LO = self-reported late onset offenders.

SR-AL= self-reported adolescence-limited offenders.

SR-LCP = self-reported life-course-persistent offenders.

ULSS = Unsuccessful Life Style Scale (continuous score).

Values are means, with standard deviations in parentheses.

****p* < .0001