

**The Development of
Deviant and Delinquent Behavior over the
Life Course in the Context of Processes of
Social Inequalities**

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DFG Research Center (SFB) “From Heterogeneities to Inequalities”

Whether fat or thin, male or female, young or old – people are different. Alongside their physical features, they also differ in terms of nationality and ethnicity; in their cultural preferences, lifestyles, attitudes, orientations, and philosophies; in their competencies, qualifications, and traits; and in their professions. But how do such heterogeneities lead to social inequalities? What are the social mechanisms that underlie this process? These are the questions pursued by the DFG Research Center (Sonderforschungsbereich (SFB)) “From Heterogeneities to Inequalities” at Bielefeld University, which was approved by the German Research Foundation (DFG) as “SFB 882” on May 25, 2011.

In the social sciences, research on inequality is dispersed across different research fields such as education, the labor market, equality, migration, health, or gender. One goal of the SFB is to integrate these fields, searching for common mechanisms in the emergence of inequality that can be compiled into a typology. More than fifty senior and junior researchers and the Bielefeld University Library are involved in the SFB. Along with sociologists, it brings together scholars from the Bielefeld University faculties of Business Administration and Economics, Educational Science, Health Science, and Law, as well as from the German Institute for Economic Research (DIW) in Berlin and the University of Erlangen-Nuremberg. In addition to carrying out research, the SFB is concerned to nurture new academic talent, and therefore provides doctoral training in its own integrated Research Training Group. A data infrastructure project has also been launched to archive, prepare, and disseminate the data gathered.

Research Project A2 “The Emergence and Development of Deviant and Delinquent Behavior over the Life Course and its Significance for Processes of Social Inequality”

The life-course approach can be used to study the emergence of deviant and delinquent behavior longitudinally from both psychological and sociological perspectives. This project focuses on the relationship between the development of these behaviors and the consolidation of social inequalities and social exclusion. The goal is to identify not only factors that facilitate processes of "dropout" from deviance and delinquency and promote "entry" into normal biographical life courses, but also factors that facilitate a long-term persistence of deviance and delinquency. The research project will apply a cohort sequence design that makes it possible to study the participants' development from preschool age until the fourth decade of life.

Disciplines: Sociology/Psychology

Research topics: Social inequality, longitudinal research, developmental research in psychology, and the sociology of crime

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Background. Although deviant and delinquent behavior peaks in adolescence, it is not limited to this period of life. Deviant and delinquent behavior can be understood as a feature of heterogeneity, which can result in social inequalities. Heterogeneities and social inequalities are important in its onset, continuation, and change. The life course approach and interdisciplinary cooperation between sociology and psychology make it possible to obtain new insights in the field of criminological research and the related developments of social inequalities during the life course.

Objectives. This longitudinal study examines the development of deviant and delinquent behavior from a sociological and psychological point of view. The study focuses on the relationship between the development of deviant and delinquent behavior on the one hand, and the consolidation of social inequalities and social exclusion on the other. Over the life course, it examines factors and processes that foster the onset and persistence of a deviant and delinquent life course, as well as turning points that lead to a normative biography.

Method. The study design is a cohort sequential design, with three cohorts assessed at two locations. Students from the fifth and ninth grade filled in a questionnaire at schools in Dortmund and Nuremberg from February to July 2012, with a focus on low-track students. There will be yearly follow-up measurements. A cohort of students from the third grade will be included in 2014. The data are based on self-reports in the form of a questionnaire, which includes data about self-reported delinquency (i.e., “dark figures”). Data from the teacher and parent reports, biological data, and official statistics will be included in the next waves. The instruments used are both established scales with psychometric indices and revised or newly developed scales. Contrary to the original conception, elementary-school students will be integrated on an ongoing basis from the third wave in 2014 (they will be in third grade at that point). This was decided due to the recommendation of an expert meeting prior to the start of the project and unexpected financial restrictions.

Data. The whole sample consists of about 1,330 students from the fifth grade and about 1,420 from the ninth grade, altogether more than 2,750 students.

Conclusions. Initial results show evidence for the ubiquity of crime and deviance among students. The younger age group has proved to be a good starting point for the observation of the onset of delinquency. Although the age-crime development cannot be described appropriately using cross-sectional data, the comparison of the two cohorts indicates a clear increase of delinquency and deviance within the observed part of the students' life course.

Project A2 is promising because of its 12-year design, its close connections with project A1 and A6, and its novel research focus in the German-speaking area.

Keywords: deviance, delinquency, life course criminology, social inequalities, longitudinal study

1 Theoretical Background

This project combines a sociological and a psychological perspective on the research topic of deviant and delinquent behavior. The two scientific disciplines can complement each other theoretically, methodologically, and empirically. Because of the study's interdisciplinary framework, the theoretical, methodological, and empirical background is presented separately. In both disciplines, the longitudinal approach in combination with a cohort-sequential design is highly desirable.

1.1 Sociological-criminological longitudinal research

Four theoretical tendencies in particular influence sociological-criminological longitudinal research: the attachment and control approach (Hirschi, 1969), the theory of social disorganization (Shaw & McKay, 1942/1969), anomie theory (Merton, 1957/1968), and the theory of differential associations (Sutherland, 1968).

Three of the most important sociological longitudinal US studies are the National Youth Survey (Elliott, Huizinga & Ageton, 1985), the Rochester Youth Development Study (Thornberry et al., 2003), and the Denver Youth Study (Huizinga, Weiher & Espiritu, 2003). These panel studies try to develop the classical theories into an integrative model. Criminological and sociological-criminological research in Germany has taken up these integrative approaches, but to a lesser extent (e.g., Prein & Schumann, 2003). One example is the longitudinal study *Crime in the Modern City* (*Kriminalität in der modernen Stadt* or *CRIMOC*; Boers et al., 2010). This aims to analyze the structure of delinquent developments over the life course. Its analytical model includes three research levels: a) the individual level (i.e., delinquent behavior, orientation on delinquent norms and beliefs), b) the sociostructural level (i.e., social environments such as education, social networks, social control, etc.), and c) formal social control (i.e., criminalization and individual and social reactions to it). Up to now, four data collections have taken place in Münster and eight in Duisburg.

Two current theoretical approaches that combine several aspects of the four traditional theories mentioned above are key to project A2: the age-graded theory of informal social control developed by Sampson and Laub (1993; 2003) and the situational action theory (SAT) developed by Wikström (2006). Sampson and Laub's (1993; 2003) theoretical ideas are based on their reanalysis of the longitudinal data collected in the Glueck and Glueck study (1950). The sample consisted of men who were interviewed in their youth (aged between 10 and 17), their early adulthood (aged 25), and their early 30s (aged 32), and re-interviewed about their life

course at retirement age (between 61 and 69). The database consists of data from official crime statistics, from the initial interviews, and (in the case of Sampson & Laub, 2003) from detailed narrative interviews carried out by Sampson and Laub in the late 1990s. The authors found three typical criminal careers: persisters, desisters, and zigzags.

The “persistent offender [is] devoid of connective structures at each phase of his life course, especially involving relationships that can provide informal social control and social support” (Sampson & Laub 2003, p. 194). Persistent offenders generally experience instability in their job, marriage, and residential situation, failure in school and the military, and incarceration. Discussing “desisters,” the authors introduce processes of desistance operating simultaneously at different levels (individual, situational, and community) and across different contextual environments (family, work, and military) (Sampson & Laub, 2003, p. 145). These processes of desistance seem to be very similar in a wide variety of crime types: new situations cut off the past from the present, provide supervision and opportunities for social support and change, structure routine activities, and generate opportunities for identity transformation. The third type, which Sampson and Laub call the “zigzag” criminal career, is mostly characterized by a late onset of violent behavior and limited official records. Sampson and Laub (1993) argue that weak or broken bonding of an individual to society increases the likelihood of crime and deviance; they focus on the mediating role of informal family and school bonds in the explanation of childhood and adolescent delinquency. Social bonds in adulthood (especially attachment to the labor force and cohesive marriage) also influence criminal behavior, though the authors neglect prior differences in criminal propensities. They include the dynamic concept of “turning points” as a way of explaining modifications in life trajectories.

Situational action theory integrates individual propensity and exposure to the situational context, along with their interaction. It also includes changes over time. SAT combines the person-oriented and the environment-oriented approach to identify important explanatory factors and to explain crime as action. According to Wikström, Oberwittler, Treiber, and Hardie (2012, p. vii), SAT “aims to integrate individual and environmental perspectives on crime causation by proposing that acts of crime (which are defined as moral rules stated in law) are the result of a perception-choice process guided by the interaction between a person’s propensity to commit crime and their exposure to criminogenic settings.” Depending on experience, habits or deliberations control the decisions that lead to delinquent behavior. Wikström (2009) suggests that two processes are important in explaining why people engage in acts of crime: a person has to perceive criminal acts as an “action alternative” in a concrete situational setting,

and then choose to implement that alternative. These two processes leading to the realization of an act depend on the person's crime propensity and its interplay with exposure to criminogenic settings. Wikström defines crime propensity as an individual factor that is grounded in the individual's action-relevant moral values and emotions and his/her capacity to exercise self-control. Exposure refers to the action-relevant moral rules of a setting and the level of their enforcement. The Peterborough Adolescent and Young Adult Development Study (PADS+) examines this theory empirically (Wikström et al., 2012).

The age-graded theory of informal social control, with its life course perspective, is able to explain turning points and changes in criminal behavior, but it lacks an action perspective because the individual's capacity to act is not considered. As a possible complement to action-based hypotheses, Sampson and Laub suggest integrating the assumptions of SAT (Sampson & Laub, 2003, p. 193).

1.2 Psychological-criminological longitudinal research

From the psychological perspective, the cohort-sequential design is the research design best suited to an investigation of the development of deviant and delinquent behavior, and of development in general. Such a design makes it possible to observe real changes among a cohort over the analysis period.

In the international context, there are few outstanding psychological longitudinal studies. They aim primarily to examine individual risk factors for typical delinquent developmental paths. Important projects are the Cambridge Study in Delinquent Development (Farrington, 2003), the Dunedin Multidisciplinary Study (Moffitt et al., 2001), the Pittsburgh Youth Study (Loeber, Farrington & Strouthamer-Loeber, 2003), the Montréal Longitudinal Study (Tremblay, 2000), the Oregon Youth Study (Patterson, DeBaryshe & Ramsey, 1989), the Edinburgh Study of Youth Transitions and Crime (Smith & McVie, 2003), and the Environmental Risk Longitudinal Twin Study (E-Risk; Moffitt & The E-Risk-Team, 2002).

Few longitudinal studies explore the topic considered by project A2 in the German-speaking area. Four of these are of note: the Marburger Kinderdelinquenzstudie (Remschmidt & Walter, 2009), the Mannheimer Risikokinderstudie (Lay et al., 2001), the Zürcher Interventions- und Präventionsprojekt an Schulen (ZIPPS; Eisner et al., 2008) and the Erlangen-Nuremberg Development and Prevention Study (ENDPS; Lösel et al., 2005; Lösel et al., 2009; Lösel & Stemmler, 2012).

Despite these four studies, there is evidently still a need for research in the field of deviant and delinquent behavior in the German-speaking area. No longitudinal study has observed several cohorts in parallel using a cohort-sequential design. Most of the sample sizes of the developmental studies have been small (under 500 persons). Moreover, the existing studies address only one geographical region (Magdeburg; Mannheim, Ludwigshafen, Rhine-Neckar region; Zurich; Erlangen, Nuremberg). No study has compared different regions in northern and southern Germany. The research gaps are not only methodological, but also substantive: None of the studies investigates deviant and delinquent behavior comprehensively in the criminological field (delinquency) with reference to norm-violating but legal behavior (deviance) and in respect of developmental precursors and correlates (hyperactivity, problem behavior). School, peers, and neighborhood are also factors rarely considered comprehensively beyond individual, family, or in some cases biological aspects. The focus has been mainly on psychological constructs, whereas sociological constructs have hardly been measured. The main emphasis of previous research lies not explicitly on the etiology of deviant and delinquent behavior, but on the development of men who acquired an official record as children (Renschmidt & Walter, 2009) and children confronted with biological and psychosocial stressors early in life (Lay et al., 2001), or on problematic social behavior (Eisner et al., 2008; Lösel et al., 2005). Two of these studies are also conceptualized as combined development and prevention studies, testing the efficacy of programs to prevent antisocial behavior (Eisner et al., 2008; Lösel et al., 2005).

From the psychological point of view, a very important concept is the biopsychosocial model of risk accumulation (Dodge & Pettit, 2003; Lösel et al., 2005; Lösel & Bender, 2003). This predicts dissocial life courses. The key assumption is that a dissocial life course is more likely for a person who is confronted with many risk factors than for a person who is confronted with few risk factors. The model corresponds with the early-starter model put forward by Patterson, DeBaryshe, and Ramsey (1989) or the life-course-persistent path proposed by Moffitt (1993).

In contrast to the sociological-criminological research, the psychological longitudinal research is more strongly oriented on empirical evidence and bottom-up research. It uses multifactorial approaches to identify risk factors for a delinquent life course. Psychology also more often examines deviant behavior (which is also described as dissocial behavior or antisocial behavior). It belongs to the field of psychopathological abnormalities and has not only a normative, but also a clinical dimension. However, a new approach called developmental crimi-

nology provides a basis shared by current criminological personality-oriented and sociologically oriented longitudinal research (see Boers, 2009). This new approach describes and explains the dynamics of non-conforming and delinquent courses, their continuity, and their change more suitably than did previous models. It draws attention to both the developing person and the developing sociostructural environment.

1.3 Advantages of combining sociological and psychological approaches

Project A2 combines the sociological and the psychological perspective in the same research field of deviance and delinquency. This is promising for several reasons. First, it enables us to bring together the more theoretically oriented approach of sociologists with the more empirically oriented approach of psychologists. In the sociological research, the testing of hypotheses derived from general theories such as the age-graded theory of informal social control (Sampson and Laub, 1993; 2003) or situational action theory (Wikström, 2006) is prominent. In psychological research on deviance and delinquency, it is more common to explore the factors that are good predictors of antisocial behavior and are causally linked with such a life course. The focus is on risk factors (factors that increase the likelihood of an antisocial development), promotive factors (factors that support a positive or conforming development), and protective factors (factors that increase the likelihood of a positive adaptive and conforming development in a context of risk factors). One general aim is to identify factors that can be modified by prevention or other interventions, in a similar way to, for example, the biopsychosocial model of risk accumulation (Dodge & Pettit, 2003; Lösel et al., 2005; Lösel & Bender, 2003).

Moreover, project A2's researchers are able to combine sociological concepts tailored to the macro level of the community (e.g., socioeconomic status or poverty) and the environment with psychological constructs concerning individual and psychological processes on the micro level (e.g., hyperactivity, empathy, physical aggression, parental involvement, and parenting practices). This makes it possible to conduct a study with an equal weight on environmental and individual factors and on the macro and micro level (a balance grounded in the disciplines specializing in such measurements and constructs).

In addition, project A2 can benefit from the experience, measurements, and scales of the previous longitudinal studies CRIMOC and ENDPS, and can compare the data of these two studies with the data from the new project.

Finally, this project enables the researchers to integrate two somewhat different understandings of the research field. In psychology, the relevant research concentrates on antisocial behavior and its etiology. Psychologists look at the research field from a more developmental perspective and explore the individual and social factors supporting and affecting the development of clinical problems such as conduct disorder or antisocial personality disorder. In the sociological tradition, in contrast, the focus lies more on criminality in the sense of acts concerning the criminal law.

It is mainly because of these aspects—the integration of bottom-up and top-down approaches, of constructs at the macro and micro level, of individual and environmental factors in the proximate and distal social context, of experiences in two field studies, and of two conceptually divergent understandings of the topic—that the cooperation of sociology and psychology is expected to be a step forward in studying deviant and delinquent behavior.

1.4 Summary and prospects

There is a large body of longitudinal research in the field of criminology. However, it refers mostly to the English-speaking area. In contrast, very few studies exist in Germany or German-speaking areas investigating the development of behavior with regard to deviance and delinquency over a longer time span and with data from self-reports, going beyond registered data. For conceptual reasons (or due to sample size), no study has analyzed persons from childhood to the fourth decade of life. Researchers have not taken into account the direct and indirect relationships between personality traits and sociostructural variables, and neither have they researched different courses of deviance and delinquency.

The design of project A2 enables the study of direct and indirect effects of control interventions and their bidirectional relationships with reported delinquency, social structure variables, and personality traits. It will also be possible to analyze the stabilization of social inequalities over the life course. The insights contributed by developmental psychopathology and by criminological sociology are complementary.

1.5 Project A2's relationship to the main topic of SFB 882

The title of the SFB is “From Heterogeneities to Inequalities” (SFB 882, 2010). SFB 882 distinguishes between heterogeneities and processes into inequalities. As Diewald and Faist (2011) explain, heterogeneities are conceptualized as the starting point and inequalities as the end point. Heterogeneities refer to differences more generally, while inequalities consist of

inequalities of resources, appreciation, and chances of participation on the one hand, and their perception and assessment on the other. Social mechanisms are the mediating variables in the development from starting point to end point.

In their synopsis, Diewald and Faist (2011) suggest four main abstract mechanisms, referring to Tilly (1998) and Therborn (2006): social closure in terms of inclusion/exclusion (i.e., access to networks, organizations, and societies) and hoarding of opportunities (i.e., the interaction within a social field where someone is included or excluded), social hierarchization (i.e., processes linked with the existence of powerful positions in formal organizations with different rights, duties, and resources, and with informal role systems and cultural hierarchies), and exploitation/asymmetrical dependence (i.e., processes associated with cooperative relationships, if the more powerful party is able to obtain a disproportionate amount of the valued objects that were generated by the cooperation in question). The perception and assessment of heterogeneities proceeds before these processes occur, forming the background to the four main mechanisms, and can vary depending on the social context. Diewald and Faist's heuristic synopsis distinguishes between three context levels: family and networks, organizations, and social institutions. Depending on the context level, the regularities in the development of inequalities, and the dimensions of inequalities focused upon, are different. Furthermore, the interdependency of different context levels can result in mechanisms furthering the development of inequalities.

The concept of cumulative disadvantages is central to the study of the life course, as the mechanisms of the development of inequalities influence each other in different contexts. Diewald and Faist (2011) propose the following relationships: unequal treatment in different contexts because of the same heterogeneity, in different periods of life and institutionally connected contexts, an accentuation of the differences of a central feature as a result of the interaction with context experiences over time, and a path dependence. They suggest the following types of interdependency between different mechanisms: competition (i.e., a reduction of effort in one action field because of a necessary or desired, but too intense, effort in another action field), conflict (because of mutually exclusive requirements in different action fields), substitution (i.e., the compensation of inadequate action opportunities in one field by means of intensified effort in another), and generalization (i.e., the mutual reinforcement or support of the processes of development of inequalities in several action fields). The concrete effect of these interdependencies is mediated by social conditions and their development.

Project A2 is interested in the development of deviant and delinquent behavior over the life course in the context of processes of social inequalities. Deviant and delinquent behavior is regarded as both a starting point and an end point of the development of social inequalities. Social inequalities result in dissociality and delinquency, which in turn stabilize and intensify social inequalities; this is, therefore, conceived of as a reciprocal relationship.

Deviant and delinquent behavior is the end point of processes of social inequalities and interacts with them. Several different inequalities in different contexts are associated with a delinquent and deviant life course. In developmental psychopathology, for example, the parents' socioeconomic status or dissocial lifestyle is known to be a risk factor for the development of dissocial behavior (e.g., Lösel & Bender, 2003). Consequently, deviant and delinquent behavior can be interpreted as a correlate of other inequalities. Moffitt's work (1993) illustrates this: in terms of adolescence-limited antisocial behavior, delinquency in adolescence is the consequence of the "maturity gap" between physical maturity and social status with its social opportunities for participation. The biopsychosocial model (Dodge & Pettit, 2003; Lösel et al., 2005; Lösel & Bender, 2003), too, supports this: here, the accumulation of risk factors is important for the development of a persistent dissocial life style. When a delinquent and deviant life course develops, several variables influence that development, reflecting either heterogeneities (such as migration status) or inequalities (such as discrimination because of being a migrant). How social inequalities that have emerged somewhere else or that already exist result in further social inequalities is one of the SFB's themes (SFB 882, 2010, p. 5).

However, deviant and delinquent behavior per se is a feature of heterogeneity that differs between persons and has a long-term effect on opportunities to participate in several contexts of life. In terms of the labeling approach (e.g., Becker, 1963), the question arises of how a delinquent and deviant life course is stabilized through interaction with external influences and attribution processes, and then results in social inequalities. Empirical evidence verifies that many delinquent adults were dissocial in their childhood (e.g., Moffitt, 1993). Such mal-adjusted behavior in childhood limits opportunities to develop prosocially and encourages the alignment of the life course with a dissocial one. Yet not every child remains dissocial until adulthood (e.g., Patterson et al., 1998). The focus must therefore be not only on the question of which mechanisms stabilize a deviant and delinquent life course and its associated social inequalities, but also which mechanisms foster turning points and desistance.

Particularly relevant mechanisms of the development of inequalities as set out in Diewald and Faist's (2011) heuristic synopsis are those of exclusion and inclusion. A dissocial personality structure, understood as a feature of heterogeneity, impedes access to opportunities for social participation. This association may be influenced by ascriptive features, cultural differentiations, lifestyles, and the failure to develop competencies. The objective of project A2 is thus to examine mechanisms that impact upon the course of deviance and delinquency, for the same mechanisms can result in persistence of the deviant and delinquent behavior up to adulthood or, under certain conditions, in desistance from such a life course. Therefore, project A2 includes concepts from the research on deviance and delinquency to explain processes of inequalities.

Project A2 contributes to the conceptual reorientation called for by Diewald and Faist (2011) not only theoretically as a field for observation of the development of inequalities, their stabilization, and their change, but also methodologically, through a design that covers several decades. It is designed dynamically in terms of life course research. The empirical and theoretical insights of the research on deviance and delinquency can be directly integrated into the debates within life course research because of the project's broader embedding in the SFB. This approach permits the observation and analysis of changes in individual attitudes and individual behavior as well as changes in the social contexts and their control structures.

In general, project A2 was designed to fulfill the basic conceptions of the SFB: it is an interdisciplinary study with a life course approach, and its research field is a topic of relevance to society and the individual and includes several contexts and periods of life. Bearing those features in mind, project A2 meshes very well with the wider context of the SFB.

1.6 The integrative life course model of deviant behavior

The integrative life course model of deviant behavior specifies the general ideas of the SFB in the context of deviant and delinquent behavior and integrates the theoretical ideas of Sampson and Laub (1993; 2003) and Wikström (2006) as well as empirical and theoretical ideas from the CRIMOC and ENDPS studies (Boers & Reinecke, 2007; Lösel et al., 2005). It asks how sociostructural disadvantages (e.g., poverty), individual risk factors (e.g., difficult temperament), crime rate, social control, and sociostructural heterogeneities intertwine. The model considers the interdependency of the macro/meso and the micro level over the life course and differentiates between processes in childhood, adolescence, and early adulthood. Thus, it places the development of childhood sociostructural disadvantages into criminality in adoles-

cence and sociostructural heterogeneities in early adulthood within the broader context of individual development (for an overview, see Figure 1).

Starting points on the micro level of individual development are individual risk factors. In childhood, these result in, for example, deficits in social and educational development, which in adolescence foster the learning of criminal behavior. This, in turn, makes formal schooling and education more difficult in early adulthood.

The two levels are interconnected in all of the three life periods. Sociostructural disadvantages influence individual risk factors in childhood. In adolescence, delinquent peer bonding fosters the learning of criminal behavior. This becomes apparent in the crime rate, depending on the extent of social control. Two developmental pathways result: one with a development of criminal behavior and one with a “spontaneous desistance” (*Sontanbewährung*). In early adulthood, social control and deficits in formal schooling and education interact to influence the subsequent developmental course: on the macro/meso level, they result either in persistence or in positive turning points, reflecting the desistance from deviant developmental courses on the micro level.

This multilevel model enables researchers to compare groups, examine intraindividual developmental courses, and include observed and unobserved heterogeneities at the same time (see Reinecke, 2006). Observed heterogeneities refer to heterogeneities that become apparent through variables like sex or migration status, whereas a persistent development of deviant and delinquent behavior reflects unobserved heterogeneities. In this model, the main mechanisms and interdependencies suggested by Diewald and Faist (2011) can be substantiated for the field of deviant and delinquent behavior. An example of the first mechanism (exclusion/inclusion) is that an antisocial child with a difficult temperament, growing up in a neighborhood with a high crime rate, tends to be aggressive and to join delinquent peers in adolescence. This person has an increased chance of learning criminal skills, but a decreased chance of learning prosocial skills, attending a higher-track school, and moving away from the neighborhood (hoarding of opportunities). The prospect of changing his or her own low socioeconomic status is unfavorable, but the risk of coming into conflict with law and being sent to prison increases (hierarchization). Finally, it is likely that a person who has been in prison will be more socially controlled by the police and will not find a stable, well-paid job after discharge because of his or her status as an ex-prisoner (exploitation). An example of the generalization of inequalities is exclusion by prosocial peers, which reduces the chances of learning and modifying the person’s own biased social information processing (generalization).

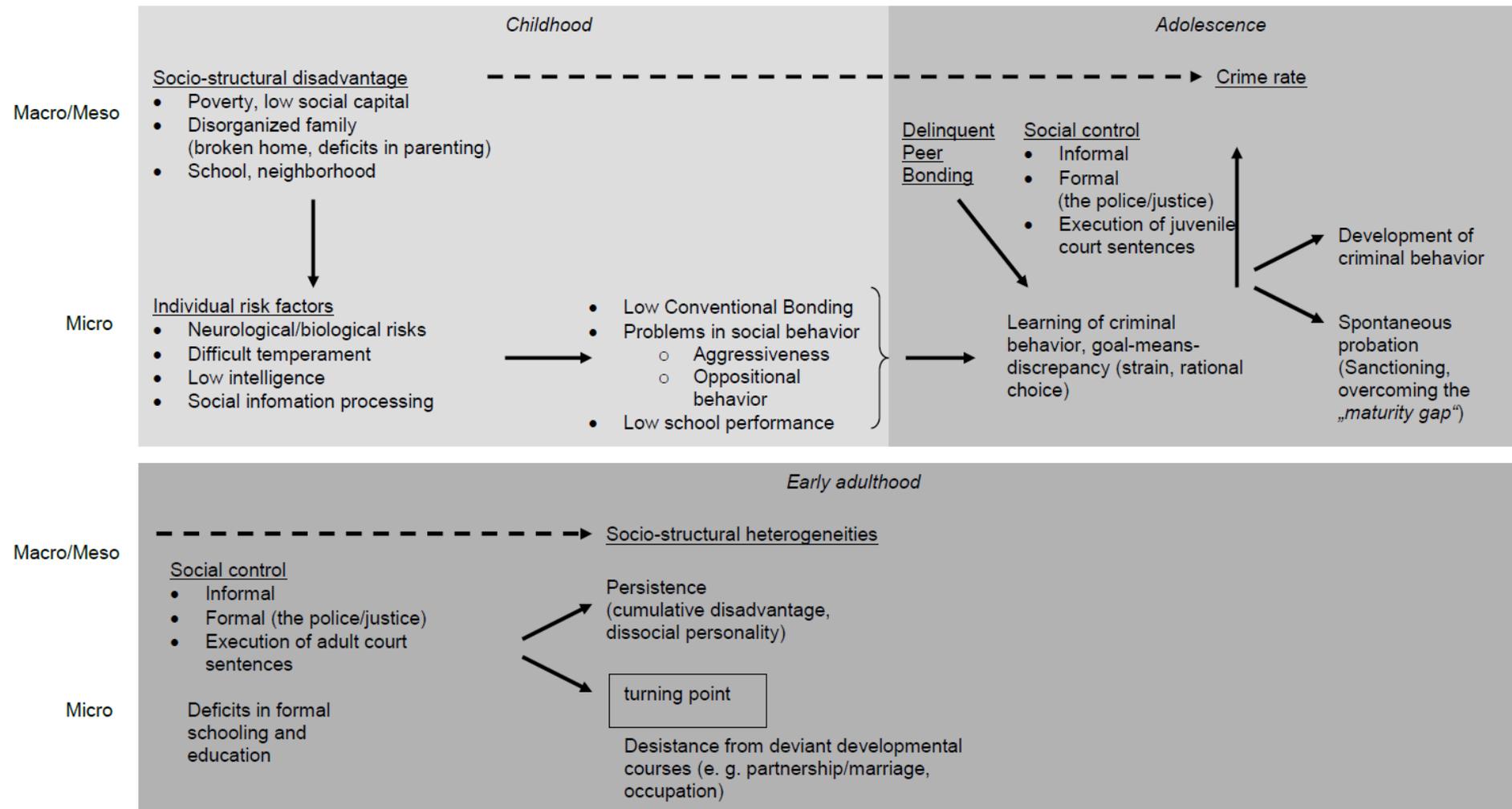


Figure 1. The integrative life course model of deviant behavior

If a person spends prolonged periods in unstructured leisure activities like hanging out or playing aggressive computer games, time to study for school and to meet prosocial peers is reduced (competition). Moreover, the requirement to listen carefully and concentrate, and thus to succeed, in school is very difficult to fulfill for persons with hyperactive, impulsive tendencies and concentration problems or low intelligence (conflict). Lastly, a person who is not accepted in society (or, especially, by his conforming peers) and has insufficient prosocial or conforming skills to change that situation will probably practice his antisocial or non-conforming skills to achieve an appreciated status in an antisocial milieu (substitution). In other words, the integrative life course model of deviant behavior illuminates the main mechanisms and interdependencies between characteristics of heterogeneities and social inequalities (Diewald & Faist, 2011).

2 Research questions

The central theoretical ideas of project A2 rest on the age-graded theory of informal social control (Sampson & Laub, 1993; 2003) and situational action theory (Wikström, 2006). Beyond that, the background of project A2 adopts the theoretical and empirical insights of the CRIMOC and ENDPS studies (Boers & Reinecke, 2007; Lösel et al., 2005). A cohort-sequential design (Baltes, Reese & Nesselroade, 1988) with measurements in childhood, adolescence, and early adulthood was chosen. Project A2 aims to answer the following questions:

- Do children who suffer from sociostructural disadvantages have increased individual risk factors for deviant behavior?
- Do forms of maladjusted social behavior in childhood intensify deficits of social and cognitive skills in adolescence?
- How relevant are distal and proximal risk factors for the increase of deviant and delinquent behavior in adolescence?
- What factors influence desistance from deviant and delinquent behavior up to the beginning of early adulthood? Do informal and formal interventions of social control intensify these factors?
- How do sanctions negatively affect educational and occupational courses, intensifying processes of exclusion and stigmatization and resulting in cumulative disadvantages (Sampson & Laub, 2003) over the life course?
- What are the conditions for persistence in a delinquent course up to early adulthood?

- What factors result in later desistance and take on the function of biographical turning points?

3 Method

3.1 Study design and implementation

The chosen study design is a cohort sequential design, so far including two cohorts, which consist of students from the fifth and ninth grade (cohort 2 and 3). In 2013/14, another cohort will be included, consisting of students from the third grade (cohort 1). The study design thus covers an age span from eight to 18 years in the first four years of the SFB.

The study focuses more on students from lower-track schools than on students from medium- and university-track schools. This results in an oversampling of students from lower-track schools.

In the first period of the project, the data collections are carried out yearly. This takes account of the dynamics of the development of deviant and delinquent behaviors in childhood and adolescence. The first wave took place from February to July, 2012. The sample consisted of students from the fifth and ninth grade of comprehensive schools, medium-track schools and university-track schools in Dortmund, and of lower-track schools in Nuremberg.

The initial plan was to include a cohort of students from the first grade of elementary school from 2011/12 onwards. However, the project team abandoned this idea for two reasons. Firstly, personnel resources were not sufficient. The initial research proposal for integrating project A2 into the SFB intended to use an additional staff member, which was not approved. Secondly, a panel of experts consisting of Friedrich Lösel and Klaus Boers recommended not including this third cohort (cohort 1) before the third grade. On the one hand, they considered the personnel resources insufficient to deal with three cohorts, at least during the first wave. On the other, a personal interview with children younger than nine is very costly, while a written one overtaxes children of this age cognitively and motivationally. The alternative plan was to interview their parents and teachers instead. We rejected this idea because changing the measurement levels (parent/teacher report to self-report) between childhood and adolescence would have weakened the comparability of the data for cohort 1 with those of cohort 2 and 3.

Another modification of the original design affected the settings of implementation. The chosen settings are Dortmund in northwestern Germany, as initially planned, but also Nuremberg in the south. The formal reason for including Nuremberg was Mark Stemmler's ap-

pointment to a post at the University of Erlangen-Nuremberg in March 2011. The involvement of Mark Stemmler is necessary because of his expertise in developmental psychopathological theory and research on the development of deviant and delinquent behavior. With regard to content, the inclusion of a city in Bavaria, southern Germany, extends the options for investigating the processes of social inequality in general and the development of deviant and delinquent behavior in particular, by allowing a comparison between different regions. Despite sociostructural similarities, the two settings differ with regard to key issues that are relevant for development (e.g., school system, family policy).

In spite of the exclusion of cohort 1, the sample collected is much larger overall than was envisioned in the SFB proposal. The study design for the first SFB period is set out in Figure 2. For the other two SFB periods (2015–2023), the measurements are planned at two-year intervals, unlike the first period with its annual measurements.

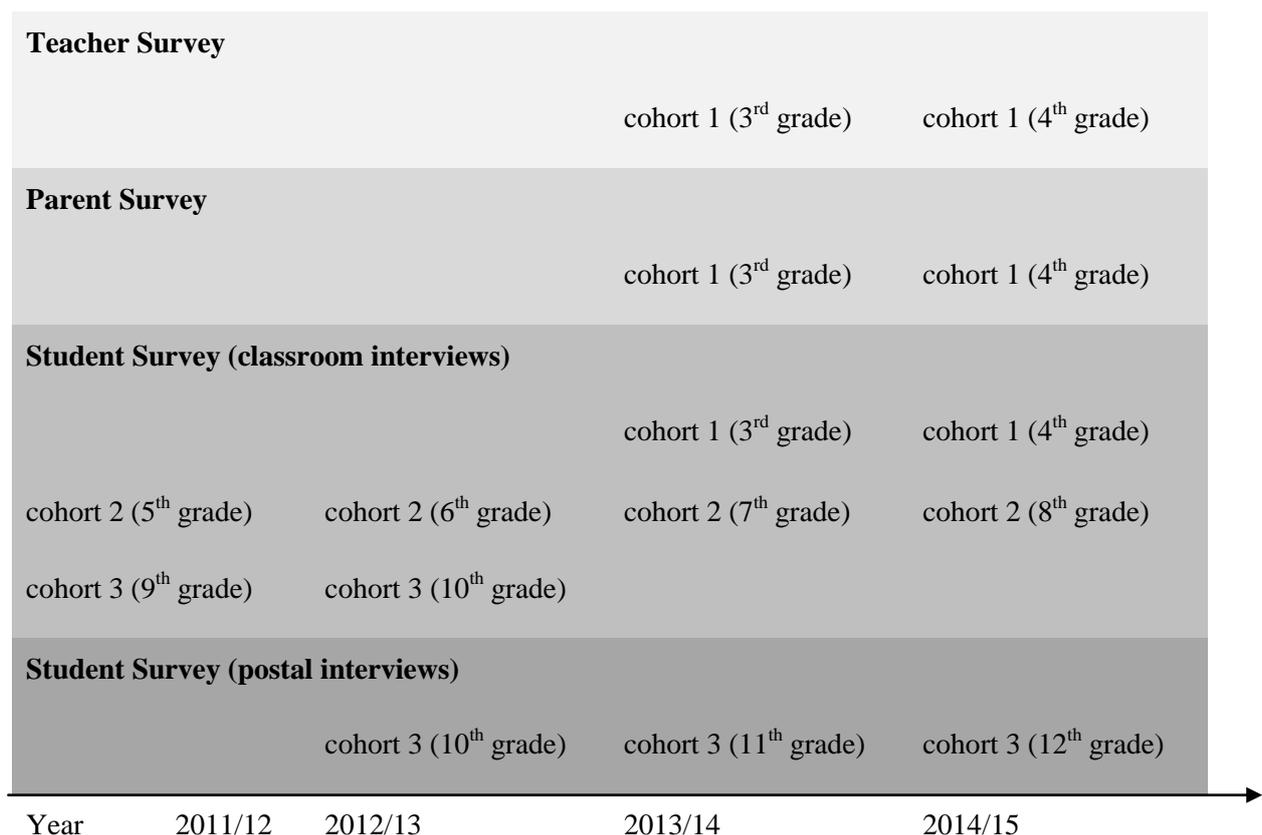


Figure 2. Study design for the first SFB period (2011–2015)

The measurements of the first wave were carried out anonymously in the form of individual paper-pencil questionnaires in the classroom. In Dortmund, an external survey institute collected the data, while in Nuremberg data was collected by members of the University of Er-

langen-Nuremberg. Part of cohort 3 will receive monetary incentives during wave two in 2013, because in Nuremberg this cohort will have finished school after the ninth grade.

From 2014 on, cohort 3 will be investigated entirely postally. This will be carried out internally, in other words exclusively by members of the project team. However, cohort 2 will be contacted at their school and interviewed in school over the complete first SFB period.

In contrast to the initial plan, the study will not include a childhood cohort before 2014. The investigation of the students from elementary school will then start in third grade, with a survey completed through interviews with their parents and teachers. In Dortmund, a survey institute will collect the data from the elementary-school students; in Nuremberg, the project team will collect the data. Both in Dortmund and Nuremberg, we plan to interview the parents personally and to collect biological data from the *Mutterpass* (a health document for mothers and their children) and the booklet documenting the results of medical examinations by a pediatrician. Monetary incentives for each family will be provided. The teacher survey will request a rating for each elementary-school student who is included in the sample.

Context data about school and living environments (official statistics) complement these data from self-reports (and parent and teacher reports for cohort 1). We also plan to include information from educational records and records from the public prosecution database MESTA, in compliance with the regulations of data protection. In terms of triangulation, the data analysis therefore draws on various sources of information.

3.2 Description of the sample

The total sample consists of two subsamples, one from Dortmund and one from Nuremberg. The Nuremberg sample comprises only students from the lower-track schools. Altogether, the Nuremberg sample consists of 529 questionnaires from students from the fifth grade and 494 from students from the ninth grade (with a filled-out parental consent form). The Dortmund sample is composed of 807 students from the fifth grade and 927 students from the ninth grade. In Nuremberg, 17 schools permitted us to survey their students from the fifth grade, and 19 schools to survey their students from the ninth grade. In the Dortmund sample, there are 18 schools with students from the fifth grade and 15 schools with students from the ninth grade. Table 1 shows the statistical data on the sample collected in spring 2012.

Table 1. *Numbers of participants, classes, and schools in the first wave 2012 for Dortmund and Nuremberg*

	cohort 2 (5th grade)	cohort 3 (9th grade)	cohorts 2 and 3 (5th + 9th grade)
Dortmund			
Participants	807	927	1,734
Classes	55	44	105
Schools	18	15	18
Nuremberg			
Participants	529	494	1,023
Classes	43	57	100
Schools	17	19	19

Note: The sample from Dortmund includes students from all school forms, whereas the sample from Nuremberg only includes students from lower-track schools.

3.3 Instruments

The measurement instruments consist of a paper-pencil self-report questionnaire in two variants, one for the fifth-grade students and one for the ninth-grade students. The two versions differ in some wordings, and some questions are omitted in the fifth-grade questionnaire for reasons of age appropriateness, linguistic complexity, and the need to reduce the questionnaire's length. The questionnaires for Dortmund and Nuremberg are almost identical, differing only in some question wordings that refer to local aspects.

The selection of the scales is based on the age-graded theory of informal social control (Sampson & Laub, 1993; 2003) and situational action theory (Wikström, 2006) as well as on scales and measurements from the CRIMOC and ENDPS studies (Boers & Reinecke, 2007; Lösel et al., 2005). The following aspects are measured: friendships, leisure, school, neighborhood, family, personality, and deviant and delinquent behavior. The questionnaire for the fifth-grade students contains 61 question sections and that for the ninth-grade students 70 question sections. The question sections consist of one to 24 items. The questionnaires are designed to limit the duration of data collection to approximately one hour.

Most of the questions refer to well-known and established scales, but some are modified or newly invented. Examples of the sociological scales used are the following: scales consisting of items to measure the SAT constructs “self-control,” “morality,” “shame/guilt,” “temptation,” “school efficacy,” “collective efficacy,” and “peer delinquency,” all these translated and modified from the PADS+ study (PADS+, 2008; Wikström, 2009). In addition, the questionnaire includes questions to measure the constructs of “family and peer attachment” (see Armsden & Greenberg, 1987), “values” (see Boers & Reinecke, 2007), “incivilities” (Boers & Reinecke, 2007), and some items to explore the demographical background, such as sex, age, nationality, parental education, income, or inventory at home (see IEA, 2006; 2007).

Psychological scales considered are, among others, those of the Strengths and Difficulties Questionnaire (SDQ; Goodman, Meltzer & Bailey, 1998; Lösel et al., 2005), the Social Behavior Questionnaire (SBQ; Lösel, Beelmann & Stemmler, 2002; Tremblay et al., 1992), the Alabama Parenting Questionnaire (APQ; Essau, Sasagawa & Frick, 2006; Lösel et al., 2003), the Personality Questionnaire for Children between 9 and 14 (Persönlichkeitsfragebogen für Kinder zwischen 9 und 14 Jahren; PFK 9-14; Seitz & Rausche, 2004), and adapted from the Questionnaire for the Assessment of Empathy, Prosociality, Tendency Towards Aggression, and Aggressive Behavior (Fragebogen zur Erfassung von Empathie, Prosozialität, Aggressionsbereitschaft und Aggressivem Verhalten; FEPAA; Lukesch, 2006; Meindl, 1998).

Deviant and delinquent behavior is measured by the Delinquency Self-Report Scale (Delinquenzbelastungsskala; DBS; Lösel, 1975; Lösel, Bliesener & Averbek, 1999) and delinquency items from CRIMOC (Boers & Reinecke, 2007), as well as items adapted from other sources (e.g., for “sexual violence,” Baier & Pfeiffer, 2011, and “cyberbullying,” Patchin & Hinduja, 2006; Riebel, 2007; Willard, 2007). Items to assess friendships, leisure, and school are also based on those from ENDPS (Lösel et al., 2005) and CRIMOC (Boers & Reinecke, 2007).

3.4 Initial results: Self-reported delinquency and deviance in Dortmund and Nuremberg

With regard to the data collection in spring 2012, the key concepts of delinquency and deviance can be illustrated by analyzing selected offenses from the self-reports. For the interpretation of the results, it is important to keep in mind that the Nuremberg sample consists only of students from lower-track schools, whereas the Dortmund sample represents a broader range of school types. Starting with deviance, it becomes obvious that deviance rates are quite con-

siderable in both cities and age groups. Getting drunk is one example: more than third of all the ninth-grade students reported having been drunk at least once within the past year (34 % in Dortmund, 42 % in Nuremberg). Skipping school for at least one day within the past year was reported by approximately 5 % of the fifth-grade students in Dortmund (12 % in Nuremberg). Figures increase for the students of the older cohort. The corresponding rates for the ninth-grade students rise to nearly 30 % in Dortmund and about 40 % in Nuremberg.

The lifetime prevalence rates of selected offenses presented in Table 2 give a first impression of the amount of delinquency reported in the first wave of the project.

Table 2. *Lifetime prevalence rates of selected offenses*

	Dortmund	Dortmund	Nuremberg	Nuremberg
	5th grade	9th grade	5th grade	9th grade
graffiti	4.0	12.6	8.1	10.6
defacing windows, bus stops, etc.	6.7	13.2	13.3	15.7
burglary	4.4	18.5	5.8	17.3
shoplifting	2.5	18.1	8.3	25.9
bicycle theft	2.0	7.9	3.7	16.8
aggravated assault without weapon	---	16.8	---	22.9
aggravated assault with weapon	---	2.8	---	6.1
drug use	---	16.2	---	19.4

weighted data for Dortmund (based on type of school)

As with deviance, an increase in delinquency can be observed when comparing the two age cohorts. Looking at vandalism and thefts, the onset in the younger age group becomes obvious. Between 2 and 7 % of the students from Dortmund reported offenses such as bicycle theft, graffiti, and shoplifting. The corresponding figures for Nuremberg tend to be a little higher, particularly for defacing windows (4–13 %). As in other studies, ninth-grade students report quite high rates not only for thefts and vandalism, but also for violence. Shoplifting is the most prevalent offense in this age group, with 18–26 % having committed an act of shoplifting at least once in their lifetime. The occurrence of aggravated assaults, burglary, and drug

use are in line with these findings. Choosing a younger cohort with students from the fifth grade allows us to observe the onset of delinquency. Further research will show whether delinquency peaks at the age of the older cohort or at a different point in the life course. At this stage, the ubiquity of different types of delinquency and deviance can already be clearly stated.

The results reported in Table 3 underpin the findings by indicating the prevalence rates in the 12 months preceding the data collection. Rather than comparing every single offense, aggregated rates for different fields of delinquency can be analyzed.

Table 3. *Aggregated prevalence rates (last 12 months)*

	Dortmund	Dortmund	Nuremberg	Nuremberg
	5th grade	9th grade	5th grade	9th grade
vandalism	7.7	17.0	14.2	16.8
property crime	7.9	26.1	16.2	30.8
violence	1.1	11.3	1.5	18.6
total	11.7	40.6	20.6	50.2

weighted data for Dortmund (based on type of school)

In Nuremberg one out of five fifth-grade students committed one or more offenses in the year leading up to the survey. In the older cohort this applies for half of the students. In general, the reported delinquency in Dortmund tends to be somewhat lower but shows the same age-crime development. In both cities, vandalism and thefts can be observed at an early stage of the life course. There are some indications that the peak for vandalism is reached earlier than for property crime. In contrast, acts of violence are not very prevalent in the younger cohort, but considerable rates are found for students from the ninth grade.

Further analyses have substantiated some well-known relationships between deviance and delinquency and other concepts from the project's framework. There are obvious differences between male and female students, with boys reporting higher rates. With the increase in age, the influence of delinquent peer groups becomes more important. Only a small proportion of all offenses are committed by single students. In the older age cohort a clear majority of all delinquent acts occur in groups, committed by more than one offender or in the presence of

other juveniles. Another aspect is the protective function of the students' families, along with the higher risk of students' being violent if they experience violence within the family context.

4 Conclusions

Project A2 is a promising study due to three aspects: the life span it covers, its complementary relationship with the SFB's projects A1 and A6, and its novelty in terms of structure, content, and methodological design. Some initial design aspects had to be adapted.

4.1 12-year perspective and the position of project A2 within SFB 882

In the first SFB period (2011–2015), project A2 aims to describe the educational and social development of all of the three cohorts. The second period (2015–2019) will enable the researchers to study the course of education, career choice, and entry into the occupational career of young adults. In the third period (2019–2023), the development of the occupational career and discontinuities in adulthood will be observable. In addition, the inclusion of three cohorts, in part observed over the same age periods, enables the researchers to generalize their observations beyond unique cohorts.

Among the heterogeneities that are relevant for the development of inequality are not only sociostructural or cultural differentiations, but also psychological differences. It therefore makes sense to include models from developmental psychology and developmental psychopathology in sociological research into the life course. As a result of this link, project A2 investigates the development of deviant and delinquent behavior in the context of the associated cumulative disadvantages.

Within the SFB, project A2 is closely connected with project A1, headed by Martin Diebold and Jürgen Schupp (SFB 882, 2010). The two projects complement one another, addressing the development of social inequalities over the life course and in individual development. Whereas project A2 focuses on the development of deviance and delinquency, project A1 concentrates on normal biographical processes of accepting social benefits. Both illuminate the development of social inequalities from opposite but complementary perspectives, and are linked by their time perspective and research field.

There are also intersections with project A6, headed by Stefan Liebig (SFB 882, 2010). This project looks at, among other things, attitudes to justice and their development. Attitudes

to justice are important in the social reactions to deviant and delinquent behavior, such as stigmatization or sanctioning. In addition, attitudes to justice are a personal factor that is involved in the actual genesis and ontogeny of deviant and delinquent behavior (see Wikström, 2006), so that the modification of such attitudes also impacts on the desistance from or persistence of a deviant and delinquent life course. Methodological similarities between project A2 and A6 are the consideration of several social contexts, the longitudinal design, and a research focus on subjective aspects. Project A6 matches well with project A2 in terms of methodological issues and substantive content.

4.2 Delineation of content: Differences between project A2 and CRIMOC and ENDPS

In contrast to the CRIMOC project (Boers & Reinecke, 2007), SFB 882's project A2 studies not only delinquent behavior, but also deviant behavior, which is closely linked with developmental psychopathology. In addition, younger cohorts are included. Whereas CRIMOC collects data from self-reports and official statistics from age of 14 years, project A2 observes an age span from eight to 18 years even in the first period. The three SFB periods enable the researchers to observe development from the age of eight to 27 and to track the different life periods of several cohorts. The comparable age periods are: cohort 1 and 2 are comparable for an age between 10 and 20, cohort 2 and 3 for an age between 15 and 22, cohort 1 and 3 for an age between 15 and 20. Furthermore, project A2 plans to survey parents and teachers for cohort 1.

There are also methodological and theoretical differences between project A2 and the Erlangen-Nuremberg Development and Prevention Study (ENDPS; Lösel et al., 2005; Stemmler et al., 2007). Instead of three cohorts, ENDPS follows only one cohort. The sample of ENDPS has a higher socioeconomic status overall; project A2 focuses more on a stratified sample with lower socioeconomic status. Whereas project A2 researches primarily deviant and delinquent behavior and its development, ENDPS collects data regarding a range of different social behaviors. In addition, ENDPS actually consists of two studies: a developmental study and a prevention study. The developmental study observes the development of deviance and delinquency, similarly to project A2, but ENDPS stresses the prevention study.

In summary, project A2 uses the findings of two well-known studies from sociology and psychology, but differs from them in central aspects.

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