Chapter 1

INTRODUCTION
1. GENERAL INTRODUCTION

Since the beginning of the 19th century, one of the best documented facts in criminology is the age-crime curve, showing a rapid rise in crime during early adolescence, peaking in the teenage years, and declining throughout adulthood (Nagin, Farrington, and Moffitt 1995; Hirschi and Gottfredson 1983; Farrington 1986; Piquero, Farrington, and Blumstein 2003). As the decline in criminal behavior seems to overlap with transitions to adult roles and responsibilities, it has been argued that these role changes represent an explanation for the observed desistance (Siennick and Osgood 2008). Among adult transitions, family-related events such as marriage and parenthood became central to theoretical debates explaining developments in criminal offending (Sampson and Laub 1993; Giordano, Cernkovich, and Rudolph 2002; Laub and Sampson 2003; Gottfredson and Hirschi 1990). This dissertation aims to contribute to the growing literature on this debate. However, before outlining the research questions central to this thesis, I will briefly discuss some of the key issues that warrant attention in advancing our knowledge on this topic.

Existing theoretical frameworks explaining the relationship between family formation and crime are commonly classified into two main currents referred to as static and dynamic (Paternoster et al. 1997). The static perspective does not acknowledge the influence of adult circumstances on crime, and argues that any association between the family events and offending is in fact explained by pre-existing between-individual differences (Gottfredson and Hirschi 1990; Wilson and Herrnstein 1985). The dynamic perspective considers that the tendency to commit crimes changes throughout life, and various life events (including family related events) have the capacity to initiate change (Laub and Sampson 2001; Farrington 2003; Giordano, Cernkovich, and Rudolph 2002). Importantly, within this dynamic approach multiple debates emerged as existing theories differ in their explanations of the underlying mechanisms of behavioral change (e.g. social bonding versus routine activities), and the direction of change in criminal trajectories (upslope or downslope).

To a large extent, our ability to test explanations of the influences of family roles on criminal participation has been hampered by methodological aspects. Many of the existing studies have been developed on cross-sectional data, generally allowing for an analysis of inter-individual differences. Therefore, when comparing criminals with non-criminals, it was often difficult to distinguish between correlates and causes of crime. With the increase in longitudinal studies and the rise of the dynamic developmental and life-course perspective (DLC) during the last quarter-century, our understanding of risk factors of criminal involvement, development of criminogenic life-paths, and influences of salient life events on crime has improved greatly (Farrington 2003). However, despite all recent methodological and statistical developments, we still know relatively little about the processes underlying the effects of family experiences on crime.

Much of the existing literature applies a unidirectional perspective on the family formation - crime nexus, focusing on the influences of family roles on criminal behavior, and remaining silent or ambiguous about the reverse relationship. As Loeber and Farrington (2008) stated, “causally related variables are always intercorrelated with each other and may have reciprocal effects”. Accordingly, if the presence of spouses and children protects
individuals from criminal involvement, it is also important to understand whether criminal conduct has repercussions on family adult roles. Although the interactional dynamic approach emphasizing bidirectional influences (Thornberry 1987) gains field in life-course research, to date, existing studies allocated limited attention to this reversed causality.

With males outnumbering females in crime statistics, criminal behavior has been often treated as a male phenomenon. Most of the existing theoretical frameworks have remained silent or ambiguous about gender differences in the relationship between family life events and crime, as they were empirically based on male behavior (Sampson and Laub 1993; Farrington and West 1995). It is only recently that researchers have started to pay attention to female offending as well (Giordano, Cernkovich, and Rudolph 2002). Since both crime and family experiences are highly gendered phenomena (King, Massoglia, and MacMillan 2007), it becomes increasingly relevant to unravel whether mechanisms explaining changes in crime require distinct theoretical propositions for each gender, and whether criminal engagement differently influences adult family-pathways for men and women.

Studying the link between crime and family life has become increasingly difficult throughout the last decades, as major demographic changes in partnership behavior, family formation and fertility have occurred. The Netherlands, the country where this thesis was conducted, is no exception to these changes in family systems. The traditional family pattern (marriage followed by parenthood), dominant before the “second demographic transition” of the 1970s (Sobotka 2008), became less prevalent. Moreover, alternative family markers and living arrangements (such as non-marital cohabitation, out-of-wedlock childbearing, single parenthood and divorce) occurring in various sequences have become more common. These major changes require that the relationship between family formation and crime needs to be investigated beyond the traditional family formation pattern. Specifically, research has to establish whether events such as marriage and parenthood, connected or not, continue to represent important markers of criminal pathways, whether increases in divorce rates have influenced criminal participation, and whether alternative forms of family arrangements (often determined by the presence of non-marital cohabitation) are differently or similarly connected with crime.

Although the study of crime at the population level continues to answer important questions for crime prevention and intervention strategies, politicians and policy developers have also drawn attention towards a specific group of individuals committing a large proportion of the recorded crimes and having extensive criminal careers, namely youngsters with an early onset and adolescent offenders (Piquero, Farrington, and Blumstein 2003; Farrington and West 1993). In The Netherlands, these high-risk youngsters are often treated in residential judicial facilities. However, the risk of recidivism remains relatively high: 65% offend within a five-year period after release (van der Heiden-Attema and Wartna 2000), and about 80% within a seven-year period after release (Wartna, El Harbachi, and Van der Laan 2005). For these young individuals, with an increased risk of committing crime, family life transitions seem especially important as a successful transition into marriage and parenthood may lead to desistance from crime. A better understanding of the factors determining changes in the developmental paths of institutionalized juveniles provides valuable information for policy makers, aiming to develop post-onset and non-youth prevention and intervention strategies, in order to reduce societal risks and diminish economic costs related to crime.
2. AIM OF THE STUDY AND RESEARCH QUESTIONS

The general aim of this dissertation is to provide answers to some of the unresolved theoretical and empirical issues regarding the temporal interdependency between criminal offending and different family life events. In particular, this thesis examines various aspects of family life in modern society and identifies three categories of interest: union formation (referring to marriage, cohabitation or non-cohabiting romantic relationships), union dissolution (separation and divorce) and parenthood. Further, it proposes to advance knowledge on the family formation – crime relationship by: a) identifying and explaining influences of family formation on crime; b) identifying and explaining repercussions of criminal involvement on family formation; c) comparing findings by gender and cross-nationally.

Even in modern society, characterized by diverse and complex family markers, events such as marriage, parenthood, and divorce continue to be perceived as significant family transitions. However, life-course criminological literature describing the effects of these family developments on crime has been predominantly preoccupied with the effect of marriage on criminal conduct. This adult status transition is presumed to increase interpersonal attachment and commitment (Sampson and Laub 1993; Laub and Sampson 2003), determine changes in daily routines (Warr 1998; Osgood and Lee 1993; Laub and Sampson 2003), and produce internal transformations (Giordano, Cernkovich, and Rudolph 2002; Paternoster and Bushway 2009; Laub and Sampson 2003), and each of these elements is potentially capable to change the course of a criminal career. Moreover, whereas the presence of a marital partner is regarded as a positive event in one’s life (determining successful disengagement from crime), a negative transition such as divorce is associated with the absence of an intimate partner, therefore expected to stimulate involvement in criminogenic behavior (Horney, Osgood, and Marshall 1995; Sampson and Laub 1993). Surprisingly, the relationship between divorce and offending has been only rarely studied, and, generally, it has been assumed that the mechanisms explaining the marriage-crime relationship would apply reversely to the divorce-crime relationship. In addition, whereas the effect of marriage on criminal behavior represented a relatively popular topic for criminological literature, the influence of parenthood on crime has received only sparse attention. From a different perspective, it could also be that individuals with certain characteristics such as low self-control (Gottfredson and Hirschi 1990) tend to select themselves into particular experiences (they are more likely to offend, less likely to get married and have children, and more likely to divorce if married), and this self-selection disclaims causal assumptions of the marriage-crime linkage. Given the ambiguities and limitations in the existing literature, the first research question of this dissertation is:

**RQ1: Do union formation, union dissolution and parenthood influence criminal offending?**

One of the most difficult tasks for empirical research analyzing the relationship between criminality and family formation has been to explain the mechanisms through which potential effects occur. Some authors (Laub, Nagin, and Sampson 1998) argued that the positive influences of marriage are presumably conditioned by the presence of a quality bond
between spouses, obtained through “gradual and cumulative achievement”. In the absence of empirical data properly differentiating levels of relationship quality (especially within-individual), and clear specifications of how a highly valued intimate relationship should be defined, researchers often use proxy indicators such as the duration of the marital union. Another important element in defining relationship quality may be represented by characteristics of the intimate partners, more specifically his/her criminal proclivity. Scholars such as Akers and Lee (1996) argued that marriage with a criminal partner activates social learning processes and stimulates involvement in crime. Nevertheless, it could also be that individuals with similar backgrounds (e.g. criminal involvement) select themselves as partners, and no learning crime component exists between spouses. Given these considerations, we add to the existing research agenda on the marriage-crime relationship by formulating a second research question:

**RQ2: What factors explain the influence of union formation on criminal offending?**

Little empirical research has yet investigated the influence of parenthood on offending. Most existing studies analyzed the joint effect of marriage and parenthood, as they were often considered elements of a single family package. However, in contemporary society, the increasing disconnection between the two family roles enables researchers to disentangle the effects of marriage and parenthood on crime, and understand the effects of different family constellations. In addition, it remains unclear whether the transition to parenthood represents a catalyst for change reducing criminal participation gradually (Sampson and Laub 1993) or abruptly (Cohen and Felson 1979), a consequence of processes occurring prior to entrance into parenthood (Giordano, Cernkovich, and Rudolph 2002; Paternoster and Bushway 2009), a source of strain stimulating criminogenic behavior (Agnew 1992), or a family-event unrelated to criminal involvement. Moreover, although the theoretical criminological frameworks explaining the effects of parenthood on crime assumed universality, inconsistent empirical results obtained in different countries suggest that the proposed mechanisms differ across nations (Savolainen 2009; Uggen and Kruttschnitt 1998; Giordano, Cernkovich, and Rudolph 2002; Blokland and Nieuwbeerta 2005). To better understand whether the mechanisms explaining the effects of parenthood on offending vary by context, this thesis included a cross-national comparison using similar methods of investigation in two countries with different parental social contexts: The Netherlands and Norway. Given all these considerations, we aimed to better understand how parenthood and offending are interlined, and formulated the third research question:

**RQ3: What factors explain the influence of parenthood on offending?**

Whereas the influence of marriage on pathways to crime and conformity have been studied across different samples, analytical methods and socio-historical contexts (Bersani, Laub, and Nieuwbeerta 2009; King, Massoglia, and MacMillan 2007; Lyngstad and Skardhamar 2013; Sampson, Laub, and Wimer 2006; Beijers, Bijleveld, and Van Poppel 2012), the opposite direction of the causal chain remained under-investigated. To date, little is known about the effects of criminal behavior on marital unions (or other types of romantic relationships such as cohabiting and non-cohabiting unions), and most existing knowledge
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derives from studies on incarcerated individuals. One explanation for the effects of criminal behavior on union formation and union dissolution has been provided by labeling theory (Lemert 1967), stating that individuals engaging in crime are treated differently by society, and this may limit romantic prospects and erode intimate relationships (van Schellen, Poortman, and Nieuwebeerta 2011). To redress this lack of concrete knowledge regarding this relationship, two additional research questions have been formulated:

RQ4: Does criminal offending influence union formation and union dissolution?
RQ5: What factors explain the influence of crime on union formation and union dissolution?

A frequent critique of the existing criminological literature is the extensive attention on male behavior (Giordano, Cernkovich, and Rudolph 2002), whereas female behavior remained under-explained and under-explored. Currently, a plethora of male studies populates the empirical literature on the family events-crime nexus (to name some Sampson and Laub 1993; Lyngstad and Skardhamar 2013; Farrington and West 1995), and only comparatively little research has focused on female behavior (Giordano, Cernkovich, and Rudolph 2002; King, Massoglia, and MacMillan 2007; Savolainen 2009). To gain knowledge on whether fundamental gender differences on this topic exist, research should focus on comparative studies including males and females for whom the methodology is similarly constructed. This dissertation contributes to existing literature by answering all the formulated research questions for both males and females.

RQ7: Is the interrelation between family formation and crime different for males and females?

3. CONTEXT AND CONCEPTUAL FRAMEWORK

3.1. Family formation patterns: between ‘old’ and ‘new’

The last decennia (starting with the 1970s) have been marked by major changes in the transition to adulthood, often referred to as the second demographic transition (Van de Kaa 1993). Especially in industrialized societies, the timing and sequencing of events such as completion of education, entering the labor market, leaving the parental home, getting married, and having children have changed, rendering a “late, protracted, and complex”1 portrait of the young adulthood pathways (Billari and Liefbroer 2010). As part of this trend, family formation patterns in modern society are represented by postponement of marriage and parenthood (Lesthaeghe and Willems 1999), declines in marriage rates, and increases in divorce rates (Kalmijn 2007). Moreover, as the connection between the institution of marriage, sexual involvement and childbearing has weakened, the traditional family sequence

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1 Billari and Liefbroer (2010) offer a description of the terms late, protracted and complex. Late = many events occur in the later phases of young adulthood. Protracted – there is a relatively long time-span covering the events. Complex – a multitude of events occur in various orders.
(marriage followed by entrance into parenthood) is no longer standard, and alternative living and family arrangements such as non-marital cohabitation, extra-marital and single parenthood became increasingly prevalent (Billari and Liefbroer 2010).

In The Netherlands, these changes in family formation behavior have marked the recent decades as well\(^2\). As shown in Figure 1, starting with the 1970s, the average age of entering the first marriage increased gradually for both men and women, and in 2010 both genders crossed age 30 in first experiencing this family event. With regard to divorce patterns, between 1940 and 1970 the rate of divorce per 1,000 married couples was relatively low. However, in the 1970s the “divorce revolution” starts, and after the 1990s, the number of divorces per 1,000 couples is about 6 times higher compared to 1940.

\[\text{Figure 1. Trends of marriage and divorce in The Netherlands}\]

Many of the observed demographic changes in marriage and divorce patterns have been the result of major changes in norms, values and attitudes regarding relationship formation and dissolution. Given these changes, marriage seems to have lost its strength whereas cohabitation became increasingly popular (Manting 1996). Figure 2 presents an overview of the changing patterns in partnership intentions and choices throughout the years. However, as Statistics Netherlands does not offer historical information for males, I limit the description to the female population. Whereas in the late 1960s about nine in ten women married without previously cohabiting, this changed considerably throughout the years, and in the early 2000s only about one in ten women married without pre-marital cohabitation. At the opposite pole, cohabitation without the intention to marry gradually increased throughout the years from less than one in ten women in the late 60s, to about four in ten women in the early 2000s. In addition, it should be noted that the number of cohabitations that have dissolved has also risen over the years (Latten and Mulder 2012).

\(^2\) The source of all graphs presented in this section was the Central Bureau of Statistics (The Netherlands), www.cbs.nl
Another important demographic change characterizing recent decades relates to the experience of parenthood. Figure 3 offers a graphic representation of the parenthood patterns before and during the second demographic transition in The Netherlands. In the figure we observe that the average age of experiencing a first birth has increased since the 1970s, and again, this information has been made available only for females (from age 26.4 in 1970 to age 29.4 in 2010). By far, the most striking trend is represented by the percentage of children born to unmarried mothers. Between 1940 and 1970 the percentage of children born out of wedlock remains low (in 1970 1.4%), however, this level trend starts to change afterwards. After 1980 the upslope accelerates considerably, and in 2010 almost half of the children (41.1%) were born out of wedlock. Nonetheless, it should be noted that many of the unwed births in modern times take place within cohabiting unions.

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*Figure 2. Women’s intentions and choices in cohabitation and marriage*

*Figure 3. Parenthood trends in The Netherlands*

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Although this dissertation does not specifically investigate historical changes, these family trends underscore the importance of the studies conducted in this thesis. Many of the theoretical arguments explaining the role of union formation, union dissolution and parenthood in crime have been based on cohorts of individuals for whom the dominant family formation patterns looked quite different from what it is nowadays. For example, the influences of marriage and parenthood on crime have been described separately. However, in practice, it was often difficult to understand their separate effects as they were generally combined in a single dominant family pattern. The disconnection between the two events in modern times (observed through increased divorce rates, non-marital child birth, unwed or single parenthood etc.) allows for an independent evaluation of each of these adult family roles.

3.2. Criminal involvement and the criminal career approach

In the criminological literature, a ‘criminal career’ refers to the course or progress of criminal offending through the life-course of an individual (Farrington 1992), and it includes an onset (starting point), an ending (termination point), and a duration (Blumstein, Cohen, and Farrington 1988). Although criminal career research arrived at the conclusion that the majority of individuals engaging in crime ultimately stop offending (Laub and Sampson 2003), the path towards desistance is not similar for all offenders. An important contribution was to partition the aggregated crime measures into different dimensions such as: participation/prevalence (recording whether an individual engages in crime or not), frequency/incidence (recording the number of offenses an individual engages in), and nature of crimes committed (Blumstein and Cohen 1987; Laub and Sampson 2001; Blokland and Nieuwbeerta 2010). Moreover, whereas the risk factors for criminal onset have received considerable attention, far less is known about the risk factors determining continuity or change after onset (Farrington 2003).

One of the few accepted ‘facts’ in criminology is that criminal offending is age-related. In cross-sectional studies using aggregated measures of crime it has been shown that the prevalence of offending declines with age (Farrington 1986). In longitudinal studies, it has been additionally demonstrated that for most individuals the frequency of offending also decreases with age (Piquero, Farrington, and Blumstein 2003; Moffitt 1993). Generally, it has been shown that offending starts in early adolescence, increases rapidly until it reaches a peak around age 16, and is followed by a slow decline in late adolescence and young adulthood (Piquero, Farrington, and Blumstein 2003). In The Netherlands, the only public information offering an overview on the association between age and crime was available from the Criminal Career and Life-course Study (CCLS), based on a representative sample of 4% of all criminal cases adjudicated in 1977. The age-crime graph provided by van Schellen (2012) shows that the average number of convictions per year displays the acknowledged unimodal shape, with a steep escalation in adolescence followed by a gradual decline throughout adulthood (Figure 4). However, it should be noted that the peak in offending frequency expected around age 16 was registered later for this sample (around age 20). This difference can partly be explained by the fact that the CCLS recorded conviction dates rather than offense dates.
4. FAMILY FORMATION AND CRIMINAL CAREERS

Existing theoretical frameworks explaining the association between family life events and criminal involvement generally adopt two positions: one stating that variations in criminal and life pathways are unrelated and determined by pre-existing individual differences (Gottfredson and Hirschi 1990; Wilson and Herrnstein 1985); a second one emphasizing a causal association between family and criminal careers (Sampson and Laub 1993). This causal approach has become increasingly popular, and one of its strengths is the focus on the interdependence between different aspects of human lives. First, individuals are positioned in a certain socio-historical context (Elder 1994), and developmental paths can be explained only by accounting for this context. For example, the relationship between family life and offending might differ for traditional and modern families. Before the divorce revolution in the 1970s, the traditional nuclear family represented a “legal, lifelong, sexually exclusive marriage between one man and one woman, with children, where the male is the primary provider and ultimate authority” (Macklin 1980). In modern times, as the family concept has diversified (Elzinga and Liefbroer 2007), explaining the influences of family roles on crime has become more complex and context related. Second, individuals are placed in a social environment where lives are interrelated with family members, peers and other wider social institutions (Elder 1994) and these linked lives have to be accounted for when explaining life paths (Burgess and Akers 1966; Rhule-Louie and McMahon 2007). Third, a temporal perspective is added to the family formation-crime linkage as the developmental perspective accounts for diversity in the timing of events and social roles (Elder 1994). Last but not least, the individual is seen as having an active role in making life choices (Elder 1994), therefore bidirectional influences between life events and crime remain possible throughout life (Laub 2006).
4.1. Effects of family formation on crime

Existing theoretical frameworks tend to define a criminal path by two characteristics: *continuity* and *change* (Mus and Eker 2011). Static theories emphasize continuity in offending by suggesting that the propensity to commit crimes is formed at young ages and remains stable throughout life (not influenced by family experiences). Dynamic theories emphasize both continuity and change in offending, as they are determined by the presence or absence of certain family experiences. Specifically, dynamic theories predict that family life circumstances have unique effects on criminal conduct, regardless of youth experiences and behavior. Deriving from these two general types of theoretical propositions, the following section presents an overview of the most relevant mechanisms explaining continuity and change in adult criminal behavior resulting from the influence of family life events (see also Figure 5 for a visual representation).

**Low self-control**

The best known static approach explaining criminal involvement is the *general theory of crime* proposed by Gottfredson and Hirschi (1990). These authors advocate that the relationship between family events and criminal behavior is spurious, and is in fact explained by individual differences in levels of self-control established in youth (as a result of ineffective parental monitoring and handling of deviant behavior). Specifically, individuals who tend to be “impulsive, insensitive, physical (as opposed to mental), risk-taking, short-sighted, and nonverbal” (Gottfredson and Hirschi 1990: 90) have a general life-long inability for self-control. As such, they are not only more likely to engage in crime, but also encounter difficulties in establishing stable relationships, tend to partner with similarly deviant others, and generally fail social institutions (e.g., marriage, parenthood). Several studies provided empirical support for the idea that low self-control explains both crime and various social outcomes - including family related events (Evans et al. 2006; Polakowski 1994). However, the question remaining is whether the relationship between crime and family formation is explained through social selection (as the general theory of crime states) or social causation (as the dynamic theories argue). If social selection is the only explanation, the association between family circumstances and criminal behavior should disappear after controlling for differences in levels of self-control (Gottfredson and Hirschi 1990).

**Informal social control**

Much of the existing life-course research has been inspired by the work of Sampson and Laub (1993; 2003) who built upon the original social bonding model (Hirschi 1969) by examining the influences of adult “key institutions of social control” (e.g., marriage) on criminal conduct (Laub and Sampson 1993). According to their dynamic theory (*age-graded theory of informal social control*), family formation events represent transformative factors, acting as *turning points* and altering one’s criminal trajectory. Moreover, Laub, Nagin, and Sampson (1998) further emphasize, that it is not the simple presence of a discrete event diverting individuals from criminal lives, but the quality or strength of the social bond. As investment in relationships through conventional social bonding (e.g., marriage) reduces crime, and a weakening of ties with conventional institutions (e.g., divorce) increases crime,
the theory explains both change and continuity through the same causal process. The informal social control theory also considers that investment in social networks is “gradual and cumulative” (Laub, Nagin, and Sampson 1998), therefore an overlap between various family life trajectories might amplify certain effects and become stronger over time. More specifically, an individual benefiting simultaneously from marriage and parenthood (full family package) might have an accelerated path towards desistance compared to an individual experiencing only one of the events (Savolainen 2009).

Building upon this theory, a considerable number of studies found support for marriage effects on crime (King, Massoglia, and MacMillan 2007; Blokland and Nieuwbeerta 2005; Horney, Osgood, and Marshall 1995; Bersani, Laub, and Nieuwbeerta 2009). However, other studies could not confirm this direct influence (Knight, Osborn, and West 1977; Giordano, Cernkovich, and Rudolph 2002; Lyngstad and Skardhamar 2013). The scarcity of studies on the effects of divorce (Horney, Osgood, and Marshall 1995; Farrington and West 1995; Blokland and Nieuwbeerta 2005) and parenthood (Blokland and Nieuwbeerta 2005; Skardhamar and Lyngstad 2009; Savolainen 2009; Kreager, Matsueda, and Erosheva 2010) on offending, and the mixed results these studies provided emphasize the need for further research.

Changes in daily routines

Several authors suggest that the association between family circumstances and crime is mediated by a shift in peer activities. They argue that family circumstances facilitate desistance as they reduce criminal opportunities by diminishing or eliminating participation in the (criminal) peer group (Warr 1998; Laub and Sampson 2003; Cohen and Felson 1979). Although this so-called routine activity explanation has some communality with the informal social control mechanism discussed above, the pathway defined by routine activity theory is expected to be more abrupt than gradual, especially for individuals experiencing their first years of parenthood (Osgood and Lee 1993). Qualitative studies came to support routine activities hypotheses by showing that increases in the amount of time spent within families diminished opportunities for offending (Giordano, Cernkovich, and Rudolph 2002; Laub and Sampson 2003).

Self-transformation

Whereas the informal social control and routine activities theories argue for a direct effect of family life events on crime, other frameworks (cognitive transformation and identity change) emphasize that an individual’s response to family life events depends on cognitive preconditions (Giordano, Cernkovich, and Rudolph 2002; Paternoster and Bushway 2009). Theorists proposing the cognitive transformation mechanism state that readiness or openness to change is a necessary precondition to benefit from family life experiences and enhance the chances of a successful change. However, in their view, the family event itself acts as a reinforcer in the desistance process (Giordano, Cernkovich, and Rudolph 2002). In other words, the process of desistance is first defined by fundamental identity changes (cognitive shifts) followed by desistance accelerators (family life events) acting as “hooks for change” (Giordano, Cernkovich, and Rudolph 2002). Similar to the cognitive transformation theory, the identity change framework (Paternoster and Bushway 2009) focuses on the changes in
one’s self as determinants of desistance. Yet, they further dismiss any association between family formation and crime as they argue that the family event itself is facilitated by the already occurred identity transformation (Paternoster and Bushway 2009).

Given these considerations, an important element in analyzing criminal trajectories is represented by the timing of change. Recent studies have offered some support for the self-transformation mechanism for both marriage (Lyngstad and Skardhamar 2013) and parenthood (Monsbakken, Lyngstad, and Skardhamar 2013).

**Social learning**

Social learning theorists emphasize the interaction with the family environment and the possibility that significant others (e.g. partners) may stimulate and model values favorable to crime and crime involvement (Akers et al. 1979). This view focuses on the dynamic characteristic of observational learning, and argues that criminally oriented individuals stimulate criminal involvement of their spouses, regardless of pre-existing similarities in criminal conduct ( assortative mating). Empirical research focusing on the criminal characteristics of the intimate partners often encountered design limitations (cross-sectional data, static within-marriage partner information, short follow-ups recording the incipient phases of adult life), reducing their ability to draw clear conclusions regarding the influences of criminal partners on offending (Moffitt et al. 2001; Haynie et al. 2005; Woodward, Fergusson, and Horwood 2002; van Schellen, Apel, and Nieuwbeerta 2012).

**Strain**

When family conditions act as sources of stress for the individuals (e.g. family poverty, intimate conflict), involvement in crime may be used as a coping mechanism to solve the tension accumulated. Aligning with this, Agnew (1992; 2006) proposed what is known as strain theory, and argued for the indirect effect of life-circumstances via exposure to strain (Lilly, Cullen, and Ball 2002). For example, the presence of children may increase economic responsibilities, and, in the absence of lawful alternatives, individuals may engage in criminogenic acts ensuring family financial needs. Whereas many sources of strain in life have been discussed in the psychological and sociological literature, causes of strain and explanations of why people react to strain with crime remain to be unraveled by future empirical research. Nevertheless, qualitative research has particularly emphasized financial hardship and negative emotionality as determinants of crime (Wakefield and Uggen 2004; Shannon and Abrams 2007; Corman et al. 2011).

### 4.2. Effects of crime on family formation

The existing literature has mainly focused on explaining the influences of life events on crime, and paid little attention to the influence of criminal behavior on the development of family life. Generally, the few mechanisms explaining the effects of crime on family transitions can be derived from the established static and dynamic frameworks.

From a static perspective, several explanations can be advanced to explain the effects of crime on family circumstances. First, a criminal offender is generally characterized by low
levels of self-control, and tends to engage in actions which are impulsive and risk taking (Gottfredson and Hirschi 1990). As such, offenders may experience more often short and non-rewarding romantic unions, and engage in romantic relationships ordained to fail. Second, socio-economic factors such as lower school achievement, limited employment opportunities and reduced income may diminish the attractiveness of offenders (Graffam, Shinkfield, and Hardcastle 2008). As a result, such individuals may have difficulties in establishing or maintaining a romantic relationship as they may be considered ‘inappropriate family providers’. Third, it has been shown that offenders are more likely to have experienced a disturbed family background such as inadequate parental supervision, neglect or abuse, parental conflict, violence or broken families, parental unemployment or criminal involvement etc. (Farrington 2003). Such a disadvantaged background may have severe psychological implications for adult experiences reflected in conscious abstinence in forming romantic unions or entering parental roles, or limited skills to initiate or maintain romantic relationships.

From a dynamic point of view, scholars have stressed the importance of the labeling/stigma mechanism (Paternoster and Iovanni 1989; Lemert 1967). Specifically, labeling theorists suggest that involvement in crime reduces the opportunities of individuals to adopt a conventional life-style (therefore marry and have children), as the negative effects of being labeled as a ‘criminal’ perpetuate in time and limit their mating chances. In addition, this labeling may have long-term negative consequences, as individuals tend to internalize the criminal role and act in concordance with the resulting criminal self-perception. In conclusion, the labeling mechanism expects a negative causal relation between offending and the so-called favorable life events (union formation and parenthood), and a positive relation with negative events (union dissolution). Whereas some studies showed that individuals labeled as “criminals” have reduced mating opportunities (Sampson, Laub, and Wimer 2006; Huebner 2005; van Schellen, Poortman, and Nieuwbeerta 2011; Western, Lopoo, and McLanahan 2004), and increased probabilities of union dissolution (Lopoo and Western 2005; Apel et al. 2010), results are not consistent across different studies (Lonardo et al. 2010; Rebellon and Manasse 2004). However, it should be noted that much of the existing knowledge derives from research on incarcerated individuals (Apel et al. 2010; Western, Lopoo, and McLanahan 2004; London and Parker 2009; Lopoo and Western 2005) and their life-course developments during and after confinement. These studies have been criticized for limiting our understanding to a selective group of individuals, namely the most serious criminals (Apel et al. 2010). Extending our knowledge to the impact of a criminal record (and not only an incarceration record) on family life events is of particular interest, and especially important in countries such as The Netherlands, known for its lenient penal system (with low incarceration rates and short incarceration periods).

In conclusion, although the study of criminal behavior and family formation is recognized as prominent topic in empirical life-course research, to date little is known about the causal mechanisms underlying desistance (Piquero, Farrington, and Blumstein 2003) or the effects of criminal involvement on family events (Barnes et al. 2011). In addition, line with theorists emphasizing reciprocal causation (Thornberry and Krohn 2001), this dissertation acknowledges that the development of a criminal career interacts permanently with different family life trajectories, and that the bidirectional influences between crime and multiple family-factors need to be examined.
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Figure 5. Theoretical model of the mechanisms linking family life events and criminal behavior.

5. GENDER CONSIDERATIONS

Most of the life-course theories discussed above are intended to apply to both men and women. However, feminist theorists have argued that there is a need for different explanations of the family formation – crime linkage for men and women. One of the reasons for assuming non-gendered pathways was that many of these theories were developed and tested on male offenders, as studies on females were unavailable or did not include “sufficiently large numbers of seriously delinquent girls to provide for a comprehensive analysis” (Giordano, Cernkovich, and Rudolph 2002: 994). With the sharp increase in female offending in recent decades (Hoyt and Scherer 1998), there has been a call for theoretical and empirical contributions addressing existing shortfalls on gender aspects.

The question whether theoretical predictions explaining the family formation – crime linkage should be differently formulated for men and women remains to be answered. Even without creating gender specific predictions, some of the existing theoretical propositions suggest gendered pathways. This is, for instance, the case for Laub and Sampson (2003: 45), who, argued that men marry “up” and females marry “down”; as such, men’s tendency to marry less deviant partners allows them to benefit almost invariably from the institution of marriage. Changes in routine activities may be gender specific as well (Farrington 2003) as various life events (e.g. parenthood) may have a different impact on daily routines of men and women. All in all, the paucity of research examining gender differences makes it very relevant to study whether the relationship between family formation and crime is similar or different for men and women.
6. METHODOLOGICAL APPROACH

6.1. Sample and data

This dissertation is based on a sample of 540 juveniles (270 boys, 270 girls) born between 1969 and 1977, and discharged from a residential judicial treatment facility in The Netherlands in the early 1990s. These youngsters were institutionalized for treatment in the judicial center under a civil law measure or a criminal law measure. In The Netherlands, the civil law measure is generally imposed when a juvenile is under age 18, encounters problems at home or at school (due to adverse family environment, behavioral problems etc.), and needs to be treated outside the home. The criminal law measure is imposed when a juvenile is under the age of 18, and committed an offense. However, it is not obligatory that a juvenile committing an offense is sentenced under a criminal law measure as the legal decision depends on the constellation of multiple factors (psychological and behavioral problems/disorders, the extent and type of delinquent behavior, family situation, etc.). Studies focusing on the characteristics of the juveniles institutionalized under a civil and a criminal law measure have shown that, in fact, they are very similar with regard to personal and background factors, as well as psychological and behavioral problems (Wijkman, van der Geest, and Bijleveld 2006; Hamerlynck, S.M.J.J. et al. 2009). Whereas starting from the 1\textsuperscript{st} of January 2010, juveniles with a civil law measure are no longer institutionalized in a judicial center, this change in the Youth Care Act was not effective when our sample was institutionalized, and the institutions did not ascribe different organizational measures to juveniles with different types of sentencing. In our sample, 80% of the boys and 97% of the girls were committed under a civil law measure. When admitted for treatment, these juveniles were on average age 15, and stayed for an average of 1.5 years in the treatment center. The high-risk characteristics of this group were however visible at young ages as the vast majority of individuals had offended prior to institutionalization (regardless of whether they were committed under a civil or a criminal law measure).

Next to data on the central high-risk group, additional information was collected on all marital partners of our respondents (this was the case for 26% of the men and 20% of the women). Moreover, for descriptive purposes, we constructed a general population sample meant to replicate cohort characteristics at the population level.

The data for this dissertation\(^4\) was collected from various sources of information. First, personal files completed during the treatment in the juvenile center were made available, and a rich file containing personal and background characteristics could be used. For each individual, this data included information from psychological and psychiatric assessments, advisory notes on extensions, treatment evaluations, interviews, etc. (see van der Geest, Blokland, and Bijleveld 2009). Second, the Judicial Documentation abstracts (equivalents of ‘rap sheets’) were obtained from the Ministry of Justice at different moments.

\(^4\) Formal consents for this research have been obtained from different institutions in The Netherlands: the Ministry of Security and Justice, Department of Corrections, and the Municipal Population Register. Ethical permission was obtained from the Ethics Committee of the Faculty of Law (CERCO) of the VU University Amsterdam. The analyses have been conducted using anonymized files.
between 2007 and 2011. These files provided individual-level information for all cases registered at the Public Prosecutor’s Office starting with age 12 (the minimum age of penal responsibility in The Netherlands), the date and nature of offenses committed, and the corresponding verdicts. Analyses within this study focused on both overall measures and specific types of criminal offending. A third source of information was represented by the Judicial Penitentiary Files of the Ministry of Justice, obtained from the Central Prisons Archive in The Netherlands in 2006 and 2013. The digital registrations and/or paper files offered information on the individual’s incarceration history with exact admission date, the facility and unit in which the prisoner was housed, and the exact exit dates (regardless of whether these were through transfer between facilities or early term releases). A fourth source of information was the Municipal Population Register (“Gemeentelijke Basisadministratie” - GBA), a digitalized population registration system managed by individual municipalities in The Netherlands, and containing information on each registered inhabitant. From this database (at various moments between 2008 and 2013), information on family life events such as: marriages (and since 1998 also registered partnerships), divorces (or dissolutions of registered partnerships), births of children, and a set of demographic characteristics has been extracted. Last but not least, between 2010 and 2012 (through the 17Up longitudinal study), individuals were invited to participate in interviews, and extended information on various life-domains (family background, relationships, parenthood, employment, health, substance use, etc.) has been collected through life-history calendars and questionnaires. These interviews increased the quality of the data, especially by recording information otherwise not available through official registrations (e.g. dating, cohabitation, type of parental involvement, etc.). The response rate for the interviews was 50%\(^5\).

As this thesis includes a comparison of The Netherlands and Norway, starting from the high-risk Dutch individuals who became parents within the observation period, a similar Norwegian sample based on a set of chosen characteristics was constructed. This matching procedure led to a Norwegian sample containing 100 males and 189 females. Subsequently, for descriptive purposes, we also constructed a Norwegian general population sample, replicating the birth characteristics of this high-risk group at the population level. The information for the Norwegian sample has been obtained from the administrative records at Statistics Norway.

The use of these various sources of information created a unique dataset, providing rich information on high-risk individuals, marital partners and comparison groups, for a long observation period (up until age 36), and using a wide diversity of quantitative and qualitative characteristics on relevant events.

6.2. Analytical considerations

All the empirical chapters in this thesis apply a longitudinal design, and both within-individual and between-individual analyses are conducted to understand the nature of the

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\(^5\) From the total of 540 individuals, 41 could not be contacted for clear reasons such as death, emigration or psychiatric institutionalization. The response rate was calculated from the remaining 499 approachable individuals.
relationship between family formation and criminal offending. Moreover, to control for selection bias in the relationships investigated, the analyses included a set of carefully chosen covariates (based on the existing theoretical and empirical literature, as well as on the use of statistical testing). Throughout the dissertation, three different analytical techniques have been used: multilevel analysis, survival analysis for repeated events, and generalized additive modeling (or non-parametric smoothing splines). In Chapter 2, *Poisson Fixed and Random Effects* multilevel models have been used to investigate the influence of different family events on the yearly frequency of serious offending. In Chapter 3, using information on a monthly basis, *Cox Proportional Hazard Regressions for Multiple Failures* offered insights into the likelihood of criminal offending (overall and specific types) under the influence of the criminal involvement of the spouse. In Chapter 4, *Logistic Thin Plate Regression Splines* were used to analyze in a flexible manner (without pre-imposed overall shapes) the timing of change in monthly criminal offending around entrance into parenthood. In Chapter 5, the *Logistic Random Effects* multilevel models investigated yearly changes in the likelihood to experience certain family events under the influence of criminal behavior.

### 7. OUTLINE OF THE FOLLOWING CHAPTERS

The remainder of this thesis is organized as it follows. Chapter 2 offers answers to research questions 1, 2 and 3 by investigating the effects of marriage, divorce and parenthood on criminal offending. Chapter 3 provides additional answers to research question 2 by analyzing spousal criminal influences. In Chapter 4, the focus is on the effects of parenthood on criminal involvement, and more in depth answers to research question 3 are provided. Chapter 5 examines the reverse relationship, namely the effects of criminal offending on union formation and union dissolution, and answers to the research questions 4 and 5. As the analyses in Chapters 1 to 4 have been conducted separately by gender, answers to research question 6 are provided in all these four empirical chapters. Finally, Chapter 6 of this thesis includes a general conclusion. It should be also noted that Chapters 2 to 5 were originally written as separate empirical articles. As a result, some repetition in the description of theories and data used throughout the thesis was inevitable.