1.

General Introduction
Juvenile offending is an enduring phenomenon and concern in our society, and it persists from generation to generation (Loeber & Farrington, 2000). Although recent downward trends have been reported in juvenile offending (e.g., Clarke, 2013; LaFree, Curtis, & McDowall, 2015; OJJDP, 2011; Snyder, 2012; Van der Laan & Blom, 2011), there is an increasing trend towards more punitive responses to youth antisocial behavior (Artello, Hayes, Muscher, & Spencer, 2015). Media frequently report on various incidents of crimes, political parties insist on new initiatives, such as minimum sentences (Gabor & Crutcher, 2002), and diverse policies give high priority in responding to juvenile crime (Weijers & Eliaerts, 2008). The traditional welfare-oriented juvenile justice systems focusing on therapeutic interventions have come under pressure in several countries (Junger-Tas & Decker, 2006). Given that delinquency has a very negative impact on the child’s development, and repressive responses to juvenile delinquency have repeatedly proven to be ineffective (deterrence, incarceration without treatment, see Andrews & Bonta, 2010; De Swart et al., 2012; De Valk et al., 2015; Parhar, Wormith, Derkzen, & Beauregard, 2008), we should invest in constructive change-oriented prevention programs.

Although the majority of adolescents eventually desist from offending (almost 85% by the age of 28; Moffitt, 1993), a small group of persistent offenders warrants attention. These youngsters start with antisocial behavior in childhood, are exposed to multiple risk factors, and their criminal behavior continues into adulthood (Loeber, Burke, & Pardini, 2009; Moffitt, 1993; Patterson, & Yoerger, 2002). An early onset of antisocial behavior (between the age of 7 and 12 years) imposes many negative consequences for a person’s life, such as limited educational and employment opportunities (Loeber & Farrington, 2000). The negative consequences of chronic delinquent behavior for both victims and offenders (McGuw & Iacono, 2005; Piquero, Daigle, Gibson, Leeper Piquero, & Tibbetts, 2007), and the high costs to the criminal justice system and the larger society (Cohen, Piquero, & Jennings, 2010), underscore the need of timely delivering effective prevention programs.

There is still much to learn about the conditions under which preventive interventions are effective for youth at risk for a persistent criminal career. To maximize effectiveness of prevention programs, greater knowledge of individual and social risk factors underlying delinquent behavior is needed. Research has shown that poor attachment to parents is an important risk factor for later problems in life, including delinquency (Fearon, Bakermans-Kranenburg, Van IJzendoorn, Lapsley, & Roisman, 2010; Hoeve et al., 2012). Therefore, the attachment relationship between parents and adolescents is considered as an important target in programs aimed to prevent at-risk youth from developing a persistent antisocial behavior pattern. However, it remains unclear how a poor attachment bond between the adolescent and parent becomes related to externalizing problem behavior. This dissertation investigated whether risk and protective factors of individual and social functioning mediate the association between attachment and externalizing behavior (i.e., aggression and delinquency). This knowledge can be used to develop and improve preventive interventions that target delinquent behavior in youth. In addition, the present dissertation brought
together theoretical and empirical knowledge about the effectiveness of youth interventions aiming to prevent persistent offending. Finally, the research project focused on the effects of the Dutch intervention ‘New Perspectives’ (NP), designed to divert adolescents (from age 12) in early stages of delinquency from committing future criminal offenses.

In the following sections the theoretical foundation of this dissertation is described. Subsequently, an overview is provided of knowledge about effectiveness of youth crime prevention. Next, the NP prevention program is introduced, and finally, an outline of this dissertation is provided.

1.1 Theoretical Background

The Risk-Need-Responsivity (RNR) model of Andrews, Bonta, and Hoge (1990a) has been widely used as the premier model for guiding offender assessment, prevention, and treatment. This model contains three principles contributing to effective crime prevention: 1) the Risk principle prescribes that the program intensity should be proportional to the offending risk level (intensive levels of treatment for higher risk offenders and minimal intervention for low-risk offenders); 2) according to the Need principle, interventions should target individual and social factors that are related to criminal behavior; and 3) the Responsivity principle proposes that the style and mode of the program should be matched to the offender’s learning style and abilities (Andrews & Bonta, 2010).

In order to further enhance the effectiveness of delinquency prevention, programs should be responsive to the manner in which etiological factors interact in the process of the child’s social development. To address complexities of causal relations, prevention efforts should be targeted at factors as they emerge and interact during different stages in youngsters’ lives (Hawkins & Weis, 1985). Hawkins and Weis (1985) proposed the social development model, an integration of social control theory (Hirschi, 1969) and social learning theory (Akers, 1977). In this model, the child’s social development is viewed as a process in which the most important units of socialization – families, schools, and peers – influence behavior sequentially. Positive socialization is achieved when children have the occasion within each unit to be involved in conforming activities, when they develop skills necessary to be successfully involved, and when their positive behavior is consistently rewarded (see Figure 1.1). These conditions are likely to increase attachment to others (e.g., family), which inhibits affiliation with delinquent peers, and in turn, prevents delinquent behavior (Hawkins & Weis, 1985, p. 73).

1.2 Individual and Social Mediational Processes

According to the social development model, families, schools, and peers are appropriate targets for intervention, depending on the developmental stage of the child. Interventions focusing on social bonding to the family are appropriate from early childhood through early adolescence (Hawkins & Weis, 1985). On the basis of the social control theory of Hirschi (1969), children internalize conventional norms of society through strong affective bonds
with parents and others, which protects against delinquent impulses. Delinquent behavior, however, will increase if the bond to parents and others is weak (Bowlby, 1944; Hirschi, 1969; Fearon et al., 2010; Hoeve et al., 2012). According to the attachment theory of Bowlby (1969; 1973), adolescents have developed mental representations of self, their attachment figures and their attachment relationships (internal working models), that reflect their caretaking experiences. Disruptive attachments with parents during infancy could lead to the inability to show affection or concern for others, and externalizing behavior problems.

Representations of attachments are cognitions, and we know relatively little about the actual processes that may link such cognitions to externalizing behavior problems. The examination of the roles of mediators in the association between adolescent-parent attachment and externalizing problem behavior would be important to advance our understanding of the link between attachment and different subtypes of externalizing behavior (i.e., delinquency and aggression). In addition, more knowledge about mediational processes can provide guidance for prevention programs to reduce adolescents’ problem behavior (Fearon et al., 2010).

The present study empirically tested whether factors of social functioning (i.e., peer affiliations and parental monitoring) mediate the association between attachment and externalizing behavior. Antisocial peer affiliations (Andrews & Bonta, 2010; Patterson, Dishion, & Yoerger, 2000) and poor parental supervision (Crouter & Head, 2002; Dishion & McMahon, 1998; Hawkins et al., 2000; Patterson, 1986) have been studied as potential social factors related to antisocial behavior. As stated earlier, the formation of social bonds to family (and others) will decrease the likelihood that youngsters will develop attachments to delinquent peers, since the behaviors rewarded by parents and others and those rewarded by deviant peers are not compatible (Hawkins & Weis, 1985). In addition, poor and insecure attachments with parents lead to lower levels of relationship support, more negative interaction (Branstetter, Furman, & Cottrel, 2009), and a greater reluctance of adolescents to provide their parents information on their whereabouts and activities (Kerns, Aspelmeier, Gentzler, & Grabill, 2001; Sampson & Laub, 1994). As a consequence adolescents are less monitored, they spend less leisure time in parental company, and are more attracted by unsupervised peer settings, which increases the opportunity to be involved in delinquent acts (Crouter & Head, 2002; Dishion & McMahon, 1998; Patterson, 1986).
The present study also examined whether factors of individual functioning (i.e., cognitive processes and levels of self-esteem) mediate the association between attachment and externalizing behavior. Self-serving cognitive distortions (Barriga, Landau, Stinson, Liu, & Gibbs, 2000; Helmond, Overbeek, Brugman, & Gibbs, 2014) and low self-esteem (Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005; Trzesniewski et al., 2006) have been related to antisocial behavior. These individual risk factors can also be linked to adolescents’ attachment experiences. Adolescents internalize negative experiences with their parents as insecure internal working models of attachment (Blatt & Homann, 1992), which make adolescents vulnerable to egocentric bias and self-serving cognitive distortions (Gibbs, Potter, & Goldstein, 1995), and to low feelings of self-worth (Gamble & Roberts, 2005; Gomez & McLaren, 2007).

This dissertation concentrated on the mediating role of cognitive distortions, low levels of self-esteem, low degree of parental monitoring, and affiliations with deviant peers in the association between attachment and externalizing problem behavior of adolescents. In the mediation models, a distinction was made between direct and indirect aggression and between aggression and delinquency, because these types of externalizing behavior differ at a conceptual (Hoeve et al., 2012), developmental (Bongers, Koot, Van der Ende, & Verhulst, 2004), and etiological level (Stanger, Achenbach, & Verhulst, 1997). On the basis of previous studies (Eley, Lichtenstein, & Moffitt, 2003; Edelbrock, Rende, Plomin, & Thompson, 1995; Tackett, Krueger, Iacono, & McGue, 2005), we hypothesized that social factors, considered as ‘environmental influences’, play a more prominent role in the association between attachment and delinquency, whereas individual mechanisms were expected to be more important in mediating the association between attachment and aggression.

### 1.3 Youth Crime Prevention

The term prevention refers to a broad array of activities designed to enhance child development and prevent negative developmental outcomes (Deković et al., 2011, p. 533). Prevention programs can be divided in universal, selective, and indicated prevention. Universal prevention programs (primary prevention) target a general population that has not been identified on the basis of individual risk. Selective prevention (secondary prevention) is focused on youngsters whose risk of developing mental disorders is significantly higher than average. Indicated prevention (tertiary prevention) targets high risk juveniles who are identified as having minimal but detectable symptoms of mental disorders (O’Connell, Boat, & Warner, 2009; Welsh & Farrington, 2002). This dissertation focused on selective and indicated prevention.

Youth crime prevention programs have been developed in diverse settings with various degrees of impact on juvenile delinquency. There are several (systematic) reviews that examined the effectiveness of preventive interventions (e.g., Petrosino, Turpin-Petrosino, & Buehler, 2003; Piquero, Farrington, Welsh, Tremblay, & Jennings, 2009; Mulvey, Arthur, Reppucci, 1993; Lösel & Beelmann, 2003; Deković et al., 2011). However, outcomes
of prevention programs have been shown to be only modest. In their narrative review, Mulvey and colleagues (1993) concluded that well-implemented secondary prevention programs, including behavioral and family-based change components, produced reductions in reoffending rates, although not in self-reported delinquent behavior. Promising results of family-based programs were established by a meta-analytic study of Schwalbe and colleagues (2012), indicating that family-based diversion programs resulted in a reduction of recidivism. However, the overall impact of diversion programs on recidivism was non-significant. Moreover, Wilson and Hoge (2012) found that diversion programs were significantly more successful than traditional justice system processes, but differences were no longer significant when a successful research design was used (e.g., RCT, or successful matched control design, independency of researchers). Finally, a meta-analytic study focusing on prevention programs during early and middle childhood, showed no convincing evidence in reducing delinquent behavior in adulthood (Deković et al., 2011). To conclude, there is still no solid evidence for the effectiveness of prevention programs.

This dissertation will be an addition to the existing literature on prevention programs by conducting a meta-analytic study on the effective elements of youth crime prevention programs, and by examining the effects of the Dutch prevention program New Perspectives.

1.4 New Perspectives

In the Netherlands, there is a lack of empirical evidence on the effectiveness of youth crime prevention programs (Van der Put, Assink, Bindels, Stams, & De Vries, 2013). The NP program is acknowledged as a well implemented program based on a strong theoretical foundation (Van den Braak & Konijn, 2006). However, the effects of NP have not been examined by the use of a randomized experiment. A randomized controlled trial (RCT) provides the strongest evidence of causal relations between a participant’s exposure to the intervention (NP) and changes in behavior (Clingempeel & Henggeler, 2002; Weisburd, 2010). Therefore, the present study involves a randomized experiment.

The intensive, short-term program of NP aims to prevent that adolescents at onset of a criminal career will develop a persistent criminal behavior pattern. Secondary program goals include improving social bonds with the social network (in particular with parents and prosocial peers), parenting behavior, cognitive and social skills. The program is based on the theoretical framework of the RNR model (Andrews et al., 1990a). First, NP adheres to the risk principle by providing modules that differ in treatment intensity to adjust to the offender’s risk of recidivism. Second, the multisystemic approach of NP allows treatment of dynamic criminogenic factors, such as cognitive distortions, poor parenting behavior and associations with deviant peers (needs principle). Third, NP is based on the responsivity principle by matching the treatment style to the client’s motivation level. The program also attends to the Transtheoretical Model and the concept of “stages of change” (Prochaska, DiClemente, & Norcross, 1992) by applying techniques of motivational interviewing and individual coaching to influence motivation levels of adolescents. Finally, the NP program
is carried out in a multimodal format by incorporating a variety of cognitive social learning strategies (incl. problem-solving skills training and cognitive restructuring).

This dissertation aimed to gain more insights into the effectiveness of the NP program for youth at risk for a persistent criminal behavior pattern. This dissertation not only examined the overall effectiveness of NP, but also whether differences in program outcomes are influenced by demographic factors (gender, age, and ethnicity) and delinquency factors (history of offending, age of first offense, and severity of previous offenses).

1.5 Dissertation Outline

The outline of this dissertation is as follows. Chapter 2 reports on mechanisms through which adolescent-parent attachment is associated with externalizing problem behavior. More specifically, the study reported in Chapter 2 examined whether the association between attachment and externalizing behavior is mediated by the presence of cognitive distortions, low levels of self-esteem, low degree of parental monitoring and affiliations with deviant peers. Two separate mediation models (delinquency and aggression) were tested to differentiate between direct and indirect aggression and between aggression and delinquency.

The study in Chapter 3 evaluated prevention programs designed for youth identified as being at increased risk for a persistent delinquent behavior pattern. The main research goal of this study was to examine the overall impact of prevention on juvenile delinquency, and whether the effects were influenced by characteristics of the program (e.g., type and intensity of the program), participant (e.g., demographic factors and delinquency levels), and study (e.g., study design).

Chapter 4, 5, and 6 include research on the effectiveness of the Dutch prevention program New Perspectives. Chapter 4 provides a description of the study design, instruments, study constructs, and analytic strategy. Chapter 5 presents a randomized controlled trial of the short-term effects of NP on delinquency and other outcomes (e.g., peer and parent relationships, parenting behavior, cognitive and social skills). Subsequently, this evaluation study investigated whether the program effects were influenced by demographic factors (gender, age, and ethnicity). The study presented in Chapter 6 focused on the long-term effectiveness of NP on delinquency and recidivism, and whether the effects were different for different subgroups with respect to gender, age, ethnicity, and delinquency level (history of offending, age of first offense, and severity of prior offending).

Chapter 7 concludes this dissertation by discussing the overall findings of the studies mentioned above and providing recommendations for research, policy, and the clinical practice.