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Psychosocial development and the development of problem behaviour during adolescence

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Citation

Ezinga, M. A. J. (2008, November 26). *Psychosocial development and the development of problem behaviour during adolescence*. Retrieved from <https://hdl.handle.net/1887/13289>

Version: Not Applicable (or Unknown)

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Downloaded from: <https://hdl.handle.net/1887/13289>

Note: To cite this publication please use the final published version (if applicable).

I General Introduction

I.1 Introduction

Adolescence is a time of change and transition. In a nutshell: it is the “road towards adulthood”. The adolescent period is characterised by the fastest growth of individual development in psychosocial functioning and personality. Several essential characteristics such as identity formation, moral reasoning and social emotions take huge steps in adolescent development. Also, considerable changes occur regarding peer interactions and peer relations. In early adolescence, youth are largely involved in peer-networks and coping with authority figures. In late adolescence, youth individualise more. They are less affected by peer pressure. Also during adolescence, problem behaviour increases. To a great extent, this problem behaviour appears in the shape of mild antisocial behaviour. This type of problem behaviour is part and parcel of the adolescent “*Sturm und Drang*” period.

Criminological and psychological studies have shown that several individual risk factors play a role in the origin of problem behaviour. These individual risk factors are often related to personality or character; regarding the classical personality traits of the Big Five or other theoretical models of personality, several studies concluded that relations exist between these personality characteristics and antisocial behaviour (Loeber & Farrington, 2000; Miller & Lynam, 2001; Thornberry & Krohn, 2003). Especially the traits described as “conscientiousness” and “agreeableness” are related to antisocial behaviour. Furthermore, it is well known that impulsivity, a lack of conscience development, neuroticism, and a need for excitement relate to (some kinds of) juvenile delinquency (Bijleveld, Bakker, & Hendriks, 1998; Miller & Lynam, 2001).

Research has shown that the personality characteristics that are related to problem behaviour can also be seen as developmental dimensions. In other words, it is possible to explain individual differences in personality partially through individual differences in the *development* of personality characteristics. Individual differences in personality may as such be actually developmental differences. It is therefore important to take the pace of development into account.

Criminological as well as psychological research has shown that in late childhood and early adolescence an increase in the *prevalence* of problem behaviour occurs. Also, these studies show an increase in *severity* of problem behaviour. Explanations are sought in various domains of risk factors. There are stable and changing factors (e.g., respectively temperament and moral reasoning) for the adolescent. Factors can act as either risk or protective factors of personality. Research that employs a developmental approach to study these factors that could explain problem behaviour development is scarce however. So, we are relatively uncertain of the exact relation between individual psychosocial development and the development of problem behaviour. As such, the central question to address in this thesis is as follows: To what extent is there a relation between psychosocial development and the development of delinquent behaviour over and above known criminological risk and protective factors?

This introduction will continue with an elaboration on problem behaviour. Then, development of problem behaviour is discussed. Subsequently, the need for a developmental approach is discussed. Lastly, the outline of the various chapters is provided.

1.2 Research on the prevalence of problem behaviour in early adolescence

Research in crime and problem behaviour employs, broadly speaking, two ways of collecting data. These are through the use of self-report questionnaires and through the use of official records. Both types have their advantages, but also their disadvantages. Current thesis uses self-report data. The following paragraph will therefore introduce shortly the findings of recent studies from self-report questionnaire data on problem behaviour prevalence.

A recent study on juvenile self-report problem behaviour was conducted by the WODC (Dutch Research and Documentation Centre) in 2005 (Van der Laan & Blom, 2006). This was a cross-sectional study, repeated every three years, with approximately 1500 respondents in 2005 ranging from 10 to 17 year old. The respondents were asked to report about 33 crimes whether or not they had committed them the previous year and, if so, how many times. The results revealed that more than 50% of the adolescents had committed some sort of offence in the past year. Fare dodging and illegal lighting of fireworks were most often reported. When these two offences were not considered, approximately 40% of the respondents reported a criminal offence. Van der Laan and Blom also mentioned an important difference in gender. Boys committed a criminal offence 1.5 times more often than girls do. Furthermore, they reported significant differences in prevalence between age group of late childhood (10-11) and early adolescence (12-13) and the middle adolescent (14-15) and late adolescent group (16-17).

With respect to frequency, Van der Laan and Blom reported that the most frequent offences (11 or more in a year) were fare dodging, illegal fireworks lighting, verbal discrimination, fighting without injury and graffiti. The study also investigated risk factors and protective factors of delinquency. About 35 factors were investigated related to delinquency; 34 of them were actually related and 23 of them (the majority) could act as either protective or risk factors. Four factors were protective only; seven factors were shown to be a risk factor only. Van der Laan and Blom stated that risk factors were not gender specific as is often thought: In fact, differences between boys and girls were small. One of the most important conclusions Van der Laan and Blom made was that risk and protective factors for delinquency are dynamic, in the sense that the effects of risk and protecting factors on delinquency change with age cohort (e.g., between age 10 and 13) of the adolescent. For instance, the effect of low impulse control as a risk factor for delinquency is different for age 10 compared to age 13, where other risk factors might play a more substantial role at that moment. They also concluded that between early adolescence and middle adolescence some sort of change occurs in delinquency prevalence. From their point of view, suggestions regarding change in school climate and its change of the social influence seemed most likely the reason. They reasoned that with the change in school climate, parental influences become less visible whereas influences from (deviant) peers became more important. This suggestion corresponds with the perspective of Bokhorst and colleagues (2007), who stated that during adolescence the

shift in focus by the adolescent is characterised by less parental dependency and greater interest in spending time with peers (Bokhorst, Sumter, & Westenberg, 2007).

Another national study on self-reported delinquency dates from a relatively longer time ago. In 2003, the Central Bureau of Statistics reported the results of the National Youth study with data from 2002. Here, a sample of almost 10,000 adolescents ranging from 12-18 years old were asked to report about 10 different offences in the past year. Of all students 15% reported that they committed one of the ten offences. The most common offence was a fight outside the school perimeters (14.4%), followed by vandalism and injuring someone who needed medical attention afterwards (9.3%) (CBS, 2003).

Junger-Tas, Haen-Marshall, and Ribeaud (2003) also conducted a self-report study on juvenile crime in various countries in Europe and also The United States. Overall, great similarity was seen between nations in age of offending. Most offending took place between ages 14-18. Furthermore great similarity was seen in the variation of offences adolescents reported. The study followed a categorisation into three clusters of countries. It appeared that adolescents from Northwest European and South European countries had a later age of onset than the adolescents from Anglo-Saxon countries with respect to violence and drug use.

In 2006 "The Home Office", the English governmental statistical research institute, conducted a periodical self-report survey on young people and crime, describing the amount of offending. Among others, they studied antisocial behaviour in the last 12 months (i.e. the year 2005). The results showed that within a proportion of 10-15 year olds a total of 25% of the female sample offended, whereas 30% of the male sample offended. Regarding age we see that respectively from the age of 10-11, 12-13, and 14-15 a total of 20%, 27%, and 34% of the youth committed any type of antisocial behaviour (Wilson, Sharp, & Patterson, 2006).

1.3 Development of problem behaviour

In all likelihood, a relatively small part of the population never commits an offence in their life. A large part of the population shows some sort of rule breaking behaviour once or more in their life. Such offences are mostly seen in adolescence, that is, between 11-18 years old. Many studies have shown that a sudden increase in problem behaviour starts in early adolescence. The peak age of offending is observed around the 16th to 18th year. During this period of adolescence the percentage of youth committing an offence is highest (see for instance Farrington, 1986; Junger-Tas, 1992; Donker, 2004). Most of the youth desist in their criminal behaviour in adulthood (18 years and older).

Thus far, developmental criminology is concerned with three types of theories to explain the age-pattern of problem behaviour: static (i.e., Gottfredson & Hirschi, 1990), dynamic (i.e., Laub & Sampson, 2003), and typological theories (i.e., Moffitt, 1993; LeBlanc, 2005). Static theories are concerned with explaining individual differences in criminal behaviour. The differences can be found in one or more factors that increase the risk for committing a crime. The essence in these types of theories is that the formation of these factors is established early in life and tends to be relatively stable throughout life. Dynamic theories on the other hand aim to study life course dynamics and the influence of life circumstances on behaviour. These circumstances can be increasing the risk

for crime as well as contribute to the desistance of crime. Lastly, criminology uses the typological perspective where qualitative differences between offenders are emphasised. Currently, these theories assume that a large proportion of the offenders are not criminally active and a small proportion is. Each group has distinct mechanisms for their behaviour (Blokland, 2005).

One particular example of a well known typological theory is Moffitt's taxonomic model. Here, the differentiation is made between the "adolescence-limited offenders" and "life-course persistent offenders" (Moffitt, 1993; Donker, 2004). Adolescent-limited offenders are characterised by the fact that they mimic the persistent offenders in their "risky behaviour". Life-course persistent offenders, showing chronically delinquent behaviour, manifest early signs of offending around the age of 8-10 years and do not desist.

The sudden increase in problem behaviour in early adolescence is partially explained through the presence of a so-called "maturity gap", experienced by the adolescent-limited offenders (Moffitt, 1993). This phenomenon occurs in early adolescence and describes the incongruent feelings that adolescents have when they develop to a certain physical maturity, but are not accepted as such by their (adult) environment. This premature pubertal development can result in deviant behaviour and quasi-adult characteristics, such as smoking and promiscuous sexual behaviour. According to Moffitt (1993), adolescence-limited offenders thus mimic the deviant behaviour shown by life-course persistent offenders, which might be a result of experienced peer pressure and desire to belonging to the group.

Next to theoretical explanations, numerous empirical studies have found explanations for the differences and changes in the prevalence of problem behaviour in late childhood and adolescence. Studies from developmental psychology show that (persistent) problematic behaviour already starts in early childhood (Loeber, Green, Lahey, & Stouthamer-Loeber, 1989; Tremblay, 2000). Differences in delinquent behaviour (or inter-individual differences) are often explained through the presence of environmental risk factors (e.g., problematic family situation, negative parental characteristics and the presence of delinquent peers in the neighbourhood or school) and individual risk factors (e.g., low impulse control, neuroticism, and hyperactivity). The change in prevalence of delinquent behaviour (intra-individual difference) is often explained through changes in the adolescent's relations with adults and peers (unravelling relations between youth and parents, and greater focus on peers, start of forming steady relationships). Furthermore, the presence of delinquent peers is considered an important risk factor for delinquent behaviour. Mingling with delinquent peers could be a negative influence in further development. It should be noted that girls are less often and less frequently involved in criminal behaviour; their duration of offending is also shorter than that of boys (see for instance Mertens, Grapendaal, & Docter-Schamhardt, 1998; Nijboer, 1997).

Where developmental criminology uses three types of theories, developmental psychology often uses stage-theories to describe and interpret changes in psychological state and behaviour over time. Stage-driven theories offer a concrete solution to the question as to how the development of general psychological characteristics (such as psychosocial maturity) can be defined. A stage-theory has the capability of operationalising development in disjunctive stages and to monitor transitions in level of development.

1.4 Need for a Developmental Approach

Developmental theories are important to the understanding of psychological cognition and emotion. A lot of contemporary criminological research focuses on cognition, often supported by neurological and neuropsychological findings. However, emotional development is to a considerable deal entwined with overall psychological development and thus also with cognitive development. Studies of the personality development of children and adolescents are therefore important in explaining delinquent behaviour. However, up till now, only few studies have been conducted with respect to the possibilities of psychological theories and the perspectives of personality development for the explanation of problem behaviour. No studies at all have been conducted on the interrelation of personality development with other causal factors. This dissertation has the ambition to further examine these relatively unexplored theoretical crossroads.

Next to the scarce empirical knowledge on the relation between personality development and problem behaviour, there is another reason to relate developmental theory with the study of problem behaviour. Levels of development clearly relate to age-cohorts (see for instance Cohn, 1998). A considerable part of this development takes place between the 8th until 23rd year. This knowledge interconnects with the findings in criminological research where delinquent behaviour increases in early adolescence and decreases at the end of the adolescent period (often between 18th and 25th year). The characteristics of the early levels of psychosocial development and later levels of psychosocial development thus appear to follow the development of problem behaviour. The descriptions of the levels resemble known criminological risk factors (e.g., impulsiveness, lack of self-control and an egocentric attitude). During these phases problematic behaviour may increase for a part due to the psychological states that are associated with the levels.

Over the years, many psychologists have debated on how psychosocial maturity develops. Steinberg and Caufmann summarised it in four areas: 1) the ability to control the own impulses and emotions, 2) the development of autonomy of adolescents in relation to their parents and peers, 3) the increasing capacity to sympathise and empathise with others and understand other peoples' differing opinions, 4) an increasing feeling of responsibility to themselves and toward others (Steinberg & Caufmann, 1996). One person who succeeded to develop a theory on psychosocial development in a way that it can be measured is Jane Loevinger. The following paragraph will describe in some more detail her perspective on psychosocial development.

1.5 Psychosocial Development

Loevinger's theory on psychosocial development translates the theory of psychosocial maturity to a measurable construct. Especially regarding the first area that Steinberg and Caufmann describe, her theory made psychosocial development more concrete through carefully designed levels, each having its own qualitatively different characteristics. Westenberg revised Loevinger's theory and created a perspective where psychosocial maturity became related to age-cohorts (Westenberg Drewes, Siebelink, Treffers, Jonckheer, & Goedhart, 2000). As such, it is possible to measure psychosocial development through standardised procedures. At first, Loevinger theorised that the "ego devel-

opment”, her original definition, should be considered as completely independent of age. With the use of age-cohorts, deviance in development became visible. Here the practical value of the revised theory and its instruments is revealed.

Loevinger (1976) described different stages of ego¹, a term Loevinger used for the developmental framework through which each individual interprets the world. Psychosocial development is viewed as personal growth experienced by every individual, entailing changes in impulse control, conscious preoccupations, character development and interpersonal orientation (the view on one self, on others, and the third-person-view on interaction between two persons). A central tenet is that the theory of psychosocial development consists of various levels and that individuals have to go through the levels in a fixed pattern. The theory identifies nine developmental levels², each of them having its own unique characteristics. As far as the developmental levels of *early* adolescents are concerned, three of them are most relevant: the so-called Impulsive level (E2), the Self-protective level (E3), and the Conformist level (E4). Before the Impulsive level and further levels described above, a child enters the pre-social or Symbiotic level (E1). This level develops throughout the first years after birth and is therefore not measurable. The levels following the Conformist level E4 are the Self-awareness level (E5), the Conscientious level (E6), the Individualistic level (E7), the Autonomous level (E8) and the Integrated level (E9) (see Westenberg et al., 2000, for a detailed description of these levels). As transition from one level to the next is often gradual, also transition levels are identified between each level (Loevinger, 1976). Table 1.1 summarises the characteristics of the five developmental levels that are most relevant from early to mid-adolescence.

Table 1.1 Levels of Psychosocial Development in Early to Mid Adolescence

	Description
Impulsive E2	Impulsive, egocentric, dependent, preoccupied with bodily feelings
Self-protective E3	Opportunistic, manipulative, wary, preoccupied with control and “trouble”
Conformist E4	Respect for rules, cooperative, loyal, preoccupied with appearance and correct behaviour
Self-awareness E5	Exceptions allowable, helpful, self-aware, preoccupied with feelings, problems, adjustment
Conscientious E6	Self-evaluated standards, self-critical, intense, responsible, preoccupied with motives, traits, and achievements.

Note. Based on Loevinger, J. (1997). Stages of personality development (p. 203). In R. Hogan, J. Johnson, & S. Briggs (Eds.), *Handbook of Personality Psychology* (pp. 199-208). San Diego, CA: Academic Press. Reprinted with permission.

- 1 Loevinger referred in her theory to stages of ego development. This ego is not defined as in the psychoanalytical theories. Nonetheless, current thesis will refer to psychosocial development or psychosocial maturity, which is a satisfying and more concrete definition for the theory.
- 2 This thesis uses the concept *level* instead of *stage*. Reason to do so is that stage implies a hierarchical tendency in psychosocial development, whereas the theory states that the levels are qualitatively different and one is not per se better than the other. Furthermore the definition of level, when compared to stage, assumes a more gradual development.

In the Impulsive level (E2), which is most prevalent until the age of ten, there is a fast admittance to aggressive, but also empathic impulses. Impulsive children expect that others will satisfy their needs and desires. At the same time they expect that parents are giving guidelines of which behaviour is allowed and which is not. This obedience is nevertheless overshadowed by their impulsivity.

The Self-protective level (E3) is most prevalent in pre- and early adolescence, from 10-13 years, the same period in which the steepest increase in prevalence of problem behaviour occurs. Early adolescents in the Self-protective level have an ability to manage things independently and they may feel indisputable. This level is qualitatively different from the Impulsive level, which is characterised by dependency on others and in which autonomous behaviour rarely occurs. In the Self-protective level, rules made by others are meant to be broken, as long as one does not get caught or punished. Reactions of adolescents in this level are often opportunistic; adolescents search for, mostly, instrumental relationships with others. The adolescent attempts to control his/her impulses and emotions, but at the same he/she denies and keeps off negative emotions. As a consequence, the adolescent presents him/herself as being unassailable.

The Conformist level (E4) that generally sets in around the age of 12-13 is, unlike the Self-protective level, characterised by the importance given to equality and reciprocity in relationships. Relationships with others have become relevant goals. This level involves an important shift in thoughts of the adolescent: it is a change from the relatively egocentric character of the previous level into a more pro-social attitude towards the world. However, conformist behaviour is also possible towards non-conventional groups; identification occurs through detecting expressions of social desirable behaviour and criticism or rejection. The prevalence of the Conformist level increases strongly during middle adolescence (Westenberg et al., 2000).

In adolescence, the last relevant level is the Self-awareness level (E5). Here, the focus is changed to the (inner) Self, instead of the group. Rules are guidelines while in the previous level rule obedience is essential. The personal feelings and characteristics do not have to be in line with the characteristics that are socially desirable. One consequence of the focus towards the own individual is that there is more caution regarding influences by others. This does not imply that the outer world is totally irrelevant; Self-aware individuals are sensitive to appreciation and also concerned with rejection. Unlike the more collective constitution in the Conformist level, fear for loneliness is here seen as the price to be paid when trying to hold on to your own personality.

In order to measure and test her theory, Loevinger constructed a sentence completion test. Persons were asked to complete the incomplete sentences as they wished. Results were then linked to a protocol summing all the most prevalent answers and related the answers to various psychosocial stages. In order to meet the assumptions necessary for empirical testing and complete a protocol, Loevinger developed a core procedure for measuring ego development: micro-validation (see also Westenberg et al., 2000). The essential feature for micro-validation in this instrument is a “feedback loop” between data and theory. This loop allows the model to alter protocol information from the scoring manuals and theory at the same time. Contemporary review studies concluded that the sentence completion test demonstrated impressive construct validity in numerous studies and substantial incremental validity (Lilienfeld, Wood & Garb, 2000; Manners & Durkin, 2001).

1.6 Research on Loevinger's theory of psychosocial development and delinquent behaviour

The relation between level of psychosocial development and problem behaviour has been studied to a limited extent. There are three studies of relevance. Frank and Quinlan (1976) studied the relation between girl delinquency and levels of psychosocial development. Delinquent girls were significantly more often in lower developmental levels (mostly E2) than non-delinquent girls. Non-delinquent girls were more prevalent in the Self-protective level (mostly E3). An additional finding was that reasons for fighting differed qualitatively between the Impulsive level and the Self-protective level. Impulsive girls fought randomly without a reason, where self-protective girls only fought when they had to (Frank & Quinlan, 1976). So, the distinction with psychosocial maturity levels made it possible to distinguish instrumental arguments for committing an offence from (basal) impulsive reasons.

More recently, Krettenauer and colleagues (2003) carried out a longitudinal study on psychosocial development and behavioural problems. They found that psychosocial development predicted externalising problems. The largest prevalence of externalising problems was found among youths in the Impulsive and the Self-protective level. Further results indicated that children with externalising problems had stagnated in their psychosocial development around the 12th year, i.e., in early adolescence (Krettenauer, Ullrich, Hofmann, & Edelstein, 2003).

Hauser and colleagues (1990, 1991) did not emphasise the possible relation between adolescent psychosocial development and problem behaviour. However, they contributed significantly to the understanding of psychosocial maturity from a developmental point of view. In their studies, particular attention was given to underdevelopment of psychosocial maturity. The developmental aspect that Hauser studied originated from the implementation of paths of psychosocial development instead of studying levels of psychosocial development. The research focussed on the interaction between the adolescent and his parents. Results showed that adolescents on a pre-normative psychosocial path had more superficial and difficult parental relations (Hauser, Borman, Powers, Jacobson, & Noam, 1990; Hauser, Powers, & Noam, 1991). The latter phenomenon has already received support as a risk factor for problem behaviour (Loeber & Stouthamer-Loeber, 1986; Hoeve, 2006).

Next to the studies mentioned above, other studies also showed evidence for an association between lower levels of psychosocial development and a higher prevalence of conduct disorder or other problem behaviour (DiNapoli, 2002; Noam, Hauser, Santostefano, Garrison, Jacobson, Powers, & Mead, 1984; Noam, Paget, Valiant, Borst, & Bartok, 1994; Noam, Recklitis, & Frome-Paget, 1991; Recklitis & Noam, 2004).

There are several reasons that make the theoretical framework of Loevinger promising for investigating problem behaviour. First of all, the empirical studies described above, showed a relationship between behavioural problems and criminal behaviour on the one hand, and psychosocial development on the other hand. In general the studies revealed that behavioural problems are related to the Impulsive level and Self-protective level (Frank & Quinlan 1976; Krettenauer et al., 2003). It is important however, to acknowledge that the samples used in these studies were entirely "clinical", i.e., the sample consisted of patients or delinquents and is rather unrepresentative for the general population.

As such, it is difficult to assess if the relationship between behavioural problems and psychosocial development can be generalised to the population. It is also unknown if more mild delinquent behaviour relates to the Impulsive and Self-protective level. Lastly, within such a clinical sample it is very well possible that the relationship is spurious. This means that certain levels of psychosocial development and problem behaviour are presented simultaneously, but do not necessarily have a relation with each other. The population used could very well already be a high risk group of showing problematic behaviour, due to other factors.

A second and related reason is that, on the one hand, empirical studies reported that serious problem behaviour is related to stagnating psychosocial development (that is, stagnating in the Impulsive level). A possible explanation is that a stagnating development leads to incongruence with peers and skewed expectations from peers and authorities. This social effect does not contribute to a re-boost in psychosocial maturity. There are also results that suggested a negative effect on psychosocial maturity when the cause is found in adverse parental circumstances (e.g., families with bad parenting practices). As a result the children's psychosocial maturity cannot reach its potential and leads to stagnation in their development (Hauser et al., 1990; Hauser et al., 1991). Also, not only environmental factors play a role in deviant psychosocial development. On an individual level, criminological and psychological research clearly points out that several personality characteristics are related to delinquent behaviour (e.g., basal aggressive behaviour, temper, and lack of impulse control) in the Impulsive level. These personality characteristics are factors that relate to the description of the Impulsive level. All these similarities suggest that a stagnating psychosocial development may be related to serious forms of misbehaviour and delinquency. This has however not been studied yet.

On the other hand, stagnation of psychosocial development cannot explain the general increase of milder forms of problem behaviour in early adolescence. From a normative developmental perspective, deviant behavioural outbursts are controlled and corrected by parents and authorities. As such it is very well possible that relatively mild forms of problem behaviour, limited to the adolescent period, associate with a normative psychosocial development. Loevinger's theory of psychosocial development offers clues for this, specifically regarding the Self-protective level, which has several characteristics that are congruent with relatively mild offences. For instance, adolescents in the Self-protective level become more independent from their parents and develop feelings of being invulnerable. They strive to fulfil their needs in a more calculated way. Rules that stand in the way to obtain these needs are in a sense "meant to be broken". Therefore, it can be suggested that mild misbehaviour and delinquency associates with the normative developmental level in early adolescence. This normative aspect needs also to be studied.

A third reason for investigating the relation between psychosocial development and problem behaviour regards the orientation approach. Either the focus may be laid on a stage-oriented psychosocial development of the adolescent, or on an approach of normativity of development. This stage-oriented approach considers one particular level in an age cohort, mostly the normative level. All other psychosocial levels are considered "deviant". This approach implies that when an adolescent is not in the age-conform level, psychosocial development is not normative. It is rather complicated to implement this approach for studying deviant behaviour. Frank and Quinlan used a stage-oriented approach where the Conformist level was normative in the comparison between delin-

quent and non-delinquent girls (Frank & Quinlan, 1976). Similarly, Hauser used a stage-oriented approach in his longitudinal research.

The concept of creating paths around the Conformist level has however led to interesting results on the study of parent-child interaction (Hauser et al., 1990). The interpretation of this research all focussed on pre-conformist and post-conformist levels of psychosocial development. Krettenauer and colleagues also used a stage-oriented approach in the longitudinal investigation of internalising and externalising problems relating to ego-level attainment (Krettenauer et al., 2003). Although these studies point out which levels are more common in adolescents who exhibit deviant behaviour, they are not able to place these results in a developmental perspective because normativity itself changes over time: the level that is normative changes. Therefore, studying one particular level in deviant behaviour does not seem very helpful.

A normative approach instead focuses more on the development of the adolescent and places relevance more to the relative individual *development* instead to the absolute *level* of psychosocial development. Over time, the normative psychosocial level of the person changes in relation to the age of the adolescents. Subsequently, the deviance of certain behaviours changes over time. This approach of relating development of psychosocial maturity to problematic behaviour therefore is a more promising theoretical perspective. Lastly, problem behaviour has a similar pace of development in early and mid adolescence as psychosocial maturity. They both change a lot from the age of twelve year onwards. This approach can therefore also explain if their changing pace in development relate to each other.

In this thesis various operationalisations of psychosocial development were used. Next to studying variation in *level* of psychosocial maturity, the longitudinal studies also analyses *paths* of psychosocial development from Wave 1 (2002) to Wave 2 (2004). These paths are partly inspired by the work of Hauser and colleagues and the study of Hennighausen and colleagues (Hauser et al., 1990; Hauser et al., 1991; Hennighausen, Hauser, Billings, Schultz, & Allen, 2004). Five different paths are constructed: The Normative path (normal psychosocial development from Wave 1 to Wave 2); The Stagnating path (no development between Wave 1 and Wave 2); The Lagging behind path (delayed development from Wave 1 to Wave 2); The Precocious path (speeded development from Wave 1 to Wave 2); and lastly the Regressing path (a descending development from Wave 1 to Wave 2).

1.7 Data in current thesis

In 2002, the Netherlands Institute for the Study of Crime and Law Enforcement (NSCR) started a longitudinal, multi-wave study called the “NSCR School project”. This study involved around 2000 students from 12 different school locations in The Hague and environment. The variety in schools gave the opportunity to achieve enough variation in school contexts. As such, some form of generalisation regarding the results was possible. The project focussed on the average to lower educational type of secondary school

level, called VMBO³. Several reasons are based on the notion of choosing these adolescents. First of all, adolescents at this school level are the largest category in secondary school and, secondly, they pose a relatively high risk in The Netherlands for behaving deviant. Completion of the questionnaires was done in the class. The data was collected through a computerised questionnaire. With the completion of the questionnaire, the students received a small incentive (CD coupon of € 5, -). The study's aim was to collect as much data as possible on students' behaviour in school and outside the school. The questions primarily focussed on the behaviour that was (and still is) brought into attention: problem behaviour. The survey contained, next to problem behaviour, also other questions on demographical information, personality characteristics, school climate, parental climate and peer situations.

The project collected data from the entire period that the adolescents undergo their school career at the VMBO level. This was made possible through the use of an accelerated procedure of data collection. The data sample was divided in two cohorts, A and B, and was collected simultaneously. So, in 2002 adolescents in the first (A) and third (B) year of secondary school were asked to fill out the questionnaires. In 2003, the second (A) and fourth (B) year were asked to complete the questionnaire. In 2004 the fourth year of cohort A is for the last time asked to complete the questionnaire. This procedure gave the opportunity to create a perspective on how these adolescents develop. The current study on psychosocial development uses data from cohort A in the first (2002) and third year (2004) the adolescents are in school. The sample distribution can be seen in Table 1.2.

Table 1.2 Distribution of the Sample in Time 1, Time 2, and Longitudinal after Attrition

	2002	2004	2002 → 2004
Total in sample	1048 (100.0%)	949 (100.0%)	—
Total	811 (77.4%)	868 (91.5%)	539 (100.0%)
Boys	418 (51.5%)	440 (50.7%)	271 (50.3%)
Girls	393 (48.5%)	428 (49.3%)	268 (49.7%)

Each time, the sample of adolescents was tested with two instruments; one instrument regarding the general questionnaire concerning problem behaviour, peer factors, and parental factors, and one instrument concerning the measurement of psychosocial development. The sentence completion test (youth version originally named the “Zinnen-Aanvullijst Curium” (or ZALC) measured the levels of psychosocial development. The time interval between these measurements was relatively short (within approximately two weeks).

3 This school type is most common seen and represents for a considerable part the adolescents present in South Holland. We chose this particular group, because these children are highest in risk of behaving problematic.

1.7.1 Variables

The current thesis addresses general problem behaviour. There are differences in frequency and severity between of problem behaviour. In order to make proper interpretations, several distinctions are created throughout the following studies. The first distinction made is between misbehaviour (or rule breaking behaviour) *in* school and delinquent behaviour *outside* school. The “misbehaviour in school” category has 10 items varying from throwing things in class to “threatening the teacher”. Overall, the items are more characterised as rule breaking behaviour. The other category is delinquency outside school. Here, 13 items are asked varying from fare dodging to robbery and car theft.

A second distinction that is made throughout the studies regards severity. There is a rough differentiation made by looking inside school and outside school. However, by viewing the total of 23 items separately on severity, current thesis aims to get more hold on the type of offence in relation to the level of psychosocial maturity. Six criminologists were asked to complete an enquiry on severity. All 23 items were displayed and each respondent was asked if they considered the offence type was mild, moderate or severe. An offence is mild when the criminologists thought the behaviour is really deviant and problematic after the adolescent has committed the offence *six times or more* in a year. An offence is moderately severe when the criminologists evaluated the offence as deviant when it is committed *three times or more* in a year. Lastly, an offence is severe when the criminologists evaluated the offence as deviant when it is committed *one time or more* in a year. All interpretations were analysed. Offences were rated according to the interpretation of the majority, and for some offences the authors decided the category of severity as the criminologists’ decision reached a tie. Table 1.3 gives an overview of the items used and the distinctions made per item on category and severity.

The research question in this thesis also mentions the presence of criminological factors included in the study. These factors will be examined on a psychological level and on a social level. The psychological factor that will be studied is “Low Self-control”, stemming from the General theory of Crime by Gottfredson and Hirschi (1990). This variable consists of three sub dimensions: “Impulsivity”, “Adventure seeking” and “Temper”. These variables are measured by using scales from Grasmick and colleagues (1993), who examined and operationalised the theory of Self-control (Grasmick, Tittle, & Bursik, 1993). The social factors used can be found on two dimensions: One dimension concerns parental influences. Here, the following scales are used: “Parental bonding”, “Parental supervision”, “Experienced warmth by the parents”, and “Time spent with the parents”. The other social dimension is peer influences. For this group we used the variable “Social learning from peers”. It is a combined variable out of two separate scales (“Peers reinforcing deviant behaviour” and “Peer-group pressure”). The second variable is “Delinquency reported of peers”. The last variable is “Time spent with peers”. The scales concerning parents are mostly inspired by the social control theory (Hirschi, 1969) whereas the scales concerning peers were inspired by the social learning theory (Akers, 1998).

Table 1.3 Types of Problem Behaviour and Severity Rate (Mild Severity = 6; Moderate Severity = 3; Severe = 1)

Misbehaviour in school	Frequency of behaving problematic
Throw things in class	6 times or more
Verbal bullying	6 times or more
Physical bullying	3 times or more
Graffiti in school	3 times or more
Vandalism	3 times or more
Theft in school < €5, -	3 times or more
Theft in school > €5, -	1 time or more
Fighting with injury	1 time or more
Fighting without injury	3 times or more
Threatening the teacher	1 time or more
Delinquency outside school	
Graffiti	3 times or more
Vandalism	3 times or more
Fare dodging	6 times or more
Shop theft < €5, -	3 times or more
Shop theft > €5, -	1 time or more
Buying stolen goods	3 times or more
Theft of bike/moped	1 time or more
Car theft	1 time or more
Burglary	1 time or more
Robbing	1 time or more
Theft otherwise	1 time or more
Fighting with injury	1 time or more
Fighting without injury	3 times or more

1.8 Outline

This thesis aims to examine whether psychosocial development can contribute to the answering of the question why a juvenile offender increases in misbehaviour or even commits an offence. As such, this thesis describes and tests the relation between psychosocial development and the development of problem behaviour from early to mid adolescence. The following paragraph gives a brief description of the four empirical chapters. In Table 1.4 a schematic representation is given of the four chapters⁴.

⁴ The definitions on (levels of) psychosocial maturity and problem behaviour are uniformed throughout the thesis in the various chapters.

Table 1.4 Overview of Empirical Chapters

	Chapter 2	Chapter 3	Chapter 4	Chapter 5
Question	To what extent is there a relation between delinquent behaviour and the stage of psychosocial development?	To what extent do levels of psychosocial development have an independent and complimentary effect on delinquent behaviour besides the effect of different aspects of self-control?	How and to what extent are pathways of psychosocial development related to individual differences in involvement and development of problem behaviour in adolescence?	What is the supplemental contribution of psychosocial development on problem behaviour in early to mid adolescence over and above the influence of parent behaviour and peer influence?
Data	– School project Wave 1	– School project Wave 1	– School project Wave 1 & 3	– School project Wave 1 & 3
Dependent variable	– Misbehaviour and delinquency items	– Mild/Moderate/ Severe misbehaviour – Mild/Moderate/ Severe delinquency	– Mild/Moderate/ Severe misbehaviour – Mild/Moderate/ Severe delinquency	– Total scales of problem behaviour
Independent variable	– Levels of psychosocial development	– Levels of psychosocial development – Self-control dimensions	– Regressing path of psychosocial development – Stagnating path of psychosocial development – Lagging path of psychosocial development – Normative path of psychosocial development – Precocious path of psychosocial development	– Precocious path of psychosocial development – Underdeveloping path of psychosocial development – Parental supervision – Parental Bonding – Exp warmth parents – Time spent parent – Time spent peers
Statistical technique	– Chi-square analysis	– Analysis of (co)-Variance	– Analysis of Variance – Paired sampled T-test	– Linear Regression analysis

Chapter two investigates the cross-sectional relation between types of problem behaviour and level of psychosocial development in early adolescence. We look at possible resemblances with earlier studies by Frank and Quinlan (1976) and Krettenauer et al. (2003). In Chapter three the level of psychosocial development is studied with a criminological variable, namely, self-control. This chapter deals essentially with the cross-sectional part of the central research question. The main question is: to what extent do levels of psychosocial development have an independent and complementary effect on delinquent behaviour *over and above* the effect of different aspects of self-control? Gottfredson and Hirschi (1990) view the level of self-control, with impulsivity as a sub trait, as relatively stable over time. They also state that the level of self-control is early established in childhood. The theory of psychosocial development on the other hand views “control over the Self” as a developing impulse control. Chapter four concerns the development of problem behaviour and its relation with the development of psychosocial fac-

tors. This relation is investigated through the implementation of paths of psychosocial maturity. As such, the study is capable of testing levels (on time 2) and paths (from time 1 to time 2) of psychosocial maturity in relation to the way problem behaviour develops. It is expected that a deviant, troubled psychosocial development associates with serious problem behaviour. At the same time, it is expected that differences are seen in level of problem behaviour between the normative development and deviant development. Although one would expect little or no problem behaviour occurring in a normative development, we tested this as a hypothesis. In Chapter five the longitudinal effect is studied of psychosocial development, peer factors and parental effects on the development of problem behaviour. This chapter represents to a great deal the central research question from a longitudinal perspective: To what extent is there a relation between psychosocial development and problem behaviour in early to mid adolescence *over and above* the influence of parent behaviour and peer influence? Chapter six gives a summary of the findings presented in each chapter. Furthermore, we recapitulate the interpretations of the various research questions that have been answered. With the answers found on the various research questions that will be addressed, this thesis aims to provide future theoretical and empirical directions in field of developmental criminology and developmental psychology.

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