Chapter 6

General Discussion
6.1 Introduction

Using a large sample of 498 juvenile sex offenders from childhood to young adulthood, this dissertation explored criminal and societal development from age 12 up to age 28. This study addressed two research aims: (i) describe the criminal careers of juvenile sex offenders and (ii) investigate whether current theories on criminal development over the life course explain juvenile sex offenders’ criminal career development.

A longitudinal dataset containing information about the sample of juvenile sex offenders was used to address the two research aims. All analyses were carried out for three subtypes within the sample of juvenile sex offenders. The first subtype included juveniles who had committed the sexual offense against a child (child abuser); the second subtype included juveniles who had offended against a peer or older person (peer abusers); and the third subtype included juveniles who had committed the sexual offense with at least one co-offender (group offenders). The dataset used for this dissertation was not only large but also rich as it covered information on dynamic as well as static risk- and protective factors over a mean follow-up period of 14 years, well past the emerging adulthood. This makes the dataset uniquely suited to investigate our research aims.

In this chapter, a summary of the main results will be given, followed by a discussion of the theoretical and practical implications of the results. The chapter concludes with a reflection on the key strengths of this study as well as the limitations and implications for future research.

6.2 Summary of Results

6.2.1 Long-Term Criminal Careers and Background Characteristics

Literature and developmental criminological theory has lead us to assume that juvenile sex offenders are specialized chronic offenders. To test this assumption we first studied the sample members’ sexual offending trajectories; this enabled us to investigate to what extent such sexual specialization indeed exists. The descriptive statistics showed that most individuals re-offended (74%) to different types of offenses. However, only
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12% had committed at least one sex offense after their index sex offense. This is comparable to the rate of sexual re-offending found in prior empirical accounts (e.g., Caldwell, 2002, 2010; Zimring et al., 2007, 2009).

To allow heterogeneity in all subsequent sexual offending for these individuals, this dissertation next used group-based trajectory analysis. Two sexual offending trajectories were uncovered: high-rate desisters (HRD) and sex offending adolescence-limited offenders (SOAL). Most juvenile sex offenders were in the SOAL-trajectory ($n = 446, 89.6$%), which peaked in adolescence and declined shortly thereafter followed by desistance from sex offending after age 20. The HRD-trajectory was comprised of a small subsample ($n = 52, 10.4$%), who continued sexual offending to the end of the observation period, even though sex offending frequency decreased. Half of the individuals in the HRD-trajectory even continued sexual offending in adulthood. These findings indicate that overall the sex offending trajectories reflected very little specialized sex offending: only very few continued sexual offending in adulthood ($n = 27$ of the $52$ individuals in the HRD-trajectory, $5.4$% of the $498$ juvenile sex offenders), and those who did, do so at decreasing rates.

The next step was to inspect whether the assumption about offender groups derived from the developmental theory by Moffitt (1993, 2006) applied to the general offending patterns of juvenile sex offenders. To do this, we investigated whether the small group of relatively more persistent sex offenders belonged to the group of chronic offenders as predicted by Moffitt, and whether their profile matched the one predicted by her theory. Evidence was found for five distinct general criminal career trajectories, labeled: low chronic (LC), late bloomers (LB), adolescence-limited (AL), late starters (LS) and early starters (ES). Almost $90$% of the sample was in a low frequency group (AL, LC and LS) and four out of five trajectories show a decrease after the peak age. This indicates that for the current sample of juvenile sex offenders no life-course-persistent trajectory was found, as hypothesized by Moffitt (1993). Thus, our findings contradict Moffitt’s (1993) assumption that juveniles committing serious offenses (such as sexual offenses) are likely to do so within a life-course-persistent criminal career. Although overall recidivism rates were high, we found most of the juvenile sex offenders to be part of a low frequent offending trajectory. Most sample members were in the AL-trajectory, characterized by a peak at age 15 and desistance after age 20. The pattern of this AL-trajectory was similar to the shape hypothesized for the adolescence-limited
offenders in the dual taxonomy by Moffitt (1993), however the peak age was younger for juvenile sex offenders. Additionally, the distribution of the offender types and the content of the offending trajectories were examined. Following Moffitt (1993) one might still expect sexual offending to be more prominent in the chronic trajectories. However, it was actually the AL-trajectory that was mostly defined by sexual offending, while the more chronic trajectories displayed more mixed types of offending. Thus, although the shape of the AL-trajectory found for juvenile sex offenders resembled the AL-group by Moffitt (1993), the profile of offense type was found to be the opposite as expected on the basis of Moffitt’s theory.

Next, to study whether juvenile sex offenders resemble the personality profile predicted by Moffitt’s theory (1993), we explored how different subsets of individual characteristics were associated with the individuals in the offending trajectories. When taking into account these stable individual characteristics, our AL-offenders seemed even less similar to the AL-offender group as predicted by Moffitt (1993). The juvenile sex offenders in the AL-trajectory were characterized by a diverse selection of risk factors, such as birth complications, enuresis, pervasive developmental disorder, poor social contact with peers, and sexual abuse by a family member.

Child abusers were more often found in the AL-trajectory, while peer abusers were mostly found in the LS and ES-trajectory, and the LC-trajectory was characterized (although not exclusively) by group offenders. Individuals within the LC-group were often impulsive, extrovert, and had relatively adequate social skills. Moreover, many individuals within this group were diagnosed with a conduct disorder.

Overall, we found the criminal career patterns to only partly correspond with the general criminological typology by Moffitt (1993). The juvenile sex offender AL-trajectory had a peak in adolescence and a decline thereafter, and the LC-trajectory had a chronic and steady offending career over time. However, the trajectories comprised offenses which were different from the ones hypothesized by Moffitt (1993). In addition, the individual characteristics also did not correspond with Moffitt’s (1993) theorized characteristics. Hence, the general typology by Moffitt (1993) appears only very partially applicable to juvenile sex offenders’ criminal career patterns. For the three subtypes we only found the child abusers to be more often following a distinct criminal career pattern, the AL-offenders. The remaining two subtypes were not explicitly associated with one criminal trajectory.
6.2.2 Criminal Careers and Life-Events

In chapter 2 we had established that juvenile sex offenders cannot be described as specialized chronic sex offenders. Five different offending trajectories were found that only partly corresponded with the pattern hypothesized by Moffitt (1993). Moreover, the characteristics Moffitt (1993, 2006) assumed for her trajectories did not relate to the characteristics found in the juvenile sex offending trajectories. As such, the theory by Moffitt (1993) cannot explain the criminal career of juvenile sex offenders. Therefore, we moved to testing general criminological life course theory to examine whether societal development (i.e., marriage, becoming a parent and finding employment), which is associated with a decline in offending for general and high-risk offenders, is also associated with the decline in offending for juvenile sex offenders in emerging adulthood that was established in chapter 2. First, objective registered information on offending, marriage, parenthood and official employment development was described. Similar to findings for samples of high-risk individuals, juvenile sex offenders were found to fulfill adult roles less adequately than average emerging adults do (e.g., Van der Geest et al., 2011; Verbruggen et al., 2012; Zoutewelle-Terovan et al., 2012). Entry into employment appeared normative and perhaps even somewhat elevated at younger ages. However, employment rates quickly stagnated thereafter. From age 25 onwards, a steady 40% of varying sample members were unemployed. This rate is comparable to that of men who were institutionalized as juveniles (van der Geest et al., 2009), nevertheless it is much higher than the unemployment rate of average Dutch males of the same age group. This high unemployment rate corresponded with the often short employment contracts (on average no longer than half a year) found in the sample. All in all, the employment career of juvenile sex offenders emerged as fractured: it was found to be interspersed with periods of unemployment. With age, labor market participation declined.

A similar pattern was also found for marriage, in the sense that, after a certain age, no new marriages were observed. The onset for parenthood was for some juvenile sex offenders very early, as they had their first child at a younger age than the average Dutch male (CBS, 2013c).

No significant differences were found between the child abusers, peer abusers and group offenders for employment and marital development. Only child abusers had their
first child at significantly younger ages than the other two subtypes.

Next, the association between life-events and the juvenile sex offenders’ criminal careers was explored. The analyses showed that, of the three life-events, only employment was associated with a reduction in offending for the complete sample of juvenile sex offenders. The reduction was more than a third overall, ranging from more than 60% reduction in group offenders, 37% for peer abusers and a null effect in child abusers. Therefore, group offenders benefited most from employment and even significantly more than child abusers. Interestingly, child abusers were found to be the only subtype where becoming a parent significantly increased their chances for continued offending. These findings show differential effects between the three subtypes: child abusers appear to differ from the other two types in the sense that they do not benefit from employment and that their probability of offending increased after becoming a parent.

Overall, results show that employment was associated with a sizeable reduction in offending, despite the low and fractured labor market participation of juvenile sex offenders. Group abusers appeared to benefit most from the impact of employment on their offending career. Equally important is the finding that juvenile sex offenders appeared to be heterogeneous group in the extent to which they benefited from the transitions we studied.

6.2.3 The Effect of Employment Quality and Duration on Offending

In the fourth chapter we further investigated the employment-offending association. Life course theory emphasizes that the influence of employment on offending is conditional on employment quality and stability. Sampson and Laub (1993) hypothesize that employment will decrease offending due to the social capital it produces. However, not all employment generates the same amount of social capital. Employment quality can entail the satisfaction an individual gains from the employment, the amount of financial benefits received, or whether there are opportunities for promotion in the company.

In the Netherlands, employment through a temporary employment agency is often limited to a certain period of time, with little prospect of continuation of the em-
employment contract. Also, because of the short time span of temporary employment, embeddedness within the social culture of the workplace is limited, as the individual is paid by the employment agency and thus not part of the workforce of the company. Therefore, employment through temporary employment agencies may be assumed to generate less social capital than regular employment and therefore have less impact on the reduction of offending. This is the first employment quality measure tested in chapter 4. The second measure tested was employment stability or duration. If an individual is employed for a longer period, embeddedness within a company and the labor force becomes stronger, generating more social capital. A longer employment contract span may also be a marker of employment satisfaction.

The first and second measures were tested at an aggregate level (the entire sample of juvenile sex offenders) as well as at a subtype level (the three juvenile sex offender subtypes: child abuser, peer abusers and group offenders).

On the one hand, analyses of the association between employment quality, stability and offending showed evidence that social capital was a likely influential mechanism, as being employed by a regular employer was associated with a decrease in the offending probability and temporary job agency employment was not. On the other hand, evidence was also found for in instantaneous effect of employment on offending, as employment stability was not significantly associated with offending. Nevertheless, if one would assume an instantaneous effect, as postulated in the routine activities theory (see chapter 4), it would be likely that temporary employment would also have a significant decreasing effect on offending. However, this effect was not found for this sample. Thus, the social capital mechanisms received more support in our study.

Analyses of the employment-offending association were also conducted on a subtype level. Regular employment was found to have a decreasing effect for all offender types. However the association was only significant for peer abusers and group offenders. No significant association was found between employment duration and offending for any of the juvenile sex offender subtypes.

To conclude, regular employment was associated with a decline in the offending probability, while employment by a temporary job agency was not associated with such a decline. This finding supports theories emphasizing the importance of social capital. The fact that no association was found between employment duration and offending is likely caused by the short employment contracts. In addition, the fact that
a reducing effect of employment on offending was found despite the short employment contracts implies support for routine activities theory. Peer abusers and group offenders benefited significantly from regular employment, while child abusers did not.

6.2.4 Age Graded Effects for Employment and Offending

The relationship between employment and offending and vice versa is complex due to interactions, such as age and employment, the bidirectional nature of the employment-offending association (e.g., Pager, 2003; Apel & Sweeten, 2010), and the process of state dependence. In chapter 4 the association between employment (stability) and offending was studied, the focus of that chapter was on the ‘overall’ effect of employment on crime assumed for all individuals and age-groups. Although chapter 4 had found an association between employment and offending, the analysis was in a sense limited as it did not model the abovementioned complexities of the employment-offending association. Therefore, the fifth and final empirical chapter of this dissertation explored the employment-offending association in more depth by modeling the bidirectional nature of the relationship, including state dependence parameters, and the interaction with age and employment duration.

First, the study focused on the bidirectional nature of the employment-offending association. Bidirectionality was confirmed by the model as employment was found to significantly reduce offending and offending was found to significantly reduce employment. Employment appeared to be persistent: if a sample member was employed the previous year, the probability of future employment increased. The same was found for offending; if an individual had prior convictions the chances of future offending increased. These findings supported Sampson and Laub (1993), with employment having a cumulative effect on future employment. The process of cumulative disadvantage by Sampson and Laub (1993) can at the same time be recognized in the first findings of chapter 5, since prior offending was found to increase the chances of future offending. Furthermore, the hooks of change perspective postulated by Giordano et al. (2002) and Sampson and Laub (1993) is arguably also confirmed by the results, as individuals who manage to gain employment experience a reducing influence of offending and an increasing likelihood of future employment, steering them towards desistance.

Next, age was added to the bidirectional employment-offending association. The
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analysis confirmed the theoretical assumption that with increasing age, employment has a stronger decreasing effect on offending. This association switched from a small positive (increasing) association at younger ages to a large negative (reducing) association in adulthood. The opposite was found for the influence of offending on employment, as the negative effect at the younger ages becomes more positive until a non-effect is reached after age 23. This seems counter-intuitive since one would expect that at older ages offending would have a stronger negative effect on employment, since adults are held more responsible for their own actions than youths. It could be that the most criminally active individuals are not employed in adulthood, thus no effect can be uncovered statistically.

Additionally, an aging-into employment effect was found, as the influence of previous employment became stronger (more positive) as the men aged. This finding indicates the salience of employment for older sample members in the process of desistance. For offending it was found that the effect of previous offending became smaller (more negative) with age, this denotes an aging-out of crime effect where previous offending will impact future offending less and less over time. Overall, we found in the first two analyses that the employment-crime association is bidirectional and moderated by age, with strong state dependence.

In the last analysis of chapter 5, we examined whether there were differential effects for employment periods of different duration. Specifically, we examined whether findings differed if juvenile sex offenders had been employed for shorter or longer periods over a year. We established that people age out of crime and into employment regardless of the period of time they are employed in a certain year.

The effect of employment on offending becomes more negative with age for all measures of employment duration. In the empirical and theoretical literature, a possible increasing effect of intensive (full-time) employment on offending was hypothesized for adolescents and young adults. In contrast, we found that only a few days of work during a year had an increasing effect on offending for the younger age cohorts, while intensive work had no effect. The reason for this finding remains unclear. It is possible that young adults do not have enough time to spend with peers due to intense work, which may result in limited offending opportunities. For the influence of offending on employment, we found for those who had minimal employment over a year (10 days or less), little effect at the younger ages, but after the ages 22 and 23 the effect of
offending switched from a negative to a positive effect, where the influence of offending on employment increased with age. Thus, at older ages, the individuals who offend are more likely to find shorter employment contracts. For individuals employed for 180 days or more per year, the effect of offending on employment was negative and decreases even more with increasing age. These findings suggest that offending primarily affects the chances of finding and keeping long-term employment.

In conclusion, we found that the employment-offending association is bidirectional and primarily moderated by age. Employment was found to have a negative influence on future offending, this influence increased at older ages. The effect of offending on future employment was more complex, as the effect depended on whether people were employed for shorter or longer periods. As sample members aged, offending primarily affected the chances of finding long-term or good quality employment. The state-dependence process showed that individuals aged into employment and out of crime.

6.3 Discussion and Theoretical Implications

Just how can the development of crime over the life course be described for juvenile sex offenders? Is it comparable to criminal development found for the general population of offenders? And is it explained similarly or do specific characteristics of individual sex offenders influence offending risk over time? Is committing a sexual offense in youth an indication of a continued propensity for sexual offending (i.e., the specialist view)? Or does offending occur for juvenile sex offenders similar as for others, as part of the process of becoming an adult, where desistance from crime is made possible by conventional social possibilities, like employment, marriage and parenthood (i.e., the generalist view)? These are some questions that follow from the developmental and life course criminological theories, theories that we tested in this dissertation, specifically for juvenile sex offenders. This section will discuss the implications of the empirical findings with regard to the theories. First, the question on continuity or change over the life course of juvenile sex offenders will be addressed, divided into two subsections on the criminal career and development towards adult social roles. Second, the implications in this dissertation for juvenile sex offender typologies are discussed.
6.3.1 Continuity and Change over the Life Course

Juvenile sex offenders are often treated and considered as a special group of offenders. This is reflected in many studies on specific risk factors associated with sexual offending. However, little is known about the development over the life course of general criminal behavior of juvenile sex offenders. For the general population of offenders it has been established that the development of offending over time follows a distinct pattern, characterized by an offending peak in adolescence, and a decline thereafter (Farrington, 1986). This is a pattern of both continuity and change over the life course, and is influenced by specific risk and protective factors.

Moffitt (1993) theorized particular risk factors that relate to distinct offending trajectories over time. In comparing these risk factors to those found in the current sample of juvenile sex offenders, many theories suggest that our sample fits best with Moffitt’s (1993) life course persistent offender group. This is in line with the widely held belief that sex offenders are chronic and specialized offenders. However, upon inspection of the trajectories that had been extracted from the data, we found little evidence of persistence in offending; most trajectories showed a decline in offending over time. Only a small group seemed relatively more persistent in their sexual offending, although by no means chronic; into adulthood rates decreased steadily with age.

Thus, the findings from this study established that, contrary to what was postulated by Moffitt (1993), sexual offending in youth is not a precursor for a continued criminal (sexual) career. The sexual offense largely appears as a one-time phenomenon in adolescence, almost a ‘slip-up’, perhaps under the influence of puberty, antisocial behavioral patterns or under pressure from co-offenders. This is unexpected, not only as it contradicts Moffitt’s theory but also because sexual offenses are regarded as serious offenses and far removed from ‘boys will be boys’ delinquent behavior. The fact that young men who commit such serious offenses in adolescence commit either no or fairly average offenses as they age, appears contradictory.

This seeming contradiction may be understood by reinterpreting or extending the maturity-gap which was hypothesized by Moffitt (1993) as an explanation for the criminal career of AL-sex offenders. In addition to or instead of the ‘maturity gap’, AL-juvenile sex offenders might experience a ‘socio-sexual gap’ in adolescence, where there is a disparity between their social and emotional development on the one hand, and
the possibility to express their increasing sexual needs. From a developmental psychology perspective, this socio-sexual gap corresponds with the turbulent life phase of adolescence, which is characterized by biological and social changes. One of the key challenges for adolescents is the formation of a (sexual) identity and the accompanying developmental task of learning how to manage physical and emotional (social) intimacy (Smallbone, 2006). The integrated theory by Marshall and Barbaree (1990) highlighted the salience of two of these developmental tasks in the etiology of (juvenile) sexual offending. The first is that males have to learn to discriminate between sexual and aggressive impulses. Second, they have to learn to control aggressive tendencies during sexual experiences (Ward et al., 2006). If a young male suffers from the so-called ‘syndrome of social disability’ (e.g., poor coping skills, low self-esteem, and inadequate social skills) these developmental tasks are made much more difficult, increasing a person’s chances of sexual aggressive behavior under the influence of his emerging sexual urges. Earlier studies established that juvenile sex offenders are often characterized by inadequate social skills and low self-esteem. This could make the developmental tasks of managing emotional intimacy and controlling aggressive impulses more difficult. In other words, a juvenile may experience strong sexual urges but at the same time, his social inadequacy and low self-esteem may cause him to be unsure of what to do about these feelings and how to behave in the presence of a potential sexual partner. This may result in aggressive sexual behavior (Ward et al., 2006). Once the juvenile sex offender attains the developmental tasks, and learns how to control aggressive impulses during sexual experiences, and manages emotional intimacy, the socio-sexual gap will close and desistance from sexual offending can occur.

All in all, juvenile sex offenders are characterized by risk factors that presume a continued criminal career according to Moffitt (1993). Yet, the findings in this dissertation reject this assumption. Despite their risk factors, juvenile sex offenders were found to follow a relatively normative criminal career for high-risk youths, with the exception of the sampling offense. Thus, juvenile sex offenders appear a generalist rather than a specialist offender group, comparable to other offenders.

Within the group of juvenile sex offenders, only a small group of 'true' specialists is present, even if they are not chronic. While this indicates that there may be heterogeneity, the majority of juvenile sex offenders’ criminal careers do not match existing general criminological hypotheses.
To conclude, the findings in this study contradict as well as complement Moffitt’s dual taxonomy (1993). They contradict her hypotheses by demonstrating that sexual offending in adolescence does not indicate a life course persistent criminal career. This contradicts Moffitt’s (1993) etiological framework. The findings complement the theory by Moffitt (1993), in that they offer an explanation for the criminal career development of juvenile sex offenders over time by postulating a socio-sexual gap in addition to the maturity gap.

6.3.2 Dynamic Life-Events and Change

This study established that most juvenile sex offenders follow a criminal career that is not predicted by distinct risk profiles or particular typologies. Overall, as compared to other high-risk juveniles, criminal career development appears normative, with an average offending peak in adolescence and a gradual decline soon thereafter. After having established this, our next step was to investigate whether the mechanisms that had been found to explain criminal career development in non-sexually offending high-risk or general offenders also explain criminal career development in juvenile sex offenders. Life-changing events such as getting married, becoming a parent and finding stable employment create embeddedness in conventional society and responsibility for others. These are hypothesized to make criminal behavior less appealing since the events endanger the embeddedness and responsibility for others. We found that some juvenile sex offenders experience these life-events at relatively young ages: some married young, became a parent young, and on average, labor market entry was at relatively young ages as compared to average Dutch males.

No significant effect of marriage or parenthood was found. A possible reason for this may be that the sample is too young to uncover an effect of marriage or parenthood. A trend of overall lower marriage rates and rising age at marriage is found in most Western countries (Skardhamar & Lyngstad, 2009). Instead of getting married, young couples more often choose to cohabit, and have children out of wedlock in a cohabiting relationship. In the Netherlands, registered cohabiting couples have the same full legal rights as married couples. Therefore, couples marry at higher ages (if at all) and they have often first lived together for several years and may even already have one or more children. In the Netherlands the average age of first time parenthood has increased
steadily. In 2006 the average age of first time parenthood for men was 34.2 years in the Netherlands (CBS, 2008). This is well above the average age of the sample. Very few men had already become a father, and many more individuals in the sample may become a parent at later ages. Thus, the young age of the sample may prevent us from uncovering any effect of parenthood on offending. Second, the lack of effect of marriage and parenthood on offending may be due to the fact that the measures for marriage and parenthood do not capture marriage and parenthood, but early or even precocious marriage and parenthood. The effects of such off-time or non-normative transitions may be quite different (or even the reverse) of transitioning into marriage and parenthood at normative ages. Third, with more and more couples cohabiting instead of getting married in Western societies, marriage might only capture a fraction of the effect for these men of being in an adult romantic relationship. Empirically, Skardhamar and Lyngstad (2009) showed that the influence of a relationship causes a gradual decrease in offending which starts years before the actual marriage, while after the marriage a slight increase in offending is found. This finding supports the cohabitation claim and the assumption that not only marriage will measure a romantic relationship but that cohabitation might also be an important indicator of being in a relationship. Therefore, it is possible that the unmarried sample members may be cohabiting.

Fourth, for parenthood municipal registrations may be incomplete. Parenthood was measured using the official register data from the Dutch municipalities, where children are only registered if an individual legally acknowledges the child as theirs. In the Netherlands there is no obligation to do so, leading to a possible under-registration of the sample members who actually fathered a child. Therefore, among men that we labeled as not having entered parenthood, some may actually already have fathered children (and care for these children). In addition, even if men have fathered a child, they need to be a daily caregiver of that child to find the theoretically hypothesized effect on offending. Such information is also not available in the registers.

The above reasons may explain why no effect of marriage and parenthood was found. However, when we analyzed more sophisticated models that controlled for confounding influences, we did find a small significant increasing effect for parenthood on offending. This was also found in chapter 3 for the subtype child abuser. A possible explanation for the small increasing effect of parenthood is the off-timing of the life-
event. Child abusers were found to have children at significantly younger ages than a comparable group of average Dutch males and the other two subtypes. This could indicate that they have a child before developmental adulthood is reached, causing serious life stress, as they possibly do not yet possess the adequate skills and financial means to care for a child. Young parenthood has been found to trigger certain risk factors that are related to aggressiveness and other criminal behavior (Dearden, Hale, & Woolley, 1995). All in all, these findings do not indicate that parenthood cannot be a protective factor in adulthood. We merely found that at the current young age of the sample, parenthood is not a protective factor, even resulting in a detrimental effect of parenthood on offending.

Does this mean, with null or negative effects for marriage and parenthood, that general life course theory does not explain the decline in offending found for the juvenile sex offenders within this dissertation? No, we believe that the theory might still be applicable. Once the age in the sample goes up and if other measures for romantic attachment and fatherhood are available, an effect of the life-events marriage and parenthood on offending might still be uncovered. This conclusion - that general life course theory explains the criminal careers of juvenile sex offenders - is supported by the fact that we did find an effect of employment, for which we had very precise and objective measures. Employment is often considered as the first preamble to adult roles. In the next section, a more elaborate discussion of the employment-offending association is given.

6.3.3 Why does employment work?

In chapter 1, section 1.6.2 elaborated on the constraints of the labor market for (juvenile) sex offenders. In spite of these constraints, and their fragmented labor market participation, a reducing effect of employment on offending was found. So what implications do these results have for theory about the employment-crime association? Also, what do they imply for the theoretical applicability of general criminological theories for juvenile sex offenders?

Theoretical accounts postulate two important mechanisms that could explain the reducing effect of employment on offending. The first is that employment has an instantaneous effect on the reduction of criminal behavior because employed individuals
will have less time for offending (Shover, 1996). There is also the financial aspect where an income will reduce the need for property crime (Agnew, 1992; G. S. Becker, 1968). In other words, the relative gain of (acquisitive) crime becomes much less once someone has a (regular) source of income. In chapter 4, an association between regular employment and offending was found, while there was no evidence for an association between temporary (job agency) employment and offending. If it were the structured activities and monetary gains that employment offers which explained the decrease in offending, we would also have expected to find an association with temporary employment agency jobs. This indicates that more than merely being ‘off the street’ and monetary aspects are involved in the association between employment and offending for juvenile sex offenders.

The second mechanisms is based on social control theories. Following, these theories one would expect that employment reduces offending due to the social control provided by employment. Chapter 4 partly confirmed this hypothesis. On the one hand regular employment, which is estimated to generate more social capital or embeddedness in society than temporary employment, had a reducing effect on offending (Sampson & Laub, 1993), which supports explanations focusing on social control. On the other hand, employment stability, which would also support social control explanations, had no significant effect on offending. However, this last finding is not surprising as juvenile sex offenders were found to have overall short employment contracts, which makes it difficult to statistically uncover the association.

So far, theoretical assumptions were only partly confirmed by the outcomes in this study. Therefore, the question is what other mechanisms can explain the reducing effect of employment on offending in juvenile sex offenders. Chapter 5 uncovered a well-known interaction that is important in explaining the reducing employment crime-association: age. This study found that the reducing effect of employment becomes stronger with age. Before the age of 22 little effect was found, but after this age an increasingly stronger reducing effect was uncovered. This age coincides with the developmental theory by Arnett (2004), which describes that in adolescence, explorations of the identity commence. In emerging adulthood (ranging from age 18 up to 25) these explorations intensify. The first years of emerging adulthood are often characterized by instability in employment, relationships and housing situations. In the last stages of emerging adulthood, attempts at fulfilling adult roles increase and become more
serious, and individuals start ‘settling down’. This is what was found in chapter 5 for the employment-offending association; in the first years of emerging adulthood little effect was uncovered, while in the last stage of emerging adulthood the reducing effect of employment had grown stronger. However, theorists who focus on desistance from a maturation perspective emphasize that the decrease in offending with age is a given, which merely overlaps with the taking on of adult roles. Thus, they view the employment-crime association as spurious, caused by maturation (Gottfredson & Hirschi, 1990). In Chapter 5, we did indeed find a strong influence of age on the employment-crime association and these findings partly support the notion that desistance is caused by maturation. Overall, the exact theoretical mechanisms responsible for the decrease in offending seem difficult to uncover. Indisputably, the employment-offending association is a complex one that can likely be explained partly by social control theories and partly by static life course theories that focus on maturation.

Our findings are comparable to those from other Dutch studies on the employment-offending association for high-risk juveniles (e.g. Van der Geest et al., 2011; Verbruggen et al., 2012). As for high-risk juveniles, juvenile sex offenders also struggle on the labor market and have employment careers interspersed with spells of unemployment. Nevertheless, employment does contribute to a reduction in offending for juvenile sex offenders, as it does for high-risk juveniles. The comparability between the outcomes of the studies indicates that, in terms of factors influencing their adult criminal careers, juvenile sex offenders resemble other offenders. Again, this could indicate that the sexual offense was in fact a ‘slip-up’ that temporarily seemed to set them apart from the general population of offenders. Overall, the development of juvenile sex offenders over time seems to follow propositions from general criminological theories, as their criminal career pattern resembles the general age-crime curve and employment explains reductions in offending, increasingly so over age.

### 6.3.4 Typology

Many studies highlighted the heterogeneity in juvenile sex offenders, but no consensus had been reached in the empirical literature with regard to one typology. Therefore, in this dissertation we first let statistical analysis divide the sample with regard to their offending patterns into different offender trajectories. In this way five subgroups were
found, with the largest part of the sample in the low offending trajectories. The trajectories did, however, differ only marginally with regard to stable risk and protective characteristics. The subtypes derived from the typology by Hendriks (2006) also did not sharply distinguish between the trajectories. Even so, child abusers seemed most distinct from the other two offender groups, as they appeared most specialized of the juvenile sex offenders. Child abusers were more often placed in the AL-trajectory that consisted of mostly sexual offending, although at a low frequency. Therefore, while they in a sense specialize, this does not mean that they are chronic sexual offenders: most juvenile sex offenders in the AL-trajectory stopped offending in adulthood.

Chapter 3 supported the assumption that child abusers differed from the other two types, since they did not benefit from marriage, while becoming a parent significantly increased their chances for continued offending. However, chapter 3 also found that while child abusers were employed more often, they did not benefit from employment. This seems contradictory and there are two possible reasons that may explain these findings. The first is a statistical one, as child abusers are on average criminally the least active of the three subtypes in the early adulthood, where most transitions take place. When few to no offenses are committed it is hard to statistically detect an effect of employment on offending. The second explanation is based on clinical assumptions; according to this explanation no effect can be found due to further heterogeneity within the child abusers. If it is the case that a further subgroup exists within the child abusers, with pedophilia and other paraphilia (Kafka, 2003), this specific group may not be deterred from sexual offending by life-events, since their paraphilic disorder will make it difficult for them to desist from sex offending and the effect of life-events will be limited. However, in our data we found no evidence for this assumption, possibly due to the fact that only a small percentage of the sex offender population can be defined by deviant sexual interests such as pedophilia and other paraphilia (Seto & Lalumière, 2010). Thus, even if there are child abusers with deviant sexual interests within the sample their number is likely too small to have any effect on the analysis. Therefore, the first explanation seems more plausible.

Group offenders benefited the most from employment, possibly due to their (on average) adequate social skills, and fewer adverse background characteristics compared to the other juvenile sex offender subtypes. Perhaps these social skills and relatively favorable background characteristics are also what made them conform to being the
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typical ‘adolescence-limited’-offenders, who offend while under the influence of criminal peers and with a maturity gap as described by Moffitt (1993). The relatively favorable profile of group offenders possibly later facilitated their progress to adult roles which aided them in desistance from offending. In other words, group offenders were found to benefit most from employment, maybe due to the fact that they are more sociable and easily influenced by their peers, perhaps benefiting from the positive social influences of their non-criminal co-workers.

We had chosen to investigate heterogeneity using the typology that was developed by Hendriks (2006), because earlier cross-sectional studies had revealed meaningful differences between these subgroups. In this dissertation we found the typology to be of limited use in explaining, describing, and predicting the sample members’ criminal careers. There are two possible explanations for this finding. First, it may be that the background characteristics of these offenders are associated with their sex offense characteristics, yet this association does not exist for their later (mainly non-sexual) criminal career. Second, it may be that cognitive behavioral treatment that a large part of the sample received leveled any differences.

Regardless of which explanation is true, three questions remain. The first question is whether the child abusers actually are one homogeneous group or whether this type actually consists of two (or more) subtypes, including a type with deviant sexual interests? The second question is whether the group offenders and peer abusers are really two distinct subtypes, given that their adult criminal careers are so comparable? As an underlying, third question, one may doubt whether the typology, that was shown to be meaningful and interpretable when these offenders were juveniles, has any bearing on these men’s adult criminal careers.

6.4 Strengths and Limitations

The data used in this study is strong and rich, but also has a number of limitations. This section will first discuss the key strengths of this study before outlining the limitations. First, the sample we used is large, consisting of 498 juvenile sex offenders in the Netherlands. Official statistics show that only few juveniles are convicted for a sex offense each year (in 2012 only 105 juveniles were convicted for a sexual offense according to Statistics Netherlands - retrieved from: https://www.statline.cbs.nl). Therefore,
the 498 juvenile sex offenders in this sample constitute a considerable number of the Dutch juvenile sex offender population. Second, the sample highlights the heterogeneity of juvenile sex offenders as some had been residentially treated, implicating complex problematic behavior, others had been treated at an outpatient treatment facility for less severe psychological problems, and the sample also comprised a group that was not treated as there were no or few indications of psychological problems. Therefore, the sample shows a broad variety of seriousness in problematic background characteristics. Also, the sample comprised different types of sex offenders: child abusers, peer abusers and offenders who had offended in a group.

A second strength is that the data were prospectively gathered. In this dissertation we were interested in analyzing juvenile sex offenders’ criminal career development. The prospective research design allowed us to start at the sampling offense and follow-up criminal and societal development well into adulthood. This enabled us to establish whether continuity in sex offending exists over time, or if juvenile sex offenders’ development resembles mostly more general offenders. As stated, the data allowed for a follow-up well into adulthood, covering the entire emerging adulthood, for (on average) 14 years. Third, the study used a rich dataset of longitudinal data on crime, employment, marriage, parenthood, and validated data on the personal background of the sample members. Therefore, not only static risk factors are studied in the dissertation, also dynamic risk and protective factors could be taken into account. By studying all these factors combined, we obtain more comprehensive insights into the lives of the sample members.

Finally, the use of officially registered data for crime, employment, marriage and parenthood is objective, detailed and precise. These data are not colored by subjectivity, such as social desirability and reporting bias. Moreover, the data are not affected by non-response or drop-out.

At the same time, the use of officially registered data also constitutes a limitation to the study. In the first chapter in section 1.3 it is described that only a fraction of all sex offenses are reported to the police, a much smaller fraction of offenders are arrested, and an even smaller fraction convicted. Therefore, it is likely that we have captured only a small portion of all offending. This disadvantage is not unique to our sample; within the criminological field this phenomenon is known as the dark number. However, it is possible that the distortion for sexual offending is larger, as the dark
number is said to be higher for sex offenses than for other offenses. If it is the case that certain types of sex offenses and sex offenders are particularly unlikely to be caught, then this also has implications for the representativeness of the sample, as they might be less representative for the entire juvenile sex offender population. However, if it is the case that a certain subtype of juvenile sex offender are arrested more often, perhaps due to their low intelligence, or the nature of the offense, or that certain offenses are more often prosecuted than others, the criminal career patterns might overrepresent certain offenses and subtypes.

The second limitation for this study concerns generalizability. Strictly speaking, the overall generalizability is limited, given that the juvenile sex offenders in the sample are troubled by problematic background characteristics, adverse personality and environmental characteristics and low educational levels. Therefore, the studied sample is a more serious sex offender group, leaving the less serious juvenile sex offenders out of perspective (for more see the section ‘Directions for Future Research’ below).

The use of registered poses additional limitations as well. For employment, the official data is fairly detailed. However, it holds no information about income and perceived employment quality, an important factor found by several empirical studies (e.g., Sampson & Laub, 2003; Wadsworth, 2006) in reducing offending and promoting conformity. Since only official employment registration was used, there is also no measure of ‘unofficial’ labor. For a low educated sample that is also held back from several employment opportunities by criminal justice policies, it may be possible that some individuals have (increasingly) worked illegal jobs in the so-called ‘black labor market’. Moreover, no distinction could be made between full-time and part-time employment. However, we presume that most contracts would have been almost full-time given the very few supplementary benefits received from the Dutch government by the sample members.

The main limitation of the marital data is time-based. In the period (1950s, according to the Glueck data studied by Sampson and Laub (1993)) when marriage was theorized to potentially limit offending, the circumstances and reasons for marriage were different. Then, it was considered as the marker for involvement with a romantic partner. Many recent studies have suggested that marriage may less and less be a suitable marker for involvement with a romantic partner for young adults, as many young adults cohabit, instead of, or before, getting married (Skardhamar & Lyngstad, 2009).
Since there is no official registration of cohabitation in the data source we used, it is unknown whether people were romantically involved in a different manner. Similar to the limitation in the employment data, we also have no information on the quality of marriages. This is important as several empirical studies found that only marriages of good quality have the ability to influence offending (e.g., Sampson et al., 2006).

Next, the parenthood measurement may be considered incomplete as the use of official data allows us to only record whether the individuals legally registered a child as theirs. In the Netherlands, there is no obligation for men to do so if they are not married to the mother of the child. As such, it is possible that sample members did not acknowledge a child they actually fathered. Moreover, it is unknown whether the fathers actually lived with and took care of their child even if they acknowledged it.

Another limitation of this study is related to the risk factors used. They were measured around the age of the sampling offense which was in youth. At that age personality disorders could not be established and merely a predisposition for a personality disorder could be given. Thus, psychopathology within the sample may be underestimated.

The study also suffers other methodological constraints. Regarding causality we cannot be certain that the effect of employment on offending can be ascribed solely to employment, as the study did not have an experimental design. Obviously, the current study could not have been conducted using an experiment, as individuals cannot be assigned randomly to employment, marriage or parenthood. Instead, for the observational data statistical techniques that limit selection effects had to be used. The current study attempts to makes up for this limitation by using longitudinal data and sophisticated statistical methods that control for selection bias. Still, causal conclusions should be drawn with due caution.

Finally, the register data allow for a look at the ‘outsides’ of the studied individuals’ lives. Thus, the less outwardly observable factors, such as the will to desist from offending, could not be studied. Giordano et al. (2002) labelled these mechanisms the process of cognitive transformation, meaning that if an individual wants to change and desist from crime, he will then use conventional adult roles as a ‘hook for change’ to support his desistance process. Following this reasoning, any reducing effect of marriage, parenthood or employment is then not due to the transition, but caused by the earlier offenders’ change in identity and motivation to desist from offending.
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Thus, the changes we find for employment, offending, marriage and parenthood might actually have been caused by such internal transformations.

6.5 Policy Implications

Empirical data on criminal careers are important for the development of criminal justice policies. Knowing how criminal behavior develops over time can increase the efficient use of public resources to fight crime. Specifically for juvenile sex offenders it is important to know more about criminal career development. Because they are assumed to be persistent sex offenders, special criminal justice policies have been implemented in various countries. Unfortunately such policies have mostly been built on assumptions, and are far from evidence-based.

The current study indicates that specialization in sexual offending occurs only for a small group within the total group of juvenile sex offenders. It is important to establish what the risk factors are for these recidivists; only then can risk assessment instruments be designed to use in clinical and criminal justice practice to identify those at risk of re-offending sexually. Currently, the predictive validity of risk assessment instruments for juvenile sex offenders is such that they must be considered inadequate to predict sexual recidivism (Hempel et al., 2013). Most instruments have been extrapolated from adult risk assessment models, and have not been validated for juvenile sex offenders (Caldwell, 2002). As juveniles experience rapid changes on several life domains, risk factors within these domains also change over time. Therefore, it is not surprising that good risk assessment instruments for juveniles are so difficult to develop.

This study demonstrated that the use of typologies is limited in helping predict sexual recidivism. However, using the typology by Hendriks (2006) showed that the three subtypes of child abusers, peer abusers and group offenders, had marginally different general criminal careers. This implies that a risk assessment based on this typology is likely to improve the accuracy of recidivism predictions and decisions for rehabilitation or treatments to a limited extent. Much more importantly, this study showed that risk assessment for (formerly juvenile) sex offenders would gain much more from taking into account whether or not the person to be assessed is employed. This study uncovered that despite labor market restrictions, fractured employment participation and adverse background characteristics, employment plays an important
role for juvenile sex offenders to reduce offending. If the juvenile is employed then the risk of offending is lower, and is increasingly lower as the offender is older. This is so because with age employment increases the likelihood of future employment, which has a strong reducing effect on offending. Employment should therefore be incorporated in risk assessments as a marker for positive development and a protective factor from recidivism, especially for peer abusers and group offenders. More research is needed to investigate whether employment may have a beneficial influence only for subtypes within the group of child abusers.

The protective effect of employment yields important implications for policy and general ‘treatment’ of juvenile sex offenders. As stated in chapter 1, most (juvenile) sex offender (see for an explanation of the VOG ‘verklaring omtrent gedrag’: chapter 1 box 1) policies are based on the assumption that (juvenile) sex offenders are a specialized and chronic group of offenders. In the Netherlands the VOG places them in a sense ‘outside’ of conventional society through labor market restrictions. Since we found employment to reduce offending, such policies warrant reconsideration. Guidance towards employment may be more effective in risk reduction for juvenile sex offenders in young adulthood. In our sample, group offenders seemed to benefit most from employment, and therefore guidance toward employment and limited restrictions could be particularly beneficial to this group. Society is perhaps better protected against sex offending not by exclusion but by inclusion of former juvenile sex offenders into mainstream society. We can be less sure about this for child abusers, as we failed to find strong effects for this group.

All in all, given the positive influence employment has on reducing crime and given the difficulties juvenile sex offenders have in finding and keeping employment, interventions should not only focus on getting a job, but also on keeping a job.

6.6 Directions for Future Research

Based on our findings, this section outlines several suggestions for future research. First, although our sample is large and contains rich validated information, the generalizability is somewhat limited. The juvenile sex offenders in the sample are mostly troubled by problematic background characteristics that causes them to be assessed as at high risk of re-offending. Therefore, this sample seems to be a relatively criminally
active and troubled subtype within the population of juvenile sex offenders. In the Netherlands, less troubled juvenile sex offenders may be convicted to follow a mandatory educational program (see; Hoing, Jonker, & Van Berlo, 2010). Incorporating such juvenile sex offenders with fewer problematic background characteristics into analyses will enhance our understanding of the entire population of juvenile sex offenders in the Netherlands. Moreover, the power of the sample will increase with a larger sample, allowing for more statistical possibilities to uncover relations for this subgroup of juvenile offenders.

Second, this study found that age significantly influenced several events in the lives of juvenile sex offenders. Nevertheless, the sample is still relatively young. Increasing the average age in the sample will possible uncover effects of other life-events, like marriage or parenthood, as it becomes more common and age-appropriate. Re-analysis of the sample with additional data after a number of years is therefore advisable.

This study showed that a small minority in the sample continued to commit sex offences, although at a rapidly decreasing frequency. Future research should attempt to identify characteristics that predict membership of this group. VOG policies affect all juvenile sex offenders. If they are at all to be continued they should perhaps be focused on this group only.

Third, the information upon which the study is based is official register data. The use of this type of data holds numerous strengths, such as objectiveness and high comparability. However, there are also limitations to the use of register data. The results grant us an ‘outside’ look of the lives of juvenile sex offenders, while the inside and a more subjective side remains unexplored. Future research is necessary to study inner motivations, experiences, thoughts and well-being of juvenile sex offenders, as a further exploration of the mechanisms behind their overall desistance. For instance, qualitative information from interviews or self-report could shed further light on how the employment-offending association works Uggen (1999). As it is possible that the decline in offending may no be not be employment per se, but could also be perceived quality, or feelings of responsibility. The same goes for marriage, or more broadly romantic relationships. Sampson and Laub (1993) assume that a qualitatively good marriage will have a more beneficial effect on offending. Moreover, questions on parenthood and parental self-efficacy could be asked in face-to-face interviews; as stated in the limitations our data did not reveal whether fathers had any parental respon-
sibilities. If there is no contact with the child then any effect on offending is likely limited. Also, interviews or self-report studies could enhance our understanding of alternative explanations for the employment-offending association, like the process of cognitive transformation by Giordano et al. (2002), by asking about the motivation to desist from offending. Finally, qualitative interviews or self-report data could generate information on factors that are not available through official register data (e.g., like educational levels, health issues, dynamic information on drug and alcohol abuse, and housing situation). All in all, this study gives an elaborate look at the official side of the lives of juvenile sex offenders. Nevertheless, future in-depth quantitative and qualitative research is needed to get a better understanding of these individuals’ lives.

Finally, all analyses in this dissertation were conducted with yearly intervals. Since the lives of juveniles are so dynamic and change occurs at high pace, this might not be sufficient to capture the temporal ordering of the life-events and the criminal career. Some recent studies have for that reason focused on monthly time intervals (e.g., Skardhamar & Savolainen, 2012; Skardhamar & Lyngstad, 2009). Such detailed analyses uncovered evidence for the process of cognitive transformation, showing a decline in offending already prior to the life-event (Giordano et al., 2002). Using smaller time intervals could unravel whether such processes of cognitive transformation also explain juvenile sex offenders’ criminal careers.

6.7 Conclusion

In conclusion, the findings from this study show that, overall, juvenile sex offenders are not the prototypical persistent specialist offender. Juvenile sex offenders appear to be generalists in their offending patterns. Only a small minority continues to commit sex offences into adulthood, and even these individuals do so at a rapidly decreasing rate. As a group, juvenile sex offenders appear comparable to other offenders. Their adult criminal careers resembled those of general high-risk juveniles, as did the factors that explain the criminal career. Of course, given that sex offenses are likely to have a higher dark number than other offenses, one could argue that our variables did not capture all subsequent sex offending; we are simply missing out on all the hidden sexual recidivism. However, this argument can easily be turned around. As so many sex offenses go undetected, many non-sex offenders may in fact have committed sexual
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offenses in adolescence as well, but simply have never been caught.

Neither the criminal careers nor risk factors of the juvenile sex offenders fit the
dual taxonomy proposed by Moffitt (1993). Characteristics at age 14 were only weakly
associated with adult criminal career outcomes. We theorized that some juvenile sex
offenders, instead of or in addition to the maturity-gap hypothesized by Moffitt (1993),
experience a socio-sexual gap. The sexual offending by juvenile sex offenders is, ac-
cording to this reasoning, a temporary disparity between their sexual needs and their
social skills. Once juvenile sex offenders catch up in their developmental tasks, the gap
will close and desistance from sexual offending occurs. It is possible that the treat-
ment followed by a part of the sample contributed to the closing of this gap. Instead,
factors theorized by general life course criminology explained juvenile sex offenders’
adult offending careers. Even though modest to no effects were found for marriage
and parenthood (likely for methodological reasons), we found fairly consistent effects
for employment. Employment, in spite of limited and fractured employment spells,
contributed to a sizeable reduction in offending. It is likely that the building up of
social capital through inclusion in mainstream society is the strongest contributing
factor here. Also in line with general criminological theory, the effect became stronger
with age, and juvenile sex offenders aged out of crime and into employment. Interest-
ingly, this effect was found despite increasingly severe labor market restrictions for this
group in the Netherlands. We are unsure why none to limited effects were found for
child abusers (even though they most often abstained from offending). More research
is warranted, particularly for this group.