

Chapter 6

General discussion

1 Summary of the main results

The aims of this study were twofold. First, it described the post-release criminal career development of a cohort of institutionalized youths as they transitioned into adulthood, as well as the risk and protective factors associated with that development. Second, focusing on the interrelationships between employment and crime, it tested basic life-course notions on the effect that transitions in a person's employment trajectory have on offending, and the way transitions in an individual's criminal trajectory in turn impact on his employment career.

To accomplish these aims, data was collected on the criminal careers of 270 high-risk boys who all had been treated in a juvenile justice institution in the Netherlands during the 1990s. Combining criminal career data with data on a broad array of static factors and time-varying information on employment resulted in a unique and rich longitudinal dataset with observations covering a period of 20 years. Personal, background and treatment characteristics were extracted from the treatment files. Information on convictions, incarceration, and employment was collected from official registers held by the Dutch Ministry of Justice, and the Dutch Ministry of Social Affairs and Employment. Conviction data span juvenile and adult offending (i.e., from age 12 and up), with 12 years being the minimum age of criminal responsibility in the Netherlands. The employment register operates since 1992 and has national coverage from 1998 onwards. Following these men up to age 32, this study covers a particularly important period of the life-course, in which young men increasingly start taking up adult roles, like employment, and start working their way into adulthood.

This chapter first provides a summary of the main results, followed by a general discussion of the study's theoretical and practical implications. Following the outline of this dissertation, this chapter begins by describing the profiles of risk and protective factors associated with patterns of repeat offending in this sample of high-risk youths and subsequently zooms in on the interrelationship of employment and crime. This chapter concludes with a reflection on the methodological limitations of the study, and the implications for future research.

1.1 ASSOCIATIONS BETWEEN PERSONAL AND BACKGROUND FACTORS AND POST-TREATMENT RECIDIVISM

The sample is a multi-problem high risk group of juveniles, who - more often than not - grew up in disadvantaged or problematic family circumstances. At admission, between ages 15 and 17, about two thirds was characterized as highly neurotic, highly impulsive, and as having low self-esteem. Most boys exhibited antisocial behavior, or had problems with aggression and authority. Relatedly, their social skills were judged as inadequate, and problems existed in various domains, including in their families (one in four boys came from a *multi*-problem family), at school, and in relations with peers. In addition, based on self-report data from the institutional files we found that almost four in five (78%) had committed one (or more) offense(s) before admission. Nearly two thirds (62%) had already been convicted for a serious offense, and more than one in five (22%) had been convicted for a violent offense. All in all, the sample was characterized by structural and social disadvantage coupled with delinquent behavior in adolescence. These youths represent a small group of clinically phrased deep-end cases at risk highly of becoming criminal adults.

In describing post-release offending, the outcome was disaggregated in serious, violent and frequent recidivism. Six in seven individuals (86%) were convicted for any offense. Three

quarters (76%) were convicted for a serious offense. For half of the sample this also included a violent offense. Another - overlapping - half of the sample (47%) qualified as a chronic offender, having built up more than four convictions at the end of the 14 year follow up. Three in five individuals (62%) were incarcerated at least once. Conversely, although the vast majority of these boys could be considered serious recidivists, over time more than half of the sample developed into sporadic or even non-offenders.

Post-release recidivism outcomes were associated with individual characteristics. First, regression analysis showed that serious offending could be predicted from a number of well known risk factors, such as: low intelligence, anti-authoritarian behavior, and the number of pre-admission convictions for serious offending. Over and above these predictors, factors indicating that the treatment did not have the desired effect (in case of premature termination; or a negative evaluation of the course of the treatment) independently added to the prediction of re-offending. Second, poor aggression regulation, and limited insight in the consequences of one's behavior increased the risk of violent offending. Third, susceptibility to peer influence and antisocial behavior additionally predicted high frequent - or chronic - offending.

Overall, results show that not early offending as such, but early *serious* offending is a consistent predictor of negative post-release outcomes.

1.2 PROFILES OF PERSONAL AND BACKGROUND FACTORS ASSOCIATED WITH DEVELOPMENTAL PATHWAYS OF OFFENDING

In order to examine the extent to which predictions regarding offender groups derived from developmental theories apply to serious offending patterns in a group of high-risk juveniles, one has to go beyond mere recidivism and analyze developmental pathways of offending across age.

Using group based trajectory analysis, we find evidence that for this group of high-risk youths the overall development of offending from age 12 to 32 can be distinguished into five offending trajectories. Based on the level and shape we labeled these trajectories: adolescence-limited serious (ALS) offenders, low frequency desisters (LFDs), late escalating (LE), high-frequency desisters (HFDs), and high-frequency chronic (HFC) offenders. Together the low frequency groups - the ALS and LFD offenders - made up almost three quarters of the sample. Notwithstanding the findings from Chapter 1 indicating that recidivism was prevalent in this sample, the large majority of the youths released from the juvenile justice institution evolved into low-rate or non-offenders by age 32. In fact, from age 26 onward even the high frequency offender groups all follow declining trends. Thus, despite serious recidivism, which in many studies would be regarded as 'permanent failure', when followed up over an extended period of time, we find that by the time these youths reach their late twenties, the majority has 'recovered' in terms of the frequency of their registered offending.

One additional finding stands out. Although findings at the aggregate level showed that frequent serious offending before admission predicted persistence after release, developmental patterns of offending showed a more varied picture. HFD and HFC offenders - who experienced an early onset - indicated (different levels of) desistance around age 30. LEs - who were not assessed as high risk while in treatment - accelerated their offending (and eventually desisted) only well after adolescence. These findings show the value of our data covering a long period, while the offending prevalence rates in this high-risk sample allowed us to distinguish variability in the development of offending that would otherwise have remained unseen.

To assess whether individuals in the trajectory groups resembled the profile predicted by Moffitt's (1993) theory, we investigated the extent to which different subsets of stable individual characteristics were associated with each of the trajectory groups. Furthermore, we

examined whether these criminal trajectories differed in terms of content, and more specifically, in terms of the proportion of violent offenses.

Based on personal and background characteristics taken from the treatment files, four offender profiles were identified. The adolescence-limited and low frequency desisting trajectory groups shared a similar profile. They were characterized by dysfunction in terms of ADHD (type hyperactive/impulsive) and birth complications, but also by positive characteristics (e.g. good contact with peers) that possibly protected them from developing a more extensive criminal repertoire. The two high frequency groups had overlapping, but slightly different profiles: HFCs were characterized more by criminogenic social environments, and HFDs were characterized more by "poor" environments (unemployed parents coupled with poor conscience development). The late escalating offender group was most clearly set apart, characterized by "internal" risk factors, reflected in psychopathology, low neuroticism, risk-taking behavior and early alcohol abuse. The small group of high frequency serious offenders was thus not as homogeneous as suggested by Moffitt's typology. Instead, it showed more diversity - both in terms of developmental pathways, and the characteristics associated with these pathways.

In terms of the offending trajectory content, the results paint an again more nuanced picture. In all groups, the level of violent offending remained relatively stable over age, with the declining trends in offending primarily resulting from decreases in nonviolent offending. LE offenders, however, slightly outperformed the other offender groups in becoming disproportionately more violent with age.

1.3 EFFECTS OF EMPLOYMENT ON OFFENDING

The third study assesses the effect of employment on serious offending. The prior analysis showed that individuals who differed in terms of their delinquent development, also differed in terms of profiles of risk and protective factors. A between-group comparison on employment outcomes substantiates this classification, showing that adolescence-limited offenders averaged significantly higher in terms of employment participation (approaching normative levels) compared to all other subgroups. Given this heterogeneity across groups, the effect of employment on offending was analyzed within groups while remaining between and within-group selection differences into employment were also accounted for.

Also, typological theories predict that persistent serious offenders will respond less to employment than adolescence-limited offenders, who are better able to adapt to prosocial contexts (Moffitt, 1993). Life-course theory, on the other hand, emphasizes the effect of employment to be general, and conditional upon job quality and stability. To test these different assumptions several dimensions of employment were distinguished in the data, including: participation, frequency, quality, and stability.

At the aggregate level, employment histories of the juvenile justice release cohort were characterized by instability, reflected in many job switches interspersed with periods of unemployment. At a subgroup level however, there were substantial differences between offender groups. As said, only adolescence-limited serious offenders, constituting one third of the sample, showed an almost age-conform employment rate. Among LFC and HFD offenders (together constituting another third of the sample) employment rates were below average: with around 70 percent entering the labor market at some point during the follow up. The length of their job contracts did slightly increase with age. Given their highly problematic background characteristics, coupled with their active criminal careers, the LE and HFC offenders showed limited labor market perspectives. Indeed, employment rates among these groups were even lower, and even decreased with age.

Analyses of the effect of employment on offending provided support for both selection into employment, and - over and above this effect of pre-existing between-individual differences -

an independent effect of employment on offending; being employed was found to decrease the probability of offending. However, contrary to predictions assuming a gradual and long term effect, the findings only showed an instantaneous effect of employment on crime. The lack of a more gradual or long term effect may be due to the sample's high-risk nature, as the overall intensity of involvement in employment was considerably lower than what is average in the Netherlands. Only few men were able to hold onto a particular job for more than two years in a row.

While employment had a negative and instantaneous effect on offending, the effects of regular employment were stronger than for temporary job agency employment. This suggests that characteristics of the job such as perceived quality, better prospects, or higher levels of informal social control at the workplace - providing the individual with a stake in conformity - are important in explaining the relationship between employment and crime. Findings among the more chronic groups were mixed, also showing an effect of temporary employment on offending, perhaps reflecting an effect of job reintegration programs for these particular subgroups.

1.4 EFFECTS OF CONVICTIONS AND INCARCERATION ON EMPLOYMENT

Employment and offending are commonly assumed to be reciprocally related (Hagan, 1993; Uggen & Wakefield, 2008). Those employed are less likely to become delinquent, and conversely, those who have a criminal record are less likely to become employed. In the final empirical chapter we analyzed the effects of conviction and incarceration on employment. Incarceration not only instantaneously interrupts a number of life-course domains (schooling, employment, and relationships), but may also reduce future opportunities to reconnect to them.

Static theories argue that any association between incarceration and employment results from underlying between-individual differences in self-control (Gottfredson & Hirschi, 1990), selecting an individual into antisocial behavior, delinquency, and incarceration, as well as into disadvantaged labor market positions, unstable jobs, and unemployment. Dynamic theories on the other hand suggest that incarceration may affect employment, and that this influence remains even after between-individual differences (such as educational attainment and juvenile delinquency) between those who are – at some point - incarcerated and those who are not are held constant.

Assessing a sample that was characterized by low school attainment, poor educational prospects, and often delinquency, this study identified four employment trajectory groups: a non-participating group, employment 'dropouts', a delayed onset group, and a normative group. The two upward trajectories (normative and delayed onset) together comprise three fifths of the sample, and represent a continuous range of relatively successful employment patterns (in terms of yearly participation, as well as the number of days employed) starting from ages 18 to 26. At the lower 'extremes' were the employment 'drop-outs' and non-participating men, who also displayed the highest incarceration rates. Given that the majority of the sample was expected to be in the lower strata of the labor market when entering adulthood, actual developmental patterns indicated heterogeneity, which partly related to pre-existing characteristics (such as intelligence, school attainment, and social skills) that averaged significantly lower among chronically unemployed men. Given this heterogeneity, the effect of convictions and incarceration was analyzed within groups.

Convictions had a consistent negative effect on employment participation among all active employment groups. Controlling for these effects, only among the 'top' 20 percent of men whose active employment trajectories started at relatively early ages (around age 20), incarceration further reduced the probability of being employed in the subsequent year. This seems in line with human capital theory that suggests a negative impact of incarceration on

job skills acquired through prior employment experience. However, the results could also reflect a floor effect - if the probability of being employed cannot be further reduced, the effect of incarceration on employment remains absent.

In sum, the effect of incarceration differed across employment trajectories. Among those who had a more successful employment career, the 'denting' effect of incarceration was only temporary. The effect of first incarceration was strongest for those with prior employment experience (controlled for age, detention length, and employment propensity).

2 Discussion

How well do adolescents fare once they leave a juvenile justice institution? To what extent do their problematic backgrounds and personal characteristics relate to future outcomes? Do all develop similarly? Are they able to connect to age-conform transitions? These questions are of central concern to criminologists and policy makers. In answering these questions, risk factor prevention approaches and developmental theories stress the role of early antisocial behavior as a marker of persistent delinquency, whereas life-course theories stress the continuing role of changing social environments. To different degrees both developmental and life-course perspectives contribute to the general idea that an individual's development unfolds through "interactions between individuals and their environment, coupled with the factor of chance" (Laub and Sampson, p.286, 2003).

This section discusses how the empirical findings relate to the hypotheses that were tested. Summarized, these hypotheses were as follows. First, personal and background characteristics are predictive of post-treatment serious offending outcomes. Second, personal risk profiles are associated with developmental patterns of offending. Third, employment participation reduces the probability of offending. Fourth, incarceration reduces the probability of future employment participation over and above the effect of being convicted.

2.1 AGAINST THE ODDS

The development of problem behavior and delinquency over the life-course is often described as a function of risk and protective factors. The risk factor paradigm claims that risk factors identified among juveniles are associated with serious adult crime. Juveniles who possess certain personal or background risks are more likely to develop into serious, violent and persistent adult offenders. Did the findings support this claim?

To some extent, they did. A number of well known personal and behavioral risk factors, such as low intelligence, authority problems, and prior convictions, were found to be associated with post-release serious offending outcomes in the current sample. Most risk factors were associated somewhat differently to different outcomes, but *serious* delinquency before admission was found to be a consistent predictor of both serious, violent and persistent offending. Relating personal characteristics to long-term offending trajectories, those who in spite of their high risk turned out to be low frequency offenders were characterized by profiles that also included *protective* factors: they had relatively well developed social skills and a more prosocial environment. High frequency offender groups, on the other hand, were characterized by *risk* factors: some grew up in criminogenic social environments, while others were diagnosed with comorbid psychopathology.

Some findings however were more unexpected. Given that the entire sample under study is characterized by troubled backgrounds to an extent that warrants treatment in a juvenile justice institution, these youths would probably all be regarded as candidates for becoming persistent serious offenders in a general population sample. Against the odds, however, the vast majority of these high-risk youths over time developed into low-rate or non-offenders.

Even among those 'persisting' in frequent serious offending, there is a considerable decline in offending around age 30.

Thus despite their common high risk backgrounds these juveniles' long-term outcomes indicated large variability in terms of frequency, seriousness, persistence, and levels of 'recovery' from offending. The ability to prospectively predict long-term developmental patterns in offending was not tested, but the explained variance in regression models predicting (serious, violent or chronic) recidivism was generally modest. This suggest that, while helpful in differentiating this group of multi-problem youth, we must not solely rely on static factors if we are to understand long-term patterns in offending.

2.2 DEVELOPMENTAL PATHWAYS

Typological theories claim that different etiologies are needed to explain distinct developmental patterns of offending. Besides claiming that the overall continuous distribution of offending can be disaggregated in different trajectory groups, these groupings are assumed to differ in terms of individual, behavioral, or childhood contextual risk factors. Typological theories in other words suggest that the variability in offending with age is at least partly due to between-individual differences.

Results in this thesis show that empirically identified offender groups differed in terms of corresponding offender profiles. These 'subtypes' were characterized in theoretically meaningful ways. Three findings are particularly important. First, given their early problem behavior and troubled family backgrounds, according to Moffitt's theory perhaps the entire sample would have to be categorized as life-course persister. Instead, within a period of 14 years the vast majority of the sample evolved into low-rate offenders, exhibiting far less *continuity* than expected. Second, although Moffitt's theory predicts a small, homogeneous group of persistent offenders, even within this narrow sample of high-risk juveniles the identified subset of high-rate offenders was surprisingly *heterogeneous* - not only in terms of outcomes, but also in terms of individual characteristics. Gradual differences in criminogenic or disadvantaged social environments were associated with levels of persistence. Within a small group of late-escalating offenders, as they entered adulthood their antisocial inclination seemed to be kept in hand while under civil measure, but the sudden disappearance of such a protective environment seemed to give way for an escalation of offending. A salient feature of the identified subgroups is that birth complications characterized the least persistent offender subgroups, whereas in Moffitt's taxonomy it is claimed to predict a life-course persistent pattern. Third, Moffitt's theory invokes "heterotypic continuity" to explain the more versatile, antisocial behavior of life-course persistent offenders across time, which is partly reflected in their assumed overrepresentation in violence (Moffitt, 1993). Narrowing the dependent variable to serious offending, this claim could only be tested within distinct developmental patterns in more serious forms of delinquency. Among all subgroups, property crimes made up the highest proportion. However, especially among the more persistent serious offender groups (LE and HFC), the number of offenders involved in violent crimes (participation rates) remained disproportionately high. This seems in line with Moffitt's assumption, but the fact that these men overall were more actively involved in offending (and the crime-mix remained similar over time), suggests that violence was merely part - and not characteristic - of versatile high-frequency offending. Finally, the results clearly indicate that even the high-frequency offenders to some extent "recover" in their late twenties. This seems in line with Laub and Sampson (2003) who found that all offenders eventually desist, because they become increasingly sensitive to effect of formal and informal social control with age. Given the broad range of serious offenses considered in the outcome measure, allowing to detect heterotypic continuity over time, it is unlikely that desistance from serious offending is in fact a shift to nonserious offending (see also Sampson and Laub, 2005 - who reanalyzed their

trajectories for nonserious offending). On the other hand, for a small subset of high-frequency offenders, the serious offending levels had not yet extinguished at age 32, but extrapolating their development they are expected to desist eventually - and also at an early age than suggested by Moffitt, who expects persistent offenders to continue offending well beyond the age when most men desist (2006).

2.3 DYNAMIC EFFECTS AND CHANGE

In explaining delinquency over the long term, the prediction of change and continuity should, as said, not rely on static factors alone. Instead, life circumstances are assumed to have an effect on offending, that remains after static factors related to criminal propensity are held constant (Blokland & Nieuwbeerta, 2005; Sampson, Laub & Wimer, 2006). Like marriage, employment can lead to changes in offending. More specifically, the employment literature suggests that getting a job is not reducible to selection bias or individual choice (Laub & Sampson, 2003). In explaining the effects of employment on offending, over and above this selection bias, life-course theory combines concepts from different theories. Doing so, it suggests that getting a job has an instantaneous effect (changed routine activities; direct social control at the workplace), as well as a long-term effect (increased responsibility; social capital) on offending. First, results in this dissertation consistently showed a *selection effect*. Offender groups characterized by more protective factors were not only shielded from extensive offending, but also selected themselves into more successful employment outcomes. Second, over and above these selection effects, findings mainly corresponded with theories that suggest an *instantaneous effect* of employment on crime, such as routine activities theory (Cohen & Felson, 1979) and strain theory (Agnew, 1985). Possibly, through restructuring these men's daily routine activities, and/or fulfilling their economic needs, employment reduced the likelihood of offending. Third, regular employment - reflecting higher quality, providing better long-term prospects, and possibly better wages - had a stronger negative effect on offending than temporary job agency employment, but only among those with less extensive criminal careers. Employment stability had no additional effect. Thus, Sampson and Laub's (1993) claim on the role of investment in *social capital* was only partially supported. This is not surprising, considering that in this high-risk sample most employment careers were interspersed with periods of unemployment.

In sum, for these high-risk young adult men the effects of employment on offending are not unambiguous. While basic predictions made by dynamic theories on the effects of employment on offending were supported, specific life-course theoretical notions on the effect of social capital on crime were not supported with regard to high-frequency offenders who seemed to have most difficulties to hold onto (and reenter) regular jobs. Findings suggest a discrepancy between those who are able to keep a job and those who are not. Falling in the latter subgroup, high-frequency offenders, possibly their unemployment is reinforced by the negative consequences of their delinquent behavior - among which of particular interest is incarceration.

2.4 RECIPROCAL EFFECTS AND CONTINUITY

While dynamic theories tend to over-emphasize the possibility of change, criminal behavior - and the societal reactions to criminal behavior - may also increase the likelihood of continuity. Via the process of *state dependence*, delinquent behavior has a causal effect on subsequent delinquent behavior by eroding an individual's bond to conventional society. State dependence predicts that incarceration reduces social capital by blocking access to pro-social networks (Sampson & Laub, 1993), through the segregation during incarceration as well as through social exclusion afterwards (Becker, 1963).

As expected from labeling theory, convictions had a consistent negative effect on employment participation for the entire sample. Additionally, incarceration had a short-term negative effect on employment, but only for those with a normative employment career. The way these findings relate to theoretical predictions, such as posited by state dependence, is not immediately obvious. Findings support human capital theory that posits that the effect of incarceration on employment depends on job skills acquired prior to incarceration. However, the effect was short-term and not very long after being incarcerated, the individuals' probability of employment restored quickly to pre-detention levels. One explanation for these surprising findings is that most previous studies on the effects of incarceration on life-course outcomes are from the U.S. (Western, 2006) where prison sentences are long, and also impact on the civil rights and social entitlements of the individual. Prison sentences in the Netherlands are relatively short and may therefore very well be less disruptive. Also, among men in the delayed onset employment trajectory incarceration often preceded the employment career. This 'phase difference' may have buffered the effect of incarceration, or postponed the onset of an employment career - given that the employment registration system had full coverage in later years, we may also have underestimated employment frequencies for some individuals during the onset of the employment career.

Unsurprisingly, no effect of incarceration on employment was detected for those who displayed continuously low job prospects. Also, no effect of incarceration on employment was identified for those who at some point 'dropped out' of employment. The critical question here is, what explains the fact that they failed to reconnect to the labor market.

A first possible explanation is that these men, characterized by low employability (low intelligence, poor school attainment, limited social skills, authority problems), selected into temporary and low quality jobs. Building up less 'valuable' employment experience, these jobs may not have functioned as a stepping stone towards better jobs with long-term prospects. In fact, lingering in low-skilled and unstable jobs, it may become increasingly difficult for these men to find employment as they became older, because the same work can also be done by younger workers who are more attractive to employers for their lower wages.

A second possible explanation for the sharp discrepancy in employment groups is heterotypic continuity. Repeated failure in holding onto jobs may relate to, among others, problems at work. These problems may again result from a variety of endogenous circumstances (that to different extents result from selection bias), such as: a lack of motivation, crime at the workplace, or a drug related lifestyle. As these issues were beyond the scope of this thesis, they warrant further research.

3 Implications for policy

The findings in this thesis are of value for those in the criminal justice field who are involved in intervening in the lives of high-risk juveniles. While this study was not designed to evaluate treatment for boys in juvenile justice institutions, the discussion of findings within the framework of different criminological theories speaks on possible avenues for future intervention strategies.

First, post-treatment recidivism rates indicated that only few men refrained from offending entirely - a picture that remained similar after narrowing the outcome measure to only serious offenses. Several risk factors were found to be associated with the level of persistence and seriousness of post-release offending, among which the number of pre-treatment convictions for serious offenses most consistently predicted negative outcomes. In as far as individuals within this group of high-risk juveniles are differentially allocated to specific intervention programs, the prior *serious* convictions would be a first candidate.

Despite high levels of recidivism, when analyzing subgroups of offenders following distinct developmental patterns of offending, this study found that approximately one third of the sample only incidentally reoffended, and another third developed into low-rate offenders who eventually recovered. Apart from characteristics putting them at risk for further offending, individuals in both groups - together comprising the majority of the sample - were also characterized by protective factors. These protective factors pertained to both internal characteristics (good conscience development) and social embeddedness (good contact with peers, no authority problems). These protective factors possibly 'buffered' the effect of (less distinctive) risk factors. To some extent, a protective social environment seems to be a prerequisite for successful intervention in the criminal career (Katsiyannis & Archwamety, 1997). Practitioners may act upon this, by focusing on the interactions between these juveniles and their social environment.

Those juveniles who developed into high-frequency persistent offenders, the remaining third, were either characterized by criminogenic environments - associated with early chronicity -, or by comorbid internal problems (psychopathology, a lack of fear, and early alcohol abuse). Treatment progression in the late chronic group was judged 'average', showing no sign of their future criminal development. In response to the results, some practitioners suggested that this group might best be described as psychopaths in the bud, who are able to successfully feign progress in treatment. Prospectively identifying these offenders may remain difficult, but aftercare programs coupled with follow-ups could perhaps mitigate the long-term serious outcomes for this group.

In addition to targeting early risk factors, the investment in educational and employment attainment is salient for high-risk juveniles (Heckman, 2006). Educational attainment and employment rates in this study were below normative levels. Employment participation developed differently across groups up till age 32. Two fifths of the sample turned out to be at the lower tail of the distribution. The employment careers of these men were characterized by (almost) continuous unemployment (some were temporarily employed during their mid twenties) and deteriorating prospects. Having said so, three fifths experienced relatively successful transitions between ages 18 and 25. However, their probability of being employed never reached population averages, and reflected moderate levels of instability.

Analyzing the effect of employment on offending within different offender groups, the effect of employment was consistently negative, and particularly strong for regular (often non-temporary) jobs. However, while many men were employed at least once during the follow up, few men were able to hold on to their job. To some extent this resulted from obstructions caused by convictions and incarceration, but it also suggests that - despite their relatively successful employment careers - these men had not become 'model citizens'.

Given the beneficial effect of employment, but also the difficulties these men experienced in keeping employed, interventions should not only focus on getting these men a job, but perhaps even more so, on keeping them employed.

4 Implications for future research

The strengths of this study lie in its high-risk sample, its rich and validated information about personal and background characteristics, and the detailed longitudinal data on delinquency and employment over a long period of time. Despite its unique dataset, this study also has a number of limitations. First, risk factors - although helpful in describing offender subgroups in terms of qualitative differences - were assessed long before some outcome measures materialized. In order to increase understanding about the mechanisms at play, future research should also focus on more contemporaneous risk factors, like psychological changes (Maruna, 2001), possibly reflected in motivation to change, or levels of self-efficacy. Second,

employment data was extracted from the databases of the Dutch Ministry of Social Affairs and Employment, allowing to reconstruct detailed employment histories over an extensive period of time. However, at the same time the outcome measure pertained to registered and thus legal employment. Especially in this low educated, high-risk sample with limited success in regular jobs, respondents may (also) have selected into opportunities to work in illegal jobs in the so-called black labor market. Third, although employment data collected for this study was highly detailed, it lacked qualitative information, such as perceived quality, feelings of responsibility, or the extent to which individuals perceived their work as providing a stake in conformity (Laub & Sampson, 2003) - factors that are expected to shed light on offender group differences in the relationship between employment and crime. Fourth, offending trajectories unfold in a continuous dialogue between individuals and their environments in a variety of adult life domains. Models should thus not only incorporate employment, but also other dynamic factors, such as marital relations, parenthood, cohabitation, and substance abuse (alcoholism and drug addiction), in order to better explain offending.

To solve at least some of the aforementioned limitations, a follow-up project (*17up*) has initiated in 2010 in order to enrich the dataset with interview data. This study also includes high-risk females, who - similar to the male sample discussed here - were treated in a juvenile justice institution during the mid 1990s. The interviews aim to reconstruct the life histories (including non-register data on life events, such as black labor, cohabitation, children, health, drug use) of these high-risk juveniles, and assess psychological, behavioral and contextual characteristics through questionnaires.

Lastly, this study also had a number of methodological limitations. First, the prospective validity of serious offender profiles was not tested, and the use of these profiles for risk assessment may be limited. Second, in the analyses on the effect of employment on offending, the level at which employment had an effect on offending seems to reflect a floor effect - it did not further reduce the probability of offending within the adolescence-limited group. Similarly, in the analyses on the effect of incarceration on employment, the absence of an effect of incarceration on employment within the 'low' employment groups seems to be a result of employment participation hitting the bottom end of the distribution. Third, in the analyses on the effect of employment on offending, time-windows were used of one year. These intervals may be too long and causality within one year of the observation remains undetected (events seem to coincide). Future research should investigate this using more fine grained periods. Third, the use of a minimum employment measure as the dependent variable in the latent class trajectory analysis (being under a job contract of any duration at least once during the year) lead to inflated participation rates. For example, one week of employment in an entire year should perhaps not count as 'meaningful' participation. Frequencies were particularly low in the employment 'drop-out' trajectory. Fourth, the analyses on the effect of incarceration on employment participation raised some concerns about the model's ability to detect effects of incarceration. Although the unexpected decline in the 'drop-out' trajectory did not seem to result from incarceration, it remained unclear to what extent incarceration shaped the employment patterns of other subgroups. These analyses should thus be considered as a first exploration. For future research, using matched comparisons would improve the detection of the effects of incarceration, by matching incarcerated individuals without work experience, to non-incarcerated individuals without work experience. In this study sample size was not sufficient to perform a matching analysis.

5 Conclusion

In sum, for this group of highly disadvantaged young adult men, findings learn that the road to a conventional life can be long and difficult. Given that all men had early behavioral problems and troubled backgrounds, the odds were against them making a successful transition into adulthood. The outcomes of the current study however paint a more complex picture. Initial recidivism was high, but the majority of these men desisted from offending before age 30. Employment participation lagged behind the population average, but still more than half of the sample did transition into employment during their mid twenties. Noticable is the overall instability in both delinquency and employment - in general their lives seem to get 'better' over time, but change comes with (many) ups and downs.

In testing assumptions derived from developmental and life-course criminology, findings provided support for a 'mixed' explanation. Qualitative differences in terms of underlying personal profiles characterized individuals following different developmental patterns of offending. These personal profiles were associated not only with offending, but also with employment outcomes. Employment however had a consistent negative effect on offending. The extent of this effect did differ across groups.

Similar to Moffitt's (1993) developmental theory, results showed that a criminogenic environment was associated with an offense pattern that - despite a decline around age 30 - persisted well beyond the age when most men desisted (Moffitt, 2004). However, given that perhaps the entire sample should be considered candidates for the life-course persistent pattern, results were inconsistent with Moffitt's claim that the life-course persistent pattern is 'driven' by selection. First, results showed that static risk factors alone were not sufficient to explain the different offending patterns over the long-term. Second, given the 'protective' effect of employment on offending across groups, these high-risk men seemed to benefit more from prosocial opportunities than originally proposed by Moffitt.

In line with life course theory (Sampson & Laub, 1993) the effect of employment on desistance was particularly strong for *regular* employment. This stresses the role of "a good job" (e.g. commitment, responsibility, good prospects, higher wages), rather than job stability, especially because in this sample most - even regular - employment careers remained highly unstable over time. A general effect of cumulative disadvantage (Sampson & Laub, 1993) was not found. The effect of incarceration was only detected for those with prior employment experience, causing a short-term 'dent' in the employment careers, rather than a negative spiral that increasingly deteriorated future opportunities. However, this study may have missed out on such effects due to floor effects, as is discussed in the aforementioned implications.

All in all, our findings on the development of the lives of these men, who came from such troubled backgrounds and all had severe behavioral problems, seem encouraging. One third is doing fairly well quite soon, one third needs more time to decrease their offending, and one third remains highly problematic at high (although eventually declining) offending rates and with low or no employment. However, we see only the officially registered offenses, and we see only official employment. We must realize therefore that our findings paint only the outside picture of these men's lives. We may suspect that these findings relate to more inward aspects of their lives too. However, whether what we perceive as change, are in fact 'turning points' or 'identity shifts', both sounding deceptively like a sudden epiphany or a swift and sweeping radical change, is something we do not know. The roads to change are in all likelihood varied, and may have ups and downs. As Jamie said: "My life now is a success, but every single day I have to work on it to keep it that way".

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