

Book of Abstracts

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*Author: Anja Achtziger, Marco Steinhauser, Sabine Hügelschäfer,
Carlos Alós-Ferrer*

**Title: Bayesian Updating and Reinforcement Learning: Investigating
Rational Decision Making by Means of Error Rates and the F-ERN**

We tested whether rational decision makers process feedback on their decision outcomes differently compared to participants who rely on a simple reinforcement heuristic. In an adaptation of a study by Charness and Levin (2005), participants were required to draw a ball from one of two urns containing 6 balls each presented on a computer screen; simultaneously, participants' EEG was recorded. The colors of the balls could be green or blue. Participants were asked to choose which urn they wanted a ball to be extracted from (with replacement), and paid if the ball was of a pre-specified color (say, blue). The composition of the urns varied depending on a state of the world that was determined with commonly known probability of .5 per possible state. Participants faced two draw decision tasks 60 times and were told that the state of the world would be constant across the two draws. The first 30 periods' first draws were forced, alternating left and right, and the last 30 periods first draw decisions were free. Second draws from the urns were always free. Thus, the first draw was uninformed, but the second one should be based on the probability updated from the prior after observing the color of the first ball if participants were rational decision makers. Error rates and feedback error related negativity (F-ERN) in the EEG indicated different strategies in dealing with new information. Participants whose F-ERN was stronger on the outcome of their first draw compared to participants with a weaker F-ERN seemed to rely more on a simple reinforcement heuristic than on the Bayes rule when making their decisions. Moreover, individual differences in Faith in Intuition, Need for Cognition, and skills in statistics also correlated with participants' error rates and the modulation of the F-ERN.

Author: Ute Bayer, Anja Achtziger

Title: Self Regulation and Academic Performance

In a cross sectional study Tangney, Baumeister, and Boone (2004) observed that self-control is positively correlated with grade point average. In a longitudinal study Duckworth and Seligman (2005) found that self-control measured in the fall predicted final grades in the following spring in 140 eight-grade students. In a replication of the study with 164 eight graders, these authors added a group-administered IQ test. Now they observed that self-control measured in the fall accounted for more than twice as much variance as IQ in the final grades. This effect of self-control on final grades even held when controlling for and IQ. These findings suggest that students who show low level of self control fail in respect to capitalize on their intellectual potential. In the present study, we tested whether self-control has also such a strong effect on academic performance in Germany. We run a longitudinal study with students at the age of eight to twelve in primary and secondary school that lasts from winter 2008 until summer 2009. We measured children's self- control skills by means of a self-report measure (SCS-Scale; Tangney, et al. 2004) and added a short IQ-test (Zahlenfolgentest aus CFT-20-R; Weiß, 2007). We also asked parents and teachers to assess students' self-control skills. We measured further variables that were assumed to have an impact on the strength of students' self-control and academic performance (e.g., the importance of self-control as an education goal, the self-control skills of the parents and so on).

Author: Reinhard Drobetz, Simon Forstmeier, Andreas Maercker

Title: Delay of Gratification test for Adults (DoG-A): Novel Behavioral Measure of Self-regulation

Delay of Gratification (DoG) refers to a dilemma that regularly confronts individuals: The request of choosing between one immediate pleasure and a greater pleasure that usually demands willingness to invest time and/or work (e.g. saving or investing money versus spending it in shopping). Thus, DoG is the voluntary postponement of immediate gratification for the sake of later, better rewards. On the one hand, DoG is a measure of self-regulation and self-control. On the other hand, this construct is highly associated with impulsivity and assumed to be a relatively stable personality trait across the lifespan. DoG in childhood is a predictor for social, cognitive and emotional functioning in adolescence and adulthood. From an economical perspective, DoG is discussed in the context of socio-economic status and impulse buying. Whereas DoG is sufficiently explored in children, no adequate measure of DoG in adults has been published up to now. Further, the assessment of DoG by self-report questionnaires could lead to biased results due to the problematic of social desirability. Forstmeier and Maercker (2008) developed the Delay of Gratification test for Adults (DoG-A) – a novel behavioral and experimental measure of motivational self-regulation. Concretely, the DoG-measurement is embedded in a game that demands decisions between diverse immediate versus delayed rewards (e.g. food items or money). Afterwards participants answer questions concerning the game to control for possible influencing factors, e.g. which reward participants liked best. In a pilot study, the DoG-A-score significantly correlated with delay discounting (measure of self-control) and motivational regulation, supporting its content validity. In contrast, no correlations were found with cognitive abilities suggesting that this behavioral test only measures non-cognitive skills. Furthermore, the DoG-score also predicted emotional wellbeing in older age. First, the theoretical background of DoG and corresponding abilities like self-regulation and impulsivity will be described and integrated in a recently developed model of DoG from a lifespan perspective. Second, materials and procedures of the DoG-A will be presented. Third, first results of a present study that investigates DoG among other motivational abilities and motivational reserve in older age (individuals with Mild Cognitive Impairment, mild Alzheimer's disease and controls) will be presented.

Author: Amy Challen, Stephen Machin

Title: Evaluation of the UK Resilience Programme

There are increasing concerns about children's well-being¹ in the UK, their behaviour, and the low academic attainment of a large fraction of the population.² We have used a controlled trial to evaluate the UK Resilience Programme: a CBT-based programme used with 11-year-old children which aims to build resilience and promote realistic thinking. The curriculum on which UKRP is based has been evaluated a number of times, but in small samples and with a high degree of control from the curriculum developers.³ It is therefore hard to draw any conclusions about whether it would function well if used in schools more widely. With a sample of 6000 pupils we add significantly to the evidence on this intervention. Pupil well-being, resilience and behaviour are measured using validated psychological questionnaires, which we link into administrative data on demographic characteristics, educational background and attainment.

- The initial quantitative work found a significant positive impact on pupils' depression and anxiety symptom scores for those schools where the treatment and control groups were well matched.
- These effects varied by pupil characteristics, and were larger for girls, for pupils who had not attained the national target levels in Key Stage 2 exams (aged 11), and for pupils with worse initial scores for symptoms of depression or anxiety.
- There was considerable variation in effect size between schools.
- Effect size appears to be modest in comparison to prior PRP studies.

¹ There is no agreed definition of 'well-being', and the UNICEF report mentioned below includes dimensions such as material deprivation and educational attainment as well as subjective well-being, interpersonal relationships and health and safety. Here we focus on subjective well-being and psychological health.

² See, for example, the recent UNICEF report "An overview of child well-being in rich countries" which puts the UK at the bottom of a list of 21 advanced countries:

http://www.unicef-irc.org//presscentre/presskit/reportcard7/rc7_eng.pdf

³ For a research summary see Gillham, J.E., Brunwasser, S.M., & Freres, D.R. (2008). Preventing depression in early adolescence: The Penn Resiliency Program. In J.R.Z. Abela & B.L. Hankin (Eds.) *Handbook of Depression in children and adolescents*.(pp. 309-332). New York: Guilford Press.

*Author: Remi Piatek, Philipp Eisenhauer, Gabriella Conti, James Heckman
Hedibert Lopes*

**Title: Education and Health: Towards a better Understanding of
the Relationship**

The correlation between health and education is well documented. However, whether this correlation reflects causality and, if so, the direction of this effect is still highly debated. Are education and health determined by a common third factor like time preference? Does schooling affect health or vice versa? The literature on health economics offers theoretical explanations and empirical evidence on all of these patterns (Grossman, 2006; Grossman and Kaestner, 1997). We add to this debate by taking a comprehensive look using IV, structural and matching methods. Each of these methods can be used to address particular facets of this debate. We apply these methods to the 1970 British Cohort Study to analyze the effect of early-life cognition and personality on education and later-life health. These data are unusually rich in terms of both the quantity and the quality of measurements on early cognitive and personality traits. The IV methodology controls for unmeasured variables that are potentially correlated with health and schooling. Using this method, we estimate an overall net effect of education on health and health-related behaviors and test for evidence of heterogeneity in these returns. Interpreting cognitive and noncognitive skills as generators of underlying preference parameters more common in the economics literature like time preference Borghans, Duckworth, Heckman, and ter Weel (2008), we estimate a structural model that allows to investigate the relevance of cognitive and noncognitive skills as mediating factors for the effect of schooling on health. We provide methods for exploiting the extensive information available on these skills in the BCS in a systematic way which does not rely on arbitrary a priori decisions on model structure and sub-scale construction. We are able to compute distributions of treatment effects. Finally, we also estimate treatment effects using matching estimators.

Author: Haroon Chowdry, Claire Crawford, Alissa Goodman

Title: Drivers and Barriers to Educational Success

In this paper, we examine why young people from poor families are more likely to experience lower achievement in school, and more likely to participate in a range of risky behaviours as teenagers, than young people from richer families. Our work is based on new data from the Longitudinal Study of Young People in England (LSYPE), following a single cohort of around 15,000 teenagers born in 1989 and 1990, from age 14 to age 17. We examine a number of possible channels, or ‘transmission mechanisms’, through which parental socio-economic position may affect teenage education and behavioural outcomes. These are: schools and neighbourhoods, material resources, and the attitudes, skills and behaviours of the young person and their main parent. In particular, we consider the relationship between educational aspirations and expectations, self-concept and locus of control measured at age 14 and educational attainment and engagement in risky behaviours (including truancy, smoking and involvement in crime) at age 16. We are also able to examine the relationship between changes in these constructs between ages 14 and 16 and changes in educational attainment over the same period. We find that the young person’s own attitudes and behaviours seem to play a particularly important role in explaining differences in both education and behavioural outcomes between young people from different socio-economic backgrounds. For example, a young person who reports (at age 14) that they are likely to apply to university and likely to get in scores, on average, 18 points higher at age 16 (after controlling for performance at age 14), and is 3 percentage points less likely to play truant between age 15 and 16. By contrast, the role of schools and neighbourhoods is much smaller. There is currently relatively little evidence on the effectiveness of interventions designed to improve the attitudes and behaviours of teenagers. Our findings suggest that a clear direction for future research and policymaking is to further investigate the effectiveness of such policy initiatives, and to work towards establishing a more causal link between improving attitudes and behaviours and increasing educational attainment.

Author: Daniel Schunk, Martin Salm

Title: The Role of Childhood Health for the Intergenerational Transmission of Human Capital: Evidence from German Administrative Data

Our paper uses unique administrative German data to examine the role of childhood health for the intergenerational transmission of human capital. Specifically, we estimate the extent to which a comprehensive list of health conditions can account for developmental gaps in cognitive and non-cognitive skills between the children of college educated parents and those of less educated parents. In total, health conditions explain 18% to 29% of the gap in cognitive ability and 22% to 60% of the gap in our measure for non-cognitive ability. We conclude that family conditions are very important in overcoming the negative effects of health conditions on child development. Furthermore, policies aimed at reducing disparities in child achievement and socioeconomic inequalities later in life should also focus on improving the health of disadvantaged children. Our study contributes to the existing literature on child health and the development of cognitive and non-cognitive skills in several ways. First, our data on child health as well as cognitive and non-cognitive skills are based on detailed examinations administered by government pediatricians during elementary school entrance medical exams. The information obtained in these exams is far more reliable than that based on survey questions administered to children's parents, which is used in most previous studies. Second, the fact that these exams are compulsory for all children in Germany at the age of six years gives the data an extraordinary degree of representativeness. Third, we examine a much wider range of health conditions than those typically available in previous studies; this allows us to capture the inherently multi-dimensional nature of health in our estimations. Fourth, we use sibling fixed effects models to address omitted variables bias. Sibling fixed effects models allow controlling for unobserved family characteristics that might influence both child health and cognitive development. Finally, our study goes beyond estimating the effect of child health conditions on child development by also quantifying the extent to which the achievement gap between parental education groups can be attributed to child health.

Author: Andrea M. Mühlenweg

Title: Young and Innocent - International Evidence on Age Effects within Grades on School Victimization in Elementary School

School entry age effects on (short-term) cognitive outcomes are well-documented in the economic literature for many countries. These studies do not consider school entry age effects on the development of personality or social outcomes. However, the recent human capital literature emphasizes the multi-dimensionality of skills. Cognitive as well as non-cognitive skills are important determinants of labor market success. This is why the present study examines age effects on social outcome variables. Specifically, available international school assessment data allow observation whether younger children are more often victims of school violence in elementary school. Precisely, the question of interest in this study is whether children, as observed at one point in time, suffer from being the youngest within grade. Harm is done for example if the youngest children are more often bullied or are more often victims of any kind of school violence. Age effects are identified following the instrumental variables literature based on national school entry age rules. Possible selection into compliance with official rules is taken into account via a control function approach as a robustness check. Based on the PIRLS data for 17 countries, this paper demonstrates that younger children within grades (due to entering school younger according to official school entry age regulations) are harmed in terms of school victimization. The size of point estimates of the age effect is mostly higher for boys than for girls and for children with an immigrant background than for native children. Additionally, the study considers whether countries with a high age effect on cognitive outcomes are also countries with high age effects on social outcomes. Along this line, I find that the social effects of age within grade tend to be higher in countries where there are also high age effects on the observed cognitive test scores. Less favorable social outcomes seem to go hand in hand with less favorable test performance.

Author: Karsten Reuß, Katja Coneus

Title: Sensitive and Critical Periods of Cognitive and Noncognitive Skills

This paper investigates the critical and sensitive periods of cognitive and noncognitive skill development during childhood. We exploit a panel data from the Mannheim Study of Children at Risk, an epidemiological cohort study, which follows infants from birth until adulthood which is unique in covering a great variety of skills. For the development of cognitive skills parental investments have large impacts only during the first 8 years of life. In contrast, we find noncognitive skills to be more malleable during later childhood. Besides that, our results indicate that critical periods differ significantly between favoured and disadvantaged children. For example, children born with low birth weight tend to have their critical periods later, especially with respect to noncognitive skill development. Simultaneously, disadvantaged children benefit less from parental investments in early periods. Thus, initial inequality increases during the first eleven years in life. Finally, we find differences between economic and non-economic parental investments and gender.

Author: Dorothea Blomeyer, Manfred Laucht

Title: Novelty Seekers in Danger – Molecular Genetics, Temperament and the Use of Alcohol and Tobacco in Adolescence

Background: Several studies have provided evidence that temperamental traits, such as the habitual need for new and exciting stimulation (novelty seeking), are strongly associated with the risk for substance use disorders. One possible explanation refers to common genetic factors. The prevailing study aims 1) to examine the association between the Dopamine D4 receptor gene (DRD4) and the use of alcohol and tobacco in adolescents, and 2) to determine whether this association is explained by novelty seeking.

Methods: The sample in this study was taken from the Mannheim Study of Children at Risk (MARS), a prospective longitudinal study in a cohort of initially 384 children, followed from birth to young adulthood. At the age of 15 years, tobacco and alcohol use as well as temperamental traits were determined with standardized assessments (SUQ, LDH, JTIC). In 305 adolescents (146 m, 159 f), DNA was extracted from blood samples and genotyped regarding the DRD4 Exon III polymorphism.

Results / Conclusions: About 20% of the 15-year-olds consumed alcohol and cigarettes regularly. Substance use and novelty seeking were both significantly associated with the DRD4 genotype. Male adolescents carrying the DRD4 7r allele smoked more frequently, drank more excessively, and scored higher on novelty seeking than carriers of other variants. In both sexes, elevated levels of alcohol and tobacco use were associated with higher levels of novelty seeking. Multiple regression analyses revealed that novelty seeking mediated the association between DRD4 genotype and substance use in male adolescents. This result underlines the necessity of analyzing the link between genes and substance use sex specific (and eventually specific for developmental stages).

Author: Malte Sandner, Tanja Jungmann

Title: The Influence of Prenatal Non-cognitive Skills on Breastfeeding Attitudes in a Sample of Disadvantaged Primiparous Women

Breastfeeding is an important early maternal investment in the child's skill formation process as positive correlations to various child outcomes suggest. The influence on breastfeeding of socioeconomic factors such as age, income, education, marital status, occupation, and smoking is well documented. In contrast, the evidence about psychological traits influencing the breastfeeding decision and duration is weak. Moreover, research concentrates on the effect of the psychological state after birth, mainly postnatal depression. This contribution focuses on psychological factors assessed prenatally since many programs for socially disadvantaged women aim at fostering positive breastfeeding attitudes, already start during pregnancy. Data of 301 participants in the home visitation project Pro Kind is analyzed. All participants are primiparous women receiving ALG II or an equivalent low income and have at least one social or personal risk factor in addition. Two assessments during pregnancy and one at the child's age of three months are considered in the analyses. The participants report their self-efficacy, parental competencies, parental self-efficacy as well as depression, anxiety, and stress. Several socioeconomic characteristics are considered as covariates in the analyses. The estimates for any breastfeeding are run by logistic regression. Furthermore, we use an ordered logistic regression to estimate which factors are related to weaning after one month. Accordingly to logistic regressions some of the psychological (non-cognitive) skills influence the decision to breastfeeding. As expected, parental competencies are most strongly positive correlated to any breastfeeding, whereas general self-efficacy has a moderate negative impact. Other psychological factors are insignificant. The socioeconomic factors of "no contact with the child's biological father" and "under-aged" tend to lower the probability of any breastfeeding. The ordered logistic regression offers no additional insights concerning the influence of psychological factors. Moreover smoking strongly reduces the probability of breastfeeding for more than one month. Therefore home visiting programs for disadvantaged primiparous women with the objective of hindering low rates of breastfeeding should focus on women stating to possess low parental competencies. The lack of these psychological resources is more strongly related to breastfeeding rates and duration than e.g. prenatal depression symptoms. Taking these results into consideration can help to design more efficient support programs.

Author: Thomas Siedler, Bettina Sonnenberg

Title: Same Country, Different Worlds? The Influence of Childhood Experiences on Young People's Non-cognitive Skills

According to previous research, control beliefs are closely related to individuals' labor market outcomes. Thus, people with an internal control belief—that is, the belief that their social position is the result of their own performance and achievements—occupy better socioeconomic positions than people with external control beliefs, who understand success as a matter of luck or chance. Given that the two halves of Germany had very different employment systems prior to the fall of the Berlin Wall, and faced very different economic conditions thereafter due to the post-socialist transformation process, we analyze in detail as to what influences the different experiences of East and West Germans after reunification had on their control beliefs. Our study focuses on young people in Germany born after 1989. The focus on young people is, in our view, particularly valuable for three reasons. First, young people stand at the beginning of their labor market biographies, such that their control beliefs may exercise a substantial impact on their later labor market success. Second, due to young people's lack of labor market experience, our study is not affected by the reverse causality problem of control beliefs and previous work experience that has hampered many other studies. Third, based on our observations of young Germans born after the collapse of the Berlin Wall, we are able to examine how different cultural, economic and regional conditions and thus different childhood experiences in unified Germany affect young people's control beliefs. We use data from the youth questionnaire distributed to all 17-year-olds in survey households in the Socio-Economic Panel Study (SOEP). We link the data on young people's control beliefs with both the longitudinal information collected on their parents and detailed regional socio-economic information. Our results show that young men in East and West Germany do not differ in their control beliefs, while young women in East Germany show significantly stronger external control beliefs than their counterparts in West Germany. These control beliefs depend crucially on parental education: young people whose mothers possess a lower-than-average level of education show significantly stronger external control beliefs than those with better-educated mothers. Socio-economic experiences, such as experiences of parental unemployment, in contrast, have no effect on the young people's control beliefs. Furthermore, our results show that the economic and social context in the regions where the young people grew up has no influence on the strength of external control beliefs. The most important result of our study, however, is that the parents' control beliefs serve as an important predictor for the control beliefs of their children. While young men appear to orient themselves toward their fathers young women display a significant influence of maternal control beliefs. It thus appears that young people's control beliefs are not affected so much by the parental socio-economic situation or regional conditions as they are by the control beliefs of the parent of the same sex as themselves.

Author: Stefan Baron, Klaus Schömann

Title: Acquisition of Learning Self-Efficacy and its Importance for Lifelong Learning

The usefulness of human capital theory for explaining the low further training participation of less educated employees and their older colleagues is crucial dependent on the extent to which the theory is able to incorporate forms and consequences of motivation and uncertainty. This assumption builds on 'sociological rational choice theory', which combines the basic axiom of rational decision makers with the sociological idea that educational decisions are always embedded in social contexts, are confronted with uncertainty, and serve economic and social goals. Results from multilevel analyses with data from the interdisciplinary 'Demopass' project show that employees' appreciation for further training increases with their educational motivation, but decreases with higher perceived investment risk. The motive of intra-firm status maintenance has higher importance for younger employees, whereas older employees and those with lower education are more willing to participate in further training if they expect a higher likelihood for training success or in other words, a higher learning self-efficacy. In contrast, if people expect a low likelihood for training success, often perceived costs rise and further training becomes less likely - with consequences for employees' career opportunities and their productivity. However, learning self-efficacy can be strengthened. The 'Demopass' data set includes information from direct supervisors and the working group, both can give a frame of reference for training decisions, especially in 'certainty-difficulty-gaps'. They can give orientation and advice, and can help to overcome doubts. Employees may select a course of action by assimilating to group norms or by imitating his or her peers. The results clearly confirm these assumptions. Older employees and those with lower educational level show higher learning self-efficacy if they perceive management support and higher learning goal orientation within their working group.

Author: Verena Tobsch, Simon Fietze, Elke Holst

Title: Personality, Gender and Career in Management

In the discourse on leadership personality traits are often linked to careers, access to managerial positions and professional success. The so-called trait-theory has been harshly criticised by scientists, but still plays an important role in practice for those who select, promote, and evaluate executives (as can be seen in job advertisements) as well as for the executives themselves. Additionally, personality traits in general and especially those known to be leadership skills are often attributed to gender stereotypes.

In this paper we focus on women and men who already managed to overcome possible obstacles in order to reach a management position. By means of the German Socio-Economic Panel (SOEP) we investigate the impact of personality traits on (objective) professional success. Our first results confirm that executives differ significantly in their personality traits compared to those employees not in managerial positions – both for women and for men. But women in management seem to differ from female employees with lower professional status to a greater extent than their male counterparts do regarding both the five personality traits known as *Big Five* and the willingness to take risks for someone's own career. This could strengthen the assumption that the need to adjustment at (male-dominated) management level is much higher for women than for men. However, by taking other individual characteristics such as human capital investments, work environment, and life circumstances into account we have no statistical evidence for differences in the impact of personality traits on professional success between women and men. Different chances of women and men for their career advancement could rather be explained by years of work experience, extent of overtime work, and by labour market segregation. An appropriate design of general conditions and political incentives could contribute to equal opportunities in these areas for women and men. Regarding the importance of several determinants of professional success our results show that personality traits are less relevant compared to objective indicators such as duration of education or extent of overtime work. Nonetheless, personality traits might play a role more indirectly because some of these objective characteristics already reflect the level of certain personality traits.

Author: Emma Tominey

Title: The Timing of Parental Income on Child Outcomes: The Role of Permanent and Transitory Shocks

Does the timing of permanent and transitory shocks to parental income matter for child outcomes? Whilst the literature has linked the evolution of lifetime income to consumption behaviour, little is known about the response of child human capital. This paper aims to fill the gap. The first step is to document the income process for the population of parents in a data set of Norway, for children born in 1970-1980. I assume that permanent income follows a random walk and the data indicates an MA(1) process for transitory income. Next, annual household income shocks are estimated as the deviation from the life cycle profile of income, allowing for a parental fixed effect and from this, moment conditions allow a decomposition of household income shocks into permanent and transitory components. The effect of these shocks across child age are then estimated upon the stock of adolescent human capital. The measures of human capital range from cognitive (years of schooling, high school and college attendance, ability) and noncognitive skills (health). I find that the effect of permanent income shocks declines across the age of the child between age 6 and 16 - that is a shock realised when the child is age 6 is more important than a shock realised at age 16, but the effect is constant across early years. When looking just at father's income however, the smooth decline in the effect starts from age zero, through to adolescent years. The difference is likely due to a change in maternal labour supply when children enter school which shifts household permanent income. The declining effect of permanent income shocks across age is intuitive, given that a permanent shock changes household wealth and hence a shock at age 1 drives more future income realisations than a later shock. Transitory income shocks to the household have a slightly increasing effect across child age for three outcomes - years of schooling, college attendance and ability- suggesting that it is the later shocks that matter most for child development. Additionally, there is some evidence that mothers insure the household against paternal transitory income shocks, especially at early ages and during late adolescence. Finally, the results prove robust to checks which vary the persistence of permanent and transitory income shocks.

Author: Christina Felfe, Amy Hsin

Title: The Effect of Maternal Work Conditions on Child Development

Does the work environment mothers are exposed to affect their parenting behavior and hence go on to affect children's achievement and personality development in ways that may influence later status attainment? Using the Panel Study of Income Dynamics-Child Development Supplement we obtain information on children's cognitive test outcomes, children's time diaries, home, school and neighbourhood environment and mothers' occupation. Additionally, linking mothers' occupations, classified according to a 3-digit code, with the Occupational Information Network, we obtain detailed information on mothers' occupations. In a first step we estimate children's cognitive production function applying the value-added plus approach introduced by Todd and Wolpin (2006). In other words, we regress children's cognitive test scores on mother's occupational conditions, such as wages, working hours and occupational hazards, and on a comprehensive set of current and lagged home, school and neighbourhood environment. In an attempt to account for unobserved maternal characteristics and occupational sorting, we additionally control for maternal verbal skills. As mothers' verbal skills prove to be an important determinant for mothers' occupational conditions, we stratify according to mothers' verbal skills and investigate if the types of jobs more and less verbally skilled mother hold differ in their conditions and if their children are differentially affected. The results of the analysis suggest that much of the negative association between exposure to hazardous and stressful work conditions and children's cognitive outcomes can be explained by differences in mothers' verbal skills. These effects may be in part due to the fact that the work conditions that mothers are exposed to vary by skill levels. Less verbally skilled mothers tend to work in jobs that involve on average a higher degree of stress and hazards, but are also lower paid than the jobs of higher skilled mothers. Stratification according to mothers' verbal skills, reveals that exposure to hazardous/stressful work conditions only exerts a negative effect on the verbal test scores of the children of the least skilled mothers.

Author: Astrid Würtz Rasmussen

Title: Family Structure Changes and Children's Health, Behavior, and Educational Outcomes

More and more children do not grow up in traditional nuclear families. Instead they grow up in single parent households or in families with a step-parent. For example, in 1980, almost 83% of all Danish children in the ages 0 to 17 lived with both of their parents, but this number steadily decreased to 73% in 2005. Hence it is important to improve our understanding of the impact of "shocks" in family structure due to parental relationship dissolution on children. International studies mainly suggest a negative relationship between non-nuclear family structure and child outcomes. There are two potential explanations for this. First, families that split up may possess characteristics that are different (and worse) than what is seen in nuclear families, i.e. non-nuclear families are a *selected* group of families. Studies pointing in this direction are Björklund and Sundström (2006) and Björklund, Ginther and Sundström (2007). Another explanation is that there may be negative *causal effects* of separation as found by Ermisch and Francesconi (2001). In this current study I empirically test whether children are traumatized both in the short and the long run by shocks in the family structure during childhood. I focus on educational, behavioral and health outcomes and investigate both the selection and causation explanations. For the estimations I use a Danish administrative register dataset with the full population of children born in January to May 1983, 1984, and 1985. I find a clear negative relation between family structure changes and children's outcomes. Children who have experienced family structure changes during childhood seem to have worse educational outcomes and a higher propensity to being hospitalized and convicted of a crime. The children in the dataset experience up to 13 family structure changes during childhood. More family structure changes implies worse outcomes and might actually be more important than the number of years a child has spent in a single parent household. The age at which the family structure change occurs also seems to be important at least for some outcomes.

Author: Johannes Gernandt

Title: Non-cognitive Abilities, Educational Programs and Interaction – Evaluation on a New Dataset

Together with the employer association “Südwestmetall” and their pedagogical subcontractor “BBQ” we collect a new dataset of disadvantaged youth on the interface between school, apprenticeship and first job with a special focus on non-cognitive abilities. There are three programs: First, BIK helps pupils to complete their basic school education (Hauptschulabschluss), second, GL as a ten-month internship to prepare the attendants for further apprenticeship and third, VME as a normal apprenticeship in firms of the metal- and electro-industry with additional pedagogical support. At the end of our project we plan to observe individual personal data at two times – at the beginning and the end of each program. In a first step we analyze the cross-section data of beginners in 2007/2008. Overall we have 371 BIK, 78 GL and 859 VME attendants in our first wave dataset who had to answer about 40 questions. To measure non-cognitive abilities we adapt the so-called Rotter index (also available in the SOEP for a later comparison) and additional the Tangney-Baumeister-Boone index, where the pupils were asked to agree or disagree to different statements on a likert scale. The indices are clearly positively correlated. Beside the quantitative analysis of non-cognitive abilities we focus on four topics: First, leisure-time activities, second, migration background and language abilities, third, family situation and fourth, education and further plans.

First descriptive results show that:

- Happiness-distribution is comparable to the one found in the SOEP. Overall, higher non-cognitive abilities relate to happier persons.
- Alcohol and drug consumers show lower non-cognitive abilities.
- It seems as if persons with higher non-cognitive abilities show better German language competence, independent of their migration status.
- Apprentices with parents that are engaged in school or discuss with their kids political or cultural topics show higher non-cognitive abilities.
- Persons with higher non-cognitive abilities strive for further education beyond the present program.
- Only 13% of the BIK, but 64% of the GL participants, plan to continue their career in the metal- and electro industry.

This is still work on progress, but we are sure to show more details till October.

Author: Susi Kusche, René Fahr

Title: Individual Determinants of Work Attendance: Evidence on the Role of Personality

The estimated costs of employee absence are high. Even observing the currently historically low absence rates in Germany, firms have to deal with diminished profits due to absenteeism. Current research by Borghans et al. (2008) emphasizes the importance of the linkage between personality measures from psychology and economic preferences such as time preferences and risk aversion, and economic outcomes in general. A key issue is the predictive power of personality measures with respect to economic outcomes. We investigate personality as measured by the Big Five personality scale as an important individual determinant on attendance decisions (as an obvious measure of productivity) using representative data for Germany. In particular, the 2005 wave of the German Socio-Economic Panel provides detailed information on socio-economic background characteristics along with a brief self-report Big Five personality scale. We use estimates of binary selection models and semi-parametric count data regressions to analyze an empirical model based on the theory of hedonic labour market outcomes. These estimates allow us to test hypotheses on the influence of the Big Five personality traits on work attendance. We find clear negative correlations between the probability to be absent and Conscientiousness as well as Agreeableness. For the dimensions of Neuroticism and Extraversion we find a clear positive impact on work attendance decisions. When looking at the length of absence occurrences we find higher absence rates for neurotic employees as well as less days of absence for more agreeable male employees. All influences are in line with our hypotheses derived from social psychology. Our findings have implications for practitioners in personnel departments by supporting the evidence presented in case studies that the Big Five personality tests used in personnel assessment and selection could be also valuable to learn about absenteeism behaviour of employees and not only integrity test as previous research has shown (Ones et al. 2003).

Author: Verena Niepel

Title: The Importance of Cognitive and Non-cognitive Skills for the Experience of Unemployment

This paper studies to what extent cognitive and noncognitive skills in childhood and adolescence are associated with success on the labour market. The analysis builds upon data from the National Child Development Study (NCDS), a cohort study that has been conducted in Great Britain since 1958. It includes information on an individuals complete employment history up until age 42 and cognitive as well as noncognitive skills measured at age 7, 11 and 16. This dataset allows me to contribute to the literature by combining several aspects that were addressed separately in previous research. First, I analyze the probability of experiencing a certain number of unemployment spells up until age 23, 33 and 42. Thereby, the impact of skills in childhood on the experience of unemployment over a large part of the life cycle can be investigated. Furthermore, I study the impact of cognitive and noncognitive skills on the length of unemployment by estimating a flexible hazard rate model. The analysis addresses the issue of reverse causality between skills and outcomes by using skills that were measured before the individuals entered the labour market. While research on skills and their impact on labour market outcomes often has to rely on self-assessments of one's personality and short tests of cognition, the NCDS dataset provides detailed measures on cognitive and noncognitive skills of an individual. Cognitive skills are obtained via tests on math, reading and general ability that were administered to the children in school. Noncognitive skills were assessed by teachers of the children, who are probably more able to provide an objective measure than the individuals themselves or their parents. The feasibility of including both cognitive and noncognitive skills in the estimation allows to account for an omitted variable bias that potentially emerges when only controlling for a one-dimensional skill vector. The results show that the probability to experience unemployment and the duration of unemployment are influenced by the skill vector in different ways. While cognitive skills in childhood play no role in predicting the probability of experiencing unemployment, they are positively associated with the hazard of leaving unemployment. On the other hand, noncognitive skills in childhood and adolescence are important both for the probability of becoming unemployed and the duration of unemployment. However, the positive effect of noncognitive skills on the hazard to leave unemployment is less robust as it is not significant in all specifications.

Author: Laura Wichert

Title: Job Satisfaction, the Willingness to Change a Job and the Actual Job Change: the Role of Personality

The psychological concept of self-control or self-regulation defines how an individual is able to control their emotions and desires in order to reach goals that he or she has set. It is interesting to study the role played by personality traits and risk aversion in determining this self-control. In my paper, using an example from labor economics, I try to shed some light on this issue by incorporating personality traits into the decision of whether or not an individual is willing to change his job. More importantly, I further analyze whether or not the actual job change is realized after the willingness to change jobs sets in. There exists a large literature concerning job search and job changes. However, the role of personality traits in this context has only recently been addressed. There are a few papers that find a strong relationship between job satisfaction, job search and the probability of actually changing jobs. Moreover, the effect of personality traits on job and life satisfaction has been studied, and it was found that personality traits play an important role in these areas. Building upon these results, the contribution of the present paper is twofold: first, I want to analyze the role of personality traits in the interaction between job satisfaction, job search and job changes. Second, the assumption that the different decision steps of planning to change the job and the actual job change are independent is relaxed. In order to capture these possible dependences, a multivariate probit is used. First results show that this model is more appropriate addressing this issue since there is evidence for dependence among the different equations. The analysis uses the German Socio-Economic Panel (SOEP) which provides detailed information about various facets of job and life satisfaction and about intended job search as well as information about individual employment history. Additionally, the data contains measures for personality traits, namely the Big Five and the Locus of Control.

Author: Guido Heineck

**Title: Are you in control?
Autonomy, Control, and Labour Market Success**

There is growing awareness in economics that non-cognitive skills affect individuals' success on the labour market. Among other psychometric measures such as the "Big Five", it is the individuals' belief whether they are in control or not and whether they are able to act autonomously or not which is relevant for labour market outcomes. This analysis adds to the discussion providing further evidence to the so far small literature for Britain. The notion of "being-in-control" is usually captured by Rotter's locus-of-control scale, a scale which measures whether individuals believe that they themselves are mastering their life or whether they believe to be controlled by external forces. However, the data used in this analysis, the British Household Panel Study (BHPS), does not provide the Rotter scale. The analysis is instead based on a measure originally designed to capture the individuals' psychological well-being, the CASP-12 scale, included in the 2006 wave of the BHPS. This scale aims at measuring individuals' extent of control, autonomy, self-realisation, and pleasure. The first two constructs of this scale are used for the analyses here. In particular, the 2006 control and autonomy measures are a) used to generate a combined indicator of not being in control or acting autonomously which b) is then employed in extended Mincer-type earnings functions. To avoid biases that might be caused by a contemporaneous relationship between these non-cognitive skills and the individuals' endowment and outcomes, the 2006 measures are employed in regressions in which all other data come from the 2007 wave of the BHPS.

Author: Fabian Kosse, Friedhelm Pfeiffer

Title: Impatience in the Mother-Child-Dyad

Impatience plays an important role for investment in education, among others, but little is known about the transmission of impatience in the mother-child dyad, when the child is at preschool age. This study provides evidence on the interdependence of impatience among 204 German mother-child pairs from the "SOEP Pilotstudie 2008" (MUKI3b). The data contain experimental measures and survey based information on impatience and intelligence for mothers and their child. Whereas mothers' impatience is experimentally measured via real money involving tradeoffs between smaller-sooner and a larger-later reward, children are rated as patient or impatient resulting from a marshmallow experiment. We investigate the determinants of children's impatience as well as the determinants of mothers' impatience. The direction of time preference formation in the mother-child dyad is assessed finally in a structural model. Our results suggest that more impatient mothers have a higher probability of having an impatient child. An increase of mother's impatience by one standard-deviation increases the probability of child impatience by 8 percent. Furthermore, the probability that a child is patient increases with a longer duration of breastfeeding which might indicate the quality of interaction in infancy. The evidence on the intergenerational transmission of time preferences at preschool age applies for the experimental measure of mother's impatience but not for her self reported impatience. Mother's impatience first decreases with her age and starts to increase again around the age of 38 years, confirming the previous findings. While boys do not differ from girls in impatience mothers with a male child are more impatient. Measures of fluid intelligence are not related to mother's or child's impatience while measures of crystallized intelligence are. Our findings from a structural approach demonstrate that time preferences are transmitted from mothers to her children. In the mother-child dyad mother's impatience is the gravitation centre. In single equation models of children's impatience the coefficient of mother's impatience is downward biased.

Author: Lara Tavares

Title: Parenting Practices, Non-cognitive Skills and Academic Success

In this paper we analyze what parents do (as opposed to who they are) as a determinant of their offspring's educational attainment. In doing so we explore parenting style as a source of economic (dis)advantage. Going a step further, this paper also looks at the influence of some aspects of parenting style on the development of the children's non-cognitive skills. This is also a relevant contribution to the emerging literature on technology of skill formation as there is no other study on the determinants of non-cognitive skills, to the exception of Cunha and Heckman (2008). By looking at parenting practices as a form of parental investment, we also explore the ways through which parenting affects children outcomes, something that is rarely done in economics (Duncan and Magnuson, 2002). The measure of non-cognitive ability used (attitude towards learning) was constructed using insights from the Five-factor model of personality. The estimates of a two stage model of skill formation show that attitude towards learning is an important determinant of educational success. The results using the British Household Panel Survey (BHPS) show that one standard deviation increase in attitude towards learning (at the mean) is associated with a reduction of almost one fourth in the probability of getting only poor GCSEs or no qualifications at all; using the American Longitudinal Study of Adolescent Health (Add Health) the effect of attitude towards learning is even stronger: when attitude towards learning increases by one standard deviation the probability of not graduating from high school drops to less than one-half and the probability of having a Bachelor's degree or attending college more than doubles. As for the role of parenting practices, the results show a statistically significant association between our measures of parenting practices and both educational attainment and the formation of attitude towards learning. Again, this result is obtained using the both BHPS and Addhealth. Following up on the idea that non-cognitive skills can be influenced at later ages than cognitive skills (Cunha et al. 2007), the present work shows that interventions during the adolescent period might indeed be fruitful.