

# ZEW

Zentrum für Europäische  
Wirtschaftsforschung GmbH

## **Leibniz Network**

# **Non-Cognitive Skills Acquisition and Economic Consequences**

Supported by the Leibniz Association within the  
"Pakt für Forschung und Innovation 2008"

Centre for European Economic Research (ZEW), Mannheim

Centre for the Economics of Education, London

Center for Quantitative Methods and Survey Research, University of Konstanz

Center for Research on Intentions and Intentionality, University of Konstanz

Central Institute of Mental Health, Mannheim

Economics Research Center, University of Chicago

German Socio-Economic Panel at DIW, Berlin

SÜDWESTMETALL Bildungswerk, Stuttgart

## **First Newsletter on Activities, October 2008**

Dear colleagues,

This newsletter provides information on the scientific activities of our multidisciplinary and international Leibniz Network **Non-Cognitive Skills: Acquisition and Economic Consequences**. It is divided into five subsections (see below), summarizing our main network and research activities. We plan to collect the information on a regularly basis and to distribute the newsletter three times during the duration of the network. The newsletter also aims at documenting network activities for evaluation purposes. We kindly ask you to include a sentence, such as “We gratefully acknowledge support from the Leibniz Association, Bonn, in the research network ‘Non-Cognitive Skills: Acquisition and Economic Consequences’” in all discussion papers and publications that have been written with support from the Leibniz network. Whenever you feel the need or have a suggestion, please feel free to contact me at [Pfeiffer@zew.de](mailto:Pfeiffer@zew.de).

Our second conference will take place at Lake Constance, **March 19-21, 2009**, and will be organized by Anja Achtziger and Peter Gollwitzer. Our third conference will take place at SOEP, DIW Berlin, **October 22-24, 2009**, and will be organized by Jürgen Schupp and C. Katharina Spieß from the SOEP group.

Best wishes, Friedhelm Pfeiffer

Network Coordination, ZEW Mannheim

## Content

1. Institutions, People
2. Talks, Discussions
3. Papers, Publications
4. Mobility, Projects
5. Conferences, Workshops

## Imprint

Network Activities – published regularly

Publisher: Leibniz Network Noncognitive Skills

Network Coordination: Centre for European Economic Research (ZEW) Mannheim, L 7, 1, 68161 Mannheim, P.O. Box 10 34 43; 68034 Mannheim, Germany.

Registered office of the GmbH: Mannheim - Amtsgericht Mannheim HRB 6554, Chairman of the supervisory board: Finanzminister a. D. Gerhard Stratthaus, MdL;

Board of Directors: Prof. Dr. Dr. h.c. mult. Wolfgang Franz, Thomas Kohl; Internet: [www.zew.eu](http://www.zew.eu).

Editor (responsible for content): PD Dr. Friedhelm Pfeiffer, Phone +49/621/1235-150, Fax +49/621/1235-225, E-mail: [pfeiffer@zew.de](mailto:pfeiffer@zew.de).

Reprint and further distribution with mention of reference and sending of a voucher copy

© Zentrum für Europäische Wirtschaftsforschung GmbH (ZEW), Mannheim, 2008

You may unsubscribe with an email to: [pfeiffer@zew.de](mailto:pfeiffer@zew.de). Mail text: Unsubscribe NCS Activities

# 1. Institutions, People

## **Center for Research on Intentions and Intentionality, University of Konstanz**

PD Dr. Anja Achtziger, Dr. Ute Bayer, Prof. Peter M. Gollwitzer, Ph.D.

## **Center for Quantitative Methods and Survey Research, University of Konstanz**

Prof. Dr. Winfried Pohlmeier, Laura Wichert

## **Central Institute of Mental Health, Mannheim**

Dorothea Blomeyer, Prof. Dr. Manfred Laucht

## **Centre for the Economics of Education, London School of Economics and Political Science**

Prof. Joan Blanden, Ph.D., Clair Crawford, Prof. Steve Machin, Ph.D., Emma Tominey

## **German Socio-Economic Panel Study at DIW, Berlin**

Prof. Dr. Jürgen Schupp, Prof. Dr. C. Katharina Spiieß, Prof. Dr. Gert G. Wagner, Dr. Silke Anger and Eva Berger.

## **Economic Research Center, University of Chicago**

Prof. James J. Heckman, Ph.D., Pia Pinger

## **BBQ Berufliche Bildung, Bildungswerk der Baden-Württembergischen Wirtschaft, Stuttgart**

Stefan Küpper, Johannes Krumme, Gerhard Selzer

## **Centre of European Economic Research, Mannheim**

Katja Coneus, Philipp Eisenhauer, Prof. Dr. Dr. hc. mult. Wolfgang Franz (Chairman of the Network Committee), Johannes Gernandt, Dr. Andrea Mühlenweg,  
PD Dr. Friedhelm Pfeiffer (Network Coordination),  
Verena Niepel, Pia Pinger, Karsten Reuß

## 2. Talks / Discussions

- Achtziger, A., Bayer, U. C. & Gollwitzer, P. M. (2008, May). Self-regulation skills and achievement in university students. Paper presented at the Inaugural Conference on *Non-cognitive Skills: Acquisition and Economic Consequences* at the Zentrum für europäische Wirtschaftsforschung (ZEW), Mannheim
- Achtziger, A., Keil, A., Moratti, S., Jaudas, A. & Gollwitzer, P. M. (2008, May). The activation and self-regulation of stereotypes and prejudice in the brain. Paper presented at the expert meeting "A Social Neuroscience approach to Social Cognition" of the European Social Cognition Network [ESCON]; Ghent; Organizer: Frank van Overwalle.
- Achtziger, A., Keil, A., Moratti, S., Jaudas, A. & Gollwitzer, P. M. (2008, June). Activation and inhibition of stereotypic person inferences in the brain. Paper presented at the Symposium "From attribution theory to social cognitive neuroscience: A symposium in honour of Friedrich Försterling"; 15th General Meeting of The European Association of Experimental Social Psychology [EAESP]; Opatija; Organizers: Denis Hilton & Frank van Overwalle.
- Achtziger, A., Michalski, N. & Gollwitzer, P. M. (2008, July). Self-Control of Negative Inner States: Goal Shielding by Means of Implementation Intentions. Paper presented at the Symposium "Motivation, recall, and information processing" of the International Conference on Psychology [ICP]; Organizer: Bo Sanitioso; Berlin.
- Anger, Silke, Effects of cognitive and non-cognitive skills on labour market outcomes, *Inaugural Conference Non-cognitive Skills: Acquisition and Economic Consequences*, ZEW Mannheim, Germany, May, 15 – May, 17 2008, *SOEP2008 International Users Conference*, DIW Berlin, Germany, July, 9 – July, 11 2008, *Verein für Socialpolitik*, Graz, Austria, September 23 – September 26, 2008, *Presentation at the University of Dundee/Scotland*, October 21, 2008 (together with Guido Heineck).
- Bayer, U. C., Achtziger, A. & Gollwitzer, P. M. (2008, May). Stress and self-regulation in freshman at the University of Konstanz. Paper presented at the Inaugural Conference on Non-cognitive Skills: Acquisition and Economic Consequences at the Zentrum für europäische Wirtschaftsforschung (ZEW), Mannheim
- Blanden, Jo, Recent Evidence on Intergenerational Mobility in Britain, *Millennium Cohort Study User Group*, London, October 2007; *Economics of Education and Education Policy in Europe Network Workshop*, Centre for Economic Policy Research network, Madrid, October 2007, *Royal Statistical Society User Group*, London, November 2007.
- Blanden, Jo, Up and Down the Generational Income Ladder in Britain: Past Changes and Future Prospects, *Intergenerational Mobility conference*, Edinburgh, June 2008.
- Blomeyer, Dorothea, Verlauf des Rauschtrinkens von 15 bis 19 Jahren: Bedeutung biologischer und psychosozialer Prädiktoren, Freundschaftstreffen der Universitätskliniken für Kinder- und Jugendpsychiatrie und Psychotherapie Heidelberg, Homburg und Mannheim, CIMH Mannheim, Jan, 8th 2008.
- Blomeyer, Dorothea, Childhood temperament: Assessment and Findings from the Mannheim Study of Children at Risk, Inaugural Conference Non-cognitive Skills:

- Acquisition and Economic Consequences, ZEW Mannheim, Germany, May 16, 2008.
- Blomeyer, Dorothea, Tobias Banaschewski und Manfred Laucht, Frühes Rauschtrinken – Eigenständiger Risikofaktor für die Entwicklung riskanter Trinkmuster?, 1. Deutscher Suchtkongress, Mannheim, Germany, June, 11th – June, 14th 2008.
- Blomeyer, Dorothea, Mannheimer Risikokinderstudie: CRHR1 x Life Events - Ein Beispiel für eine Gen-Umwelt-Interaktion, CIMH Retreat, July, 3rd – July, 5th 2008.
- Blomeyer, Dorothea, Prediction of heavy drinking in young adults by ADHD and comorbid ODD/CD at different stages of development, 19th Eunethydis Meeting, Mannheim, Oct 2nd – Oct 5th 2008.
- Coneus, Katja, The Intergenerational Transmission of Health in Early Childhood, *SOEP User Conference*, Berlin, July 11<sup>th</sup> 2008; *EALE*, Amsterdam, September 19<sup>th</sup> 2008; *Verein für Socialpolitik*, Graz, September 24<sup>th</sup> 2008 (together with C. Katharina Spiess).
- Coneus, Katja, Initial Conditions, Ability Development and Social Achievement: New Evidence from MARS, *Inaugural Conference Non-cognitive Skills: Acquisition and Economic Consequences*, ZEW Mannheim, Germany, May, 15 – May, 17 2008.
- Coneus, Katja, Noncognitive Skills, ICT Use and Educational Dropouts, *ESPE* London, June 19<sup>th</sup> 2008; *Economics of education conference*, University of Zurich, June 25<sup>th</sup> 2008.
- Coneus, Katja, Self-Productivity in Early Childhood, *Workshop on Health Capital and Human Capital*, July 6<sup>th</sup> 2007, *Annual meeting of the EEA*, Budapest, August 27<sup>th</sup> 2007; *Annual meeting of the Verein für Socialpolitik*, München, October 10<sup>th</sup> 2007.
- Crawford, Claire, The Impact of Early Cognitive and Non-Cognitive Skills on Later Outcomes, *DWP-HMT labour market conference*, London, October 2007; *DCSF-DIUS conference*, London, November 2007; *SOLE*, New York, May 10<sup>th</sup> 2008.
- Eisenhauer, Philipp, Assessing Intergenerational Earnings Persistence Among German Workers, *German Research Foundation*, Nuremberg, October 5<sup>th</sup> 2007; *Seminar* University of Konstanz, June 28<sup>th</sup> 2008; *SOEP User Conference*, Berlin, July 11<sup>th</sup> 2008; *Annual Meeting of the European Economic Association*, Milan, August 28<sup>th</sup> 2008.
- Gernandt, Johannes, Language Usage, Participation, Employment and Earnings, *SOLE*, New York, May 10<sup>th</sup> 2008; *Economics of education conference*, University of Zurich, June 25<sup>th</sup> 2008; *Statistische Woche*, Köln, September 16<sup>th</sup> 2008.
- Gernandt, Johannes, Earnings Prospects for People with Migration Background in Germany, *Humboldt University*, Berlin, June 19<sup>th</sup> 2008.
- Gernandt, Johannes, Noncognitive Skills, Internet Use and Educational Dropout, *SOEP User Conference*, Berlin, July 11<sup>th</sup> 2008.
- Gollwitzer, Peter M., Discussant, Symposium on "Self-regulatory strength and ego-depletion: A decade later" at the XXIXth International Congress of Psychology, Berlin, Germany, 2008.

- Gollwitzer, Peter M., Chair, "Perceptual consequences of threat and prejudice: Misperceiving weapons and other dangerous objects" (Randy Larson) at the XXIXth International Congress of Psychology, Berlin, Germany, 2008.
- Gollwitzer, Peter M., Chair, "Groups as adaptive devices: Free-rider problems, the wisdom of crowds, and evolutionary games" (Tatsuya Kameda) at the XXIXth International Congress of Psychology, Berlin, Germany, 2008.
- Gollwitzer, Peter M., Mentor, "Meet your favorite mentor" at the XXIXth International Congress of Psychology, Berlin, Germany, 2008.
- Gollwitzer, Peter M., The power of planning: Effective self-regulation of goal striving, *Keynote Lecture*, Inaugural Conference Non-cognitive Skills: Acquisition and Economic Consequences, ZEW Mannheim, Germany, May 17, 2008.
- Gollwitzer, Peter M., "Automaticity in goal pursuit." *Invited Lecture* at the Summer School "Self-regulation" at the University of Konstanz, Freudental, Germany, 2007.
- Gollwitzer, Peter M., "Self-regulation through planning." *Invited talk* at the Self & Identity Pre-Conference at the Annual Meeting of the Society of Experimental Social Psychology, Chicago, 2007.
- Gollwitzer, Peter M., "The power of planning." *Invited Lecture* at the D. O. Hebb Lecture Series at McGill University, Montreal, Canada, 2008.
- Gollwitzer, Peter M., "Planned action." *Invited Talk* at the Purdue Symposium on Psychological Sciences: Behavior in Social Psychological Theory and Research. West Lafayette, 2008.
- Gollwitzer, Peter M., "New directions in studying nonconscious goal pursuit: Transitions between conscious and nonconscious action control." (with E. J. Parks-Stamm & G. Oettingen) *Invited Talk* at the Consciousness, Agency, and the Will Interdisciplinary Conference, University of Edinburgh, UK, 2008.
- Gollwitzer, Peter M., "The power of planning." *Invited Talk* at the 1st Munich Symposium on Motivation, Munich, Germany, 2008.
- Keil, A. & Achtziger, A. (2008, May). The role of defensive/appetitive motivation in attention: Cortical networks and perception-action links. Paper presented at the Symposium "Cognition in appetitive and defensive processing" of the 20th Annual Convention of the American Physiological Society (APS); Organizers: Prof. Dr. Alexandra Freund & Prof. Dr. Andreas Keil; Chicago.
- Laucht, Manfred, Longitudinal research into child development from birth to adolescence: Findings from the Mannheim Study of Children at Risk, *Inaugural Conference Non-cognitive Skills: Acquisition and Economic Consequences*, ZEW Mannheim, Germany, May 17, 2008.
- Laucht, Manfred und Wolfgang Ihle, Symposium: Riskanter Alkoholkonsum im Jugendalter: Zwischen Empirie und Praxis, 1. Deutscher Suchtkongress, Mannheim, Germany, June, 11th – June, 14th 2008.
- Heckman, James J., The Economics and Psychology of Inequality and Human Development, *Marshall Lecture*, Annual Meeting of the European Economics Association, Milan, Italy. August 29, 2008.
- Heckman, James J., Coping with the Accident of Birth: The Case for Early Childhood Interventions, Den Haag, Netherlands. May 27, 2008.

- Heckman, James J., Noncognitive Skills: Acquisition and Economic Consequences, *Keynote Lecture*, Inaugural Conference Non-cognitive Skills: Acquisition and Economic Consequences, ZEW Mannheim, Germany, May 15, 2008.
- Heckman, James J., The Technology of Skill Formation, *Guinness Lecture*, Coombe Women's Hospital, Dublin, Ireland, November 2, 2007.
- Machin, Steve, Early Age Test Scores and Recent Changes in Intergenerational Mobility, *IZA Workshop: Intergenerational Transmission of Socioeconomic Outcomes: Identifying the Underlying Mechanism*, IZA, Bonn, October 2007.
- Michalski, V., Achtziger, A., Jaudas, A., Mohs, J. & Gollwitzer, P. M. (2008). Alter Mann mit MP3-Player und junger Mann mit Hörgerät?! Wenn visuelle Belastung das Erinnern stereotyper Gegenstände beeinflusst. Paper presented at the Tagung experimentell arbeitender Psychologen, TEAP, Marburg.
- Michalski, V., Achtziger, A. & Gollwitzer, P. M. (2008, Mai). The effects of simple plans under conditions of induced stress. Paper presented at the Inaugural Conference on Non-cognitive Skills: Acquisition and Economic Consequences at the Zentrum für Europäische Wirtschaftsforschung (ZEW), Mannheim.
- Mühlenweg, Andrea, Persistence of the School Entry Age Effect in a System of Flexible Tracking, *Annual Meeting of the Canadian Economic Association*, Vancouver, June 6<sup>th</sup> 2008.
- Mühlenweg, Andrea, Educational Effects of Alternative Secondary School Tracking Regimes in Germany, *International Conference on Educational Economics*, Athen, August 28<sup>th</sup>.
- Pfeiffer, Friedhelm, Intra-und intergenerationale Umverteilungseffekte der bundesdeutschen Rentenversicherung auf Basis humankapitaltheoretischer Überlegungen, *Workshop Wohlstandsverteilung und Gesetzliche Rentenversicherung*, Deutsche Rentenversicherung, Berlin, September 11<sup>th</sup> 2007.
- Pfeiffer, Friedhelm, Mobility as a dimension of human capital formation, *Pathways to worksite*, University of Paderborn, March 6<sup>th</sup> 2008.
- Pfeiffer, Friedhelm, Discussant „Downward wage rigidities: evidence and implications“, *Wage Dynamics in Europe. Findings from the Wage Dynamics Network*, European Central Bank, Frankfurt am Main, June 24<sup>th</sup> 2008.
- Pfeiffer, Friedhelm, Initial risk matrix, home resources, ability development and children's achievement, *Annual Meeting of the European Economic Association*, Milano, August 28<sup>th</sup> 2008.
- Pfeiffer, Friedhelm, Ungleichheit von Fähigkeiten – Anmerkungen aus ökonomischer Sicht, *Bildungsungleichheit revisited*, Zentrum für Schul- und Bildungsforschung, Martin-Luther-Universität Halle-Wittenberg, October 6<sup>th</sup> 2008.
- Pinto, Rodrigo and Seong Moon, Cognitive and Noncognitive Effects of Early Childhood Intervention: the Case of Perry Preschool Program, (with James J. Heckman), *Inaugural Conference Noncognitive Skills: Acquisition and Economic Consequences*, ZEW Mannheim, Germany, May 17, 2008.
- Pohlmeier, Winfried, Noncognitive Skills and Female Labour Participation, *Inaugural Conference Noncognitive Skills: Acquisition and Economic Consequences*, ZEW Mannheim, Germany, May 16, 2008.
- Pohlmeier, Winfried, Noncognitive Skills and Female Labour Participation, *DFG-Conference on Heterogeneous Labour*, University of Konstanz, June 28, 2008.

- Reuß, Karsten, Intra-und Intergenerationale Umverteilungseffekte der bundesdeutschen Rentenversicherung auf Basis humankapitaltheoretischer Überlegungen, Workshop „Wohlstandsverteilung und Gesetzliche Rentenversicherung“, *Deutsche Rentenversicherung*, Berlin, September 11<sup>th</sup> 2007.
- Reuß, Karsten, Age dependant skill formation and returns to education, *Annual Meeting of the Canadian Economic Association*, Vancouver, June 6<sup>th</sup> 2008; *Economics of Education Conference*, University of Zurich, June 26<sup>th</sup> 2008.
- Reuß, Karsten, Preventative and Remedial Policies to Reduce Lifetime Earnings Inequality in Germany, *European Society for Population Economics*, June 20<sup>th</sup> 2008; *Annual meeting of the EALE*, Amsterdam, September 19<sup>th</sup> 2008.
- Tominey, Emma, Test Score Gaps and Non-Cognitive Skills Across Countries: Similarities and Differences, *Centre Economic Performance*, London, May 2008; *Inaugural Conference Non-cognitive Skills: Acquisition and Economic Consequences*, ZEW Mannheim, Germany, May, 15 – May, 17 2008.
- Spiess, C. Katharina, First pre-test evidence of the new SOEP childhood survey, *Inaugural Conference Non-cognitive Skills: Acquisition and Economic Consequences*, ZEW Mannheim, Germany, May, 15 – May, 17 2008 (together with E. Berger, E. Bügelmayer and J. Schupp).
- Schupp, Jürgen, Effects of fine arts' competencies on Educational Outcomes – Cognitive effects of active practice of music. Presentation at the Leibniz-Research Network *Inaugural Conference Noncognitive Skills: Acquisition and Economic Consequences*, at ZEW Mannheim, May 15--17 2008.



### 3. Papers, Publications

- Achtziger, Anja, Bayer, Ute Christine, & Gollwitzer, Peter M. (under review). Committing Oneself to Implementation Intentions: Attention and Memory Effects for Selected Situational Cues. *Journal of Experimental Psychology*.
- Achtziger, Anja, & Gollwitzer, Peter M. (2007). Rubicon model of action phases. In R. F. Baumeister & K. D. Vohs (Eds.), *Encyclopedia of social psychology, Vol. 2* (pp. 769-771). Thousand Oaks, CA: Sage.
- Achtziger, Anja & Gollwitzer, Peter M. (2008). Motivation and volition during the course of action. In J. Heckhausen & H. Heckhausen (Eds.), *Motivation and Action*. London: Cambridge University Press.
- Achtziger, Anja & Gollwitzer, Peter M. (in press). Automotiv-Theorie [Automotive theory]. In V. Brandstätter & J. H. Otto, (Eds.), *Handbuch der Allgemeinen Psychologie: Motivation und Emotion*. Göttingen: Hogrefe.
- Achtziger, Anja & Gollwitzer, Peter M. (in press). Intentionstheoretischer Ansatz [Intentional action control]. In V. Brandstätter & J. H. Otto (Eds.), *Handbuch der Allgemeinen Psychologie: Motivation und Emotion*. Göttingen: Hogrefe.
- Achtziger, Anja & Gollwitzer, Peter M. (in press). Rubikonmodell der Handlungsphasen [Rubicon model of action phases]. In V. Brandstätter, & J. H. Otto (Eds.), *Handbuch der Allgemeinen Psychologie: Motivation und Emotion*. Göttingen: Hogrefe.
- Achtziger, Anja, Gollwitzer, Peter M., & Sheeran, Paschal (2008). Implementation intentions and shielding goal striving from unwanted thoughts and feelings. *Personality and Social Psychology Bulletin*, 34(3), 381-393.
- Achtziger, Anja, Fehr, Torsten, Oettingen, Gabriele, Gollwitzer, Peter M., & Rockstroh, Brigitte (in press). Strategies of intention formation are reflected in continuous MEG activity. *Social Neuroscience*.
- Bayer, C., & Gollwitzer, P. M. (2007). Boosting scholastic test scores by willpower: The role of implementation intentions. *Self and Identity*, 6, 1-19.
- Bayer, Ute Christine, Achtziger, Anja, Gollwitzer, Peter M. & Moskowitz, Gordon. (in press). Responding to subliminal cues: Do if-then plans cause action preparation and initiation without conscious intent? *Social cognition*.
- Becker, Katja, Mahha El-Faddagh, Martin H. Schmidt, Günter Esser und Manfred Laucht (2008), Interaction of dopamine transporter genotype with prenatal smoke exposure on ADHD symptoms. *Journal of Pediatrics*, 152, 263-269.
- Blanden, Jo, Steve Machin (2008), Up and Down the Generational Income Ladder in Britain: Past Changes and Future Prospects, *NIESR working paper*.
- Blomeyer, Dorothea, Coneus, Katja, Laucht, Manfred and Pfeiffer, Friedhelm (2008), Initial Risk Matrix, Home Resources, Ability Development and Children's Achievement, *IZA Discussion Paper 3692*.
- Blomeyer D, Laucht M, Hohm E, Hinckers A, Schmidt MH (2007), Exzessiver Alkoholkonsum bei 15-Jährigen mit externalen Störungen im Kindes- und Jugendalter. *Psychiatrie, Psychologie und Psychotherapie*, 55, 145-154.
- Blomeyer, Dorothea, Coneus, Katja, Laucht, Manfred and Pfeiffer, Friedhelm (2008), Self-productivity and Complementarities in Human Development: Evidence from

- the Mannheim Study of Children at Risk, *ZEW Discussion Paper* No. 08-067, IZA Discussion Paper 3734.
- Blomeyer, Dorothea, Katja Coneus, Friedhelm Pfeiffer and Manfred Laucht (2008), Initial risk matrix, home resources, ability development and children's achievement, *IZA Discussion Paper* 3692.
- Blomeyer, Dorothea, Martin H. Schmidt und Manfred Laucht (2008), Rauschtrinken bei Jugendlichen: Zusammenhang mit Temperament, Freundeskreis und elterlichem Erziehungsverhalten. *Kindheit und Entwicklung*, 17, 22-30.
- Blomeyer, Dorothea, Jens Treutlein, Günter Esser, Martin H. Schmidt, Gunter Schumann und Manfred Laucht (2008), Interaction between CRHR1 gene and stressful life events predicts adolescent heavy alcohol use. *Biological Psychiatry*, 63, 146-151.
- Borghans, Lex, Angela L. Duckworth, James J. Heckman, and Bas ter Weel (2008), The Economics and Psychology of Personality Traits, forthcoming *Journal of Human Resources*.
- Carneiro, Pedro, Claire Crawford, Alissa Goodman (2007), The Impact of Early Cognitive and Non-Cognitive Skills on Later Outcomes. *CEE working paper*.
- Cohen, A.-L., Jaudas, A., & Gollwitzer, P. M. (2008). Number of cues influences the cost of remembering to remember. *Memory & Cognition*, 36, 149-156.
- Cohen, A.-L., Bayer, U. C., Jaudas, A., & Gollwitzer, P. M. (2008). Self-regulatory strategy and executive control: Implementation intentions modulate task switching and Simon task performance. *Psychological Research*, 72, 12-26.
- Cohen, A.-L., & Gollwitzer, P. M. (2008). The costs of remembering to remember: Cognitive load and implementation intentions influence ongoing task performance. In M. Kliegel, M. McDaniel, & G. Einstein (Eds.), *Prospective memory: Cognitive, neuroscience, developmental, and applied perspectives* (pp. 367-390). Mahwah, New Jersey: Erlbaum.
- Coneus, Katja, Kathrin Göggel und Grit Mühler (forthcoming), Maternal Employment and Child Care Decision, *Oxford Economic Papers*.
- Coneus, Katja, Johannes Gernandt and Marianne Saam (2008), Noncognitive Skills, Internet Use and Educational Dropouts, *ZEW Discussion Paper* No. 08-043.
- Coneus, Katja and Friedhelm Pfeiffer (2008), Self-Productivity in Early Childhood, *ZEW Discussion Paper* No. 07-053, *SOEPpapers* No. 39.
- Coneus, Katja and C. Katharina Spieß (2008), The Intergenerational Transmission of Health in Early Childhood, *ZEW Discussion Paper* No. 08-073, *SOEP Papers* No. 126.
- Cunha, Flavio and James J. Heckman (2008a), A New Framework for the Analysis of Inequality, *Macroeconomic Dynamics*, 12(Supplement 2), 315-354.
- Cunha, Flavio and James J. Heckman (2008b), Formulating, Identifying and Estimating the Technology of Cognitive and Noncognitive Skill Formation, forthcoming *Journal of Human Resources*.
- Desrivières, Sylvane, Krause, K., Dyer, A., Frank, J., Blomeyer, D., Lathrop, M, Mann, K., Banaschewski, T, Laucht, M. and Schumann, G. (2008) Nucleotide Sequence Variation within the PI3K p85 alpha gene associates with alcohol risk drinking behaviour in adolescents. *PLoSOne*, 3, e1769.

- Dyer, AS, Blomeyer, D, Laucht, M, Schmidt, MH (2007) Psychische Folgen des Übergewichts im Grundschulalter. *Kindheit und Entwicklung*, 16, 190-197.
- Eisenhauer, Philipp and Friedhelm Pfeiffer (2008), Assessing Intergenerational Earnings Persistence among German Workers, *Journal of Labour Market Research*, 2&3, 119-137.
- Faude-Koivisto, T., & Würz, D., & Gollwitzer, P. M. (2008). Implementation intentions: The mental representations and cognitive procedures of IF-THEN planning. In W. Klein & K. Markman (Eds.), *The handbook of imagination and mental simulation* (pp. 69-86). New York: Guilford.
- Fujita, K., Gollwitzer, P. M., & Oettingen, G. (2007). Mindsets and preconscious open-mindedness to incidental information. *Journal of Experimental Social Psychology*, 43, 48-61.
- Gawrilow, C., & Gollwitzer, P. M. (2008). Implementation intentions facilitate response inhibition in ADHD children. *Cognitive Therapy and Research*, 32, 261-280.
- Gebel, Michael and Friedhelm Pfeiffer (2008), Educational Expansion and its Heterogeneous Returns for Wage Workers, *ZEW Discussion Paper No. 07-010*, *SOEP Papers No. 13*.
- Gernandt, Johannes and Friedhelm Pfeiffer (2007), Rising Wage Inequality in Germany, *Journal of Economics and Statistics*, 227 (4), 358 – 380.
- Gernandt, Johannes and Friedhelm Pfeiffer (2008), Wage Convergence and Inequality after Unification: (East) Germany in Transition, *ZEW Discussion Paper No. 08-022*, *SOEP Papers No. 107*.
- Gollwitzer, P. M., & Oettingen, G. (2007). The role of goal setting and goal striving in medical adherence. In D. C. Park & L. L. Liu (Eds.), *Medical Adherence and Aging. Social and Cognitive Perspectives* (pp. 23-47). Washington, D. C.: American Psychological Association.
- Gollwitzer, P.M., & Cohen, A-L. (2007). Commentary: Goals and the intentions meant to fulfill them. In M. Kliegel, M. McDaniel & G. Einstein (Eds.), *Prospective memory: Cognitive, neuroscience, developmental, and applied perspectives* (pp. 433-440). Mahwah, New Jersey: Erlbaum.
- Gollwitzer, P. M., Parks-Stamm, E. J., Jaudas, A., & Sheeran, P. (2008). Flexible tenacity in goal pursuit. In J. Shah & W. Gardner (Eds.), *Handbook of motivation science* (pp. 325-341). New York: Guilford Press.
- Gollwitzer, P. M., & Cohen, A.-L. (2008). Goals and the intentions meant to fulfill them. In M. Kliegel, M. McDaniel, & G. Einstein (Eds.), *Prospective memory: Cognitive, neuroscience, developmental, and applied perspectives* (pp. 433- 440). Mahwah, New Jersey: Erlbaum.
- Gollwitzer, P. M., & Oettingen, G. (2008). The question-behavior effect from an action control perspective. *Journal of Consumer Psychology*, 18, 107-110.
- Gollwitzer, P. M., Gawrilow, C., & Oettingen, G. (in press). The power of planning: Effective self-regulation of goal striving. In R. Hassin, K. Ochsner, & Y. Trope, (Eds.), *Self-control*. Oxford University Press.
- Gollwitzer, P. M., Parks-Stamm, E. J., & Oettingen, G. (in press). The return of consciousness in goal pursuit. In E. Morsella, J. A. Bargh, & P. M. Gollwitzer (Eds.), *The Oxford Handbook of Human Action*. Oxford: Oxford University Press.

- Grimmer, Yvonne, Jana Vitt, Christine Jennen-Steinmetz, Katja Becker, Martin H. Schmidt und Manfred Laucht (2007), Hohe Persistenz des Übergewichts bei Kindern der Mannheimer Risikokinderstudie. *Monatsschrift Kinderheilkunde*, 156, 365-370.
- Heineck, Guido, and Silke Anger (2008), The Returns to Cognitive Abilities and Personality Traits in Germany, SOEP Paper No. 124, German Institute for Economic Research. (also: LASER Discussion Paper No. 19, University of Erlangen-Nuremberg).
- Henderson, M., Gollwitzer, P. M., & Oettingen, G. (2007). Implementation intentions and disengagement from a failing course of action. *Journal of Behavioral Decision Making*, 20, 81-102.
- Henderson, M. D., de Liver, Y., & Gollwitzer, P. M. (2008). The effects of implemental mindset on attitude strength. *Journal of Personality and Social Psychology*, 94, 396-411.
- Laucht, Manfred, Katja Becker, Josef Frank, Martin H. Schmidt, Günter Esser, Jens Treutlein, Markus H. Skowronek and Gunter Schumann (2008), Genetic variation in dopamine pathways differentially associated with smoking progression in adolescence. *Journal of the American Academy of Child and Adolescent Psychiatry*, 47 (6), 673-681.
- Laucht, Manfred, Katja Becker, Dorothea Blomeyer and Martin H Schmidt (2007), Novelty seeking involved in mediating the association between the DRD4 exon III polymorphism and heavy drinking in male adolescents: Results from a high-risk community sample. *Biological Psychiatry*. 61, 87-92
- Laucht, Manfred, Erika Hohm, Günter Esser, Martin H Schmidt and Katja Becker (2007), Association between ADHD and smoking in adolescence: Shared genetic, environmental and psychopathological factors. *Journal of Neural Transmission*, 114, 1097-1104
- Laucht, Manfred and Brigitte Schmid (2007), Früher Einstieg in den Alkohol- und Tabakkonsum: Indikator für eine erhöhte Suchtgefährdung? *Zeitschrift für Kinder- und Jugendpsychiatrie und Psychotherapie*, 35, 137-143
- Laucht, Manfred, Markus H Skowronek, Katja Becker, Thomas G Schulze, Martin H Schmidt, Günter Esser, Marcella Rietschel (2007), Interacting effects of dopamine transporter gene and psychosocial adversity on ADHD symptoms among 15-year-olds from a high-risk community study. *Archives of General Psychiatry*, 64, 585-590
- Heckman, James J., Lance Lochner and Petra Todd (2008), Earnings Functions and Rates of Return, *Journal of Human Capital*, 2(1), 1-31.
- Heckman, James J., F. Flyer and C. Loughlin (2008), An Assessment of Causal Inference in Smoking Initiation Research and a Framework for Future Research, *Economic Inquiry*, 46(1), 37-44.
- Heckman, James J. (2008), The Role of Income and Family Influence on Child Outcomes," forthcoming, *Annals of the New York Academy of Sciences*, 1136 (Reducing the Impact of Poverty on Health and Human Development: Scientific Approaches): 307-323.
- Heckman, James J. (2008), Schools, Skills and Synapses, forthcoming, *Economic Inquiry*.

- Morsella, E., Bargh, J. A., & Gollwitzer, P. M. (Eds.). (in press). *The Oxford Handbook of Human Action*. Oxford: Oxford University Press.
- Mühlenweg, Andrea (2008), Ein erster bildungsökonomischer Überblick mit besten Referenzen (Sammelrezension), *Zeitschrift für Erziehungswissenschaft* (in print).
- Oettingen, G., Sevincer, A. T., & Gollwitzer, P. M. (2008). Goal pursuit in the context of culture. In R. Sorrentino, & S. Yamaguchi (Eds.), *The handbook of motivation and cognition across cultures* (pp. 191-211). San Diego: Elsevier/Academic Press.
- Oettingen, G., & Gollwitzer, P. M. (in press). Strategies of setting and implementing goals: Mental contrasting and implementation intentions. In J. E. Maddux & J. P. Tangney (Eds.), *Social psychological foundations of clinical psychology*. New York: Guilford.
- Parks-Stamm, E., Gollwitzer, P. M., & Oettingen, G. (2007). Action control by implementation intentions: Effective cue detection and efficient response initiation. *Social Cognition*, 25, 248-266.
- Parks-Stamm, Elizabeth. J., Achtziger, Anja, & Gollwitzer, Peter M. (2007). Implementation intentions. In R. F. Baumeister & K. D. Vohs (Eds.), *Encyclopedia of social psychology*, Vol. 1 (pp. 461-463). Thousand Oaks, CA: Sage.
- Parks-Stamm, E. J., & Gollwitzer, P. M. (in press). Goal implementation: The costs and benefits of IF-THEN planning. In H. Grant & G. B. Moskowitz (Eds.), *The big book of goals*. New York: Guilford.
- Paul, I., Gawrilow, C., Zech, F., Gollwitzer, P. M., Rockstroh, B., Odenthal, G., Kratzer, W., & Wienbruch, C. (2007). If-then planning modulates the P300 in children with attention deficit hyperactivity disorder. *Neuro Report* 18, 653-657.
- Perkins, M. B., Jensen, P. S., Jaccard, J., Gollwitzer, P. M., Oettingen, G., Pappadopulos, E., & Hoagwood, K. E. (2007). Applying theory-driven approaches to understanding and modifying clinicians' behavior: What do we know? *Psychiatric Services*, 58, 342-348.
- Pfeiffer, Friedhelm and Karsten Reuß (2008), Age-dependent Skill Formation and Returns to Education, *Labour Economics* 15(4), 2008, 631-646.
- Pfeiffer, Friedhelm and Karsten Reuß (2008), Intra- und intergenerationale Umverteilungseffekte in der bundesdeutschen Alterssicherung auf Basis humankapitaltheoretischer Überlegungen, *Deutsche Rentenversicherung* 63 (1), 60-84.
- Pfeiffer, Friedhelm and Karsten Reuß (2008), Fähigkeiten und Mobilität – Ökonomische Konsequenzen für das Humankapital in Ostdeutschland, in: K. Friedrich and A. Schultz, *Brain drain oder brain circulation? Konsequenzen und Perspektiven der Ost-West-Migration*, forum ifl Bd. 8, 43-50.
- Pfeiffer, Friedhelm and Karsten Reuß (2008), Ungleichheit und die differentiellen Erträge frühkindlicher Bildungsinvestitionen im Lebenszyklus, in T. Apolte and A. Funcke (Eds.) *Frühkindliche Bildung und Betreuung – Reformen aus ökonomischer, pädagogischer und psychologischer Perspektive*, Baden-Baden, Nomos, 2008, 25-43.
- Pitzer, M., Esser, G., Schmidt, M.H. & Laucht, M. (2007). Temperament in the developmental course – a longitudinal comparison of NYLS-derived dimensions with the Junior Temperament and Character Inventory. *Comprehensive Psychiatry*, 48, 572-582.

- Rammstedt, Beatrice und Jürgen Schupp (2008): Personality Similarities in Couples - Only the congruent survive - personality similarities in couples. In: *Personality and Individual Differences*, 45, 533-535 (doi:10.1016/j.paid.2008.06.007).
- Schmid, Brigitte und Manfred Laucht, (2008). Bedingungsfaktoren eines frühen Erstkonsumalters von Tabak. *Kindheit und Entwicklung*, 17, 14-21.
- Schumann G, Johann M, Frank J, Preuss U, Dahmen N, Laucht M, Rietschel M, Rujescu D, Lourdasamy A, Clarke T, Krause K, Dyer A, Depner M, Wellek S, Treutlein J, Szegedi A, Giegling I, Cichon S, Blomeyer D, Heinz A, Heath S, Lathrop M, Wodarz N, Soyka M, Spanagel R & Mann K (2008) Systematic analysis of glutamatergic neurotransmission genes in alcohol dependence and adolescent risky drinking behaviour. *Archives of General Psychiatry*, 65, 826-838
- Schupp, Jürgen, Sabrina Herrmann, Peter Jaensch, Frieder R. Lang (2008): Erfassung kognitiver Leistungspotentiale Erwachsener im Sozio-oekonomischen Panel (SOEP). DIW-Data Documentation No. 32, Berlin: DIW Berlin.
- Schupp, Jürgen, Sabrina Herrmann, Peter Jaensch, Frieder R. Lang (2008), *Erfassung kognitiver Leistungspotentiale Erwachsener im Sozio-oekonomischen Panel (SOEP)*. DIW-Data Documentation No. 32, Berlin: DIW Berlin.
- Schweiger Gallo, I., & Gollwitzer, P. M. (2007). Implementation intentions: A look back at fifteen years of progress. *Psicothema*, 19, 37-42.
- Schweiger Gallo, I., & Gollwitzer, P. M. (2007). Implementation intentions: Control of fear despite cognitive load. *Psicothema*, 19, 280-285.
- Schweiger Gallo, I., Keil, A., McCulloch, K. C., Rockstroh, B., & Gollwitzer, P. M. (in press). Strategic automation of emotion control. *Journal of Personality and Social Psychology*.
- Stadler, G., Oettingen, G., & Gollwitzer, P. M. (in press). Effects of a self-regulation intervention on women's physical activity. *Journal of Preventive Medicine*.
- Trötschel, R., & Gollwitzer, P. M. (2007). Implementation intentions and the willful pursuit of prosocial goals in negotiations. *Journal of Experimental Social Psychology*, 43, 579-598.
- Zimmermann US, Blomeyer D, Laucht M, Mann K (2007), How gene-stress-behavior interactions can promote adolescent alcohol use: The roles of predrinking allostatic load and childhood behavior disorders. *Pharmacology, Biochemistry, and Behavior*. 86, 246-262.

## 4. Mobility / Projects

Anger, Silke, Research stay at the Economics Department of the University of Chicago, July 2008, Research stay at the Scottish Institute for Research in Economics (SIRE) at the University of Edinburgh, October 2008.

Coneus, Katja, Research stay at the SOEP, Berlin, December 2007.

Pinger, Pia, Research stay at the ERC University of Chicago, September 12 – December 12, 2008.

Mühlenweg, Andrea, *Education Economic Measures for the National Educational Panel Study* (NEPS), August to December 2008, funded by the Leibniz University Hannover and the Federal Ministry of Education and Research. In this new project, we support the development of specific questions which will be included in the questionnaire of the "National Education Panel Study" (NEPS). The focus of these questions is on topics which are central in educational economists. For instance, one interest is in investigating the returns to education based on "natural experiments" in the German education system.

## 5. Conferences, Workshops

Public discussion often focuses on the shortcomings in educational institutions and the spotlight has been particularly trained on the German school system. Recent discussion in the social sciences (led by the Nobel Prize laureate in economics, James J. Heckman) emphasises deficits in noncognitive skills (such as motivation, persistence, self-regulation and social integration) alongside problems related to the formation of cognitive skills (e.g. mathematical skills, memory capacity). Incomplete skill formation can result from poverty, physical violence or neglect in early childhood, as well as school failure, unemployment and social change. In this conference we discussed theories and research methods from different disciplines in order to study noncognitive skills in the modern economy.

- Inaugural Conference Non-cognitive Skills: Acquisition and Economic Consequences, Centre for European Economic Research (ZEW) , Mannheim, Germany, May, 15 – May, 17 2008

Thursday, May 15	
4:00 – 5:00 p.m.	Registration at the ZEW, Coffee
5:00 – 6:30 p.m.	<b>Welcome Address and Keynote Lecture</b>
	Welcome Address and Introduction: <b>Wolfgang Franz</b>
	Keynote Lecture: <b>James J. Heckman</b> Non-cognitive skills: Acquisition and economic consequences
7:00 p.m.	Dinner at EURO Bistro, ZEW
Friday, May 16	
	Session 1, Chair: <b>Winfried Pohlmeier</b>
9:00 – 9:30 a.m.	<b>Matthias Kliegel</b> The realization of delayed intentions - Developmental trends and underlying mechanisms
9:30 – 10:00 a.m.	<b>Angela L. Duckworth</b> Self-control, IQ, and academic achievement in adolescents
10:00 – 10:30 a.m.	<b>Anja Achtziger</b> / Ute Bayer / Peter M. Gollwitzer Self-regulation skills and achievement in university students
10:30 – 11:00 a.m.	Coffee Break
	Session 2, Chair: <b>Jo Blanden</b>
11:00 – 11:30 a.m.	Seong Hyeok Moon / <b>Rodrigo Pinto</b> Cognitive and noncognitive effects of early childhood intervention: the case of Perry Program
11:30 – 12:00 a.m.	Dorothea Blomeyer / <b>Katja Coneus</b> / Friedhelm Pfeiffer / Manfred Laucht Initial conditions, cognitive and noncognitive skill formation and school outcomes
12:00 – 12:30 p.m.	<b>Ute Bayer</b> / Anja Achtziger / Peter Gollwitzer Stress and self-regulation in freshman at the University of Konstanz
12:30 – 1:30 p.m.	Lunch Break at the ZEW



	Session 3, Chair: <b>Holger Bonin</b>
1:30 – 2:00 p.m.	<b>Winfried Pohlmeier and Laura Wichert</b> Noncognitive skills and female labour force participation
2:00 – 2:30 p.m.	<b>Emma Tominey</b> Test score gaps and non-cognitive skills: Testing for cross-country regularities
2:30 – 3:00 p.m.	<b>Silke Anger</b> Effects of cognitive and non-cognitive skills on labour market outcomes
3:00 – 4:30 p.m.	Coffee Break, option to visit Mannheim castle & museum
	Session 4, Chair: <b>Andrea Mühlenweg</b>
4:30 – 5:00 p.m.	<b>Verena Michalski</b> / Anja Achtziger / Peter M. Gollwitzer: The effects of simple plans under conditions of induced stress
5:00 – 5:30 p.m.	<b>C. Katharina Spieß</b> First pre-test evidence of the new SOEP childhood survey
5:30 – 6:00 p.m.	<b>Remi Piatek</b> Measuring the impact of noncognitive skills by structural equation mixture models
6:00 – 6:30 p.m.	<b>Dorothea Blomeyer</b> Childhood temperament: Assessment and findings from the Mannheim Study of Children at Risk
7:30 p.m.	Dinner, Delta Park Hotel in Mannheim
<b>Saturday, May 17</b>	
	Session 5, Chair: <b>Winfried Pohlmeier</b>
9:00 – 9:30 a.m.	<b>Jürgen Schupp</b> Effects of fine arts' competencies on educational outcomes
9:30 – 10:00 a.m.	<b>Richard Layard</b> / Davic Clark / Martin Knapp / Guy Mayraz Cost-benefit analysis of psychological therapy
10:00 – 10:30 a.m.	<b>Manfred Laucht</b> Longitudinal research into child development from birth to adolescence: Findings from the Mannheim Study of Children at Risk
10:30 – 11:00 a.m.	<b>Liam Delaney</b> Heart rate variability, bio-markers and non-cognitive skills: Preliminary evidence from a day reconstruction study
11:00 – 11:30 a.m.	Coffee Break
11:30 – 1:00 p.m.	Keynote Lecture, Goodbye
	Keynote Lecture: <b>Peter M. Gollwitzer</b> The power of planning: Effective self-regulation of goal striving <b>Friedhelm Pfeiffer</b> Farewell until our next conference at the University of Konstanz, March 19 - 21 2009
1:00 – 2:00 p.m.	Coffee and Lunch Break at the ZEW
2:00 p.m.	Excursion to Heidelberg (optional)

- **Summerschool on Self-Regulation (organized by Anja Achtziger, Research group "Limits of Intentionality", July 2007, Konstanz)**

## **Pakt für Forschung und Innovation 2008**

### **Proposal to the Senate Committee Competition of the Leibniz Association (SAW)**

#### **Proposal for a Research Network**

#### **„Non-Cognitive Skills: Acquisition and Economic Consequences“**

##### **Applicant:**

**Centre for European Economic Research (ZEW)**

##### **Co-operation partners from the Leibniz Association:**

German Socio-Economic Panel (SOEP) at DIW Berlin

##### **Co-operation partners from other research institutes:**

Centre for the Economics of Education (CEE), London School of Economics;  
Centre for Quantitative Methods and Survey Research (CQMS) &  
Centre for Research on Intentions and Intentionality (CRII), University of Constance  
Economics Research Center (ERC), University of Chicago;  
Central Institute of Mental Health (ZI), Mannheim

##### **Other co-operation partners:**

Association of the metal and electric industry, SÜDWESTMETALL

Mannheim, 29. September 2006

## **Research Needs and Goals**

Public discussion often focuses on the shortcomings in educational institutions and recently the spotlight has been particularly trained on the German school system. Recent discussion in the social sciences (led by the Nobel Prize laureate in economics, James J. Heckman) emphasises deficits in non-cognitive skills (such as motivation, persistence, self-regulation and social integration) alongside problems in the formation of cognitive skills (e.g. mathematical skills, memory capacity). Limited cognitive and non-cognitive skills can result from poverty, physical violence or neglect in early childhood, as well as school failure, unemployment and social change. In light of the perceived importance of non-cognitive skills as part of human capital some commentators are beginning to question whether increased resources should be devoted to helping children develop self-regulation, the capacity of setting and achieving goals and the formation of social skills.

The proposed network connects several disciplines from the social sciences: the economics of education; labor economics; motivational and social psychology; social and motivational neurosciences and econometrics. The aim is to enhance our understanding of skill formation in knowledge-based economies. In particular we want to focus on non-cognitive skills, as in our opinion there is insufficient research in this area. On the one hand skill formation is a central research topic in almost all social sciences and its importance for school and labor market outcomes is usually not contested. On the other hand it is often referred to theoretically and the research and data across different disciplines is rarely brought together.

As non-cognitive skill formation continues from birth until old-age, and feedback effects between labor market, school, family and peer group are important for the individual development, the lack of co-operation and exchange in research is especially unsatisfactory. The co-operation of economic and psychological expertise of leading European research institutions (Centre for the Economics of Education at LSE London, German Socio-Economic Panel Berlin, Centre for European Economic Research Mannheim, Institute for Mental Health Mannheim, the Universities of Constance and Mannheim), especially the research group of James Heckman at the Economic Research Center Chicago and last but not least the Baden-Württemberg employer association Südwestmetall including its educational institutions support the direct practical relevance of the activities of the network.

Complementarities which occur due to interrelated formation of cognitive and non-cognitive skills in the life cycle are not fully taken into account by the traditional economics of education research. This research mainly refers to goal-oriented learned knowledge and a significant effort to fill existing research gaps is necessary. On the one hand, optimal investment strategies in pre-school age have not been sufficiently explored by economists. On the other hand, economic investment aspects are not often taken into account in psychological research approaches. Furthermore existing psychological research in non-cognitive skill formation is highly concentrated on children with disorders such as mental disabilities, speech disorders, autism, and so on. The determinants of non-cognitive skills of children without a concrete disorder are much less explored. For all these reasons we see an urgent need for research into non-cognitive skills.

The proposed network will deal with the analysis of non-cognitive skill formation and its economic consequences. We will focus on individuals from childhood to around ten years after graduation from school or vocational training. All institutions of the research network are working with theoretically sound empirical models and methods (representative panels, representative experiments and laboratory experiments, econometrics, simulations). The objective is to compound psychological and economic data and research to forward the international research network. We would like to find answers to the urgent questions of the integration of adolescents, the accumulation of their human capital and whether the priorities in public educational spending are sound.

The following research questions concerning content and methods summarize the research needs and research objectives (milestones, M) of the proposed network.

- M1:** Multi- and interdisciplinary theoretical analyses of non-cognitive skill formation during the life cycle and their economic consequences. What are the important supporting factors? Are there sensitive stages and influences?
- M2:** Analysis of methods to measure non-cognitive skills and their acquisition. Results are obtained by psychological experiments, micro-econometric analyses of panel data (Germany: German Socio-Economic Panel (SOEP) and the Mannheim Study of Children at Risk, USA: National Longitudinal Survey of Youth (NLSY), UK: National Child Development Study (NCDS), British Cohort Study (BCS) and Millennium Cohort Study (MCS)) and additional simulation models. How can representative surveys, especially the GSOEP be improved to enhance our understanding of non-cognitive skills and the economic importance?
- M3:** Consequences of non-cognitive skills for the formation of cognitive skills, school success (type of school and performance measures) and the transition into working life (wage level and duration of employment).
- M4:** What is the economic and psychological benefit from investments in non-cognitive skills dependent on child age and existing cognitive skills?
- M5:** What are the main important causes for sub-optimal investments in non-cognitive skills in Germany and internationally (compared to the United States and the United Kingdom for example)? What is the impact of low education of the parents, unemployment or increasing wage inequalities for example?
- M6:** What measures support non-cognitive skills and what will be the consequences for labor market and education policy?

## **Work program: structure und organisation of the network**

The choice of the network partners from different scientific disciplines is aimed at a close relationship of theoretical and empirical analysis, of academic and non-university research and practical application. Nearly 40 experts from science and practical application in seven research institutions and from Südwestmetall are participating in the network. With the proposed network we would like to initiate new research projects in the field of non-cognitive skill formation and its economic consequences which are not possible without the proposed network. Dynamic growth of the network is guaranteed by the existing research capacities and structures of the network.

More precisely, the following researches and institutions will contribute to the network. Their disciplines and projected research contributions are shortly presented:

- **Anja Achtziger, Peter Gollwitzer**, *Centre for Research on Intentions and Intentionality (CRII)* DFG – Research Group „Limits of Intentionality“, motivational psychology and social psychology, social and motivational neurosciences, University of Constance. Anja Achtziger and Peter Gollwitzer plan to design experiments which are implemented with the help of post-graduates, and which are suitable to explore the development of motivation and self-regulation in various age groups of students. Furthermore they are intended to estimate the effects of interventions, which target the stimulation of motivation and self-regulation of students. The graduate-students Verena Haller and Alexander Jaudas from the Research Group „Limits of Intentionality“ (financed by the German Research Foundation, DFG) and the “Centre for Intentionality” of the department for Psychology at the University of Constance will participate in the proposed network. For the two of them no financing is requested from the Leibniz Association.
- **Jo Blanden, Pedro Carneiro, Stephen Machin**, n.n. *Centre for the Economics of Education (CEE)*, London, Research in Education and Innovation, Econometrics. The group of international top researchers at the London School of Economics (LSE) plans to analyze the determinants and consequences of non-cognitive skills in the UK. In order to do this they can draw on several longitudinal datasets that include extensive information on noncognitive skills in childhood. These

include the National Child Development Study (NCDS) cohort born in 1958, the British Cohort Study born in 1970 and the new Millennium Cohort Study of children growing up in this decade.

- **James Heckman, Jora Stixrud, Sergio Urzua**, n.n. *Economics Research Center (ERC)* University of Chicago. Research in Education, Econometrics of Evaluation and Intervention research. The research group of James J. Heckman participates in the proposed network and plans to contribute basic theoretical models on the formation of non-cognitive skills (“skill multiplier”, “self-productivity” of skill formation, etc.) and its consequences for human capital during the life cycle. Furthermore this research group plans to do microeconomic analysis of panel data, the National Longitudinal Study for the Youth (NLYS) data for the United States, to empirically assess causes and consequences of non-cognitive skills.
- **Thomas Hinz, Winfried Pohlmeier, Rainer Schnell**, *Centre for Quantitative Methods and Survey Research (CQMS)*, University of Constance: Social Sciences, Educational Research, Labor Economics, Econometrics and Survey Research. The **CQMS** plans the development of econometric models to empirically estimate the effectiveness of educational investments with heterogeneous abilities, using different data such as PISA and SOEP. Rainer Schnell is – together with Gert G. Wagner – in charge of the DFG Priority Programme „Survey Methodology“ which tests newly designed survey forms, methods, and contents. Furthermore the graduate students Anton Flossmann, Remi Piatek, Derya Uysal and Laura Wichert plan their participation in the proposed network. They are financed by the graduate school of the faculty of Economics and Business Administration and the DFG Research Group “Heterogeneous Labor – Positive and Normative Aspects of the Skill Structure of Labor”, which is located at the University of Constance and the ZEW. For those students no financing from the Leibniz Association is needed. The graduate program of the ZEW (ZEWDocnet) and University of Constance, faculty of Economics and Business Administration, already cooperate to support post graduate education, academic exchange and to promote young researchers. The proposed network will strongly benefit from this cooperation and will significantly enhance its impact.
- **Stefan Küpper, Johannes Krumme, Gerhard Selzer**, *Association of the metal and electric industry - Südwestmetall*. In this cooperation, Südwestmetall and ZEW plan to scientifically assess a program in vocational training of students from disadvantaged environments. Südwestmetall is going to endeavour after participation and cooperation of the Ministry of Education in Baden-Württemberg. One aim of Südwestmetall’s program „START 2000 Plus“ is to improve educational maturity of underprivileged adolescents by supporting their motivation and self regulation. Südwestmetall does not need financing from the Leibniz Association. On the contrary Südwestmetall supports the ZEW and the network with 150.000€ for the years 2008-2010 for scientific evaluation and provides additional financing to compile the data from its educational associates.
- **C. Katharina Spieß, Jürgen Schupp, Gert G. Wagner**, *German Socio-Economic Panel*, Berlin (**SOEP**) and professors at Free University respectively Technical University Berlin. The SOEP is the only representative panel study for educational and labor market research in Germany. It can be used for microeconomic analysis of particular non-cognitive skills (e.g. locus of control, reciprocity, risk aversion, time preferences). The SOEP research group, which closely cooperates with the universities in Berlin, perceived the foreseeable research demand in the field of personality and self-regulation and incorporated psychological questions in the yearly surveys (e.g. on the Big Five personality tests, on reciprocity, locus of control). Additionally more adolescents are surveyed and in 2002 a yearly mother-child survey started. In each year the network is planned for, the data stock is growing by one additional wave. The goal of the cooperation with the SOEP is the analysis of the existing survey results and the further development of the psychological survey instruments at the University of Constance. How can results be transferred, for example from surveys of the ZI, which are based on epidemiological methods or those from the psychological experiments at the University of Constance or newer versions of the “Thematic Apperception Test (TAT)”, to improve the SOEP? In this point SOEP, CQMS and ZEW see considerable research needs for Germany, which we would like to meet with the experts from experimental psychology and the survey experts. This methodological research is embedded in the DFG Priority Programme „Survey Methodology“ for which CQMS,

SOEP and the University of Bremen successfully applied (Engel, Schnell and Wagner). Annalena Dunkelberg (psychology and statistics) is going to participate in the proposed network as a doctoral student (without financing by the Leibniz Association).

- **Dorothea Blomeyer, Manfred Laucht**, *Central Institute of Mental Health (ZI)*, Mannheim. The ZI contributes to the proposed network by bringing in its long-time research competence in the field of origin, progression and consequences of psychological disorders of children and adolescents using epidemiological methods. Furthermore they bring in their analytical competence to identify the biological, psychological and social conditioning factors using methods from neurosciences. ZEW and ZI would like promote their cooperation in the network to analyze the importance of early childhood for educational outcomes. In the research project “Mannheim Study of Children at Risk” (Mannheimer Risikokinderstudie) which has been financed by the German Research Foundation (DFG) and the Federal Ministry of Education and Research a cohort of 384 children with different development and environmental risks is followed from birth up to the age of 20 (in seven waves, the actual wave is 2006). ZEW and ZI start their cooperation in November 2006 to prepare the data of the “Mannheim Study of Children at Risk” for this project.
- **Katja Coneus, Wolfgang Franz, Johannes Gernandt, Kathrin Göggel, Grit Mühler, Friedhelm Pfeiffer, Karsten Reuß, Maresa Sprietsma**, *Centre for European Economic Research (ZEW)*, Mannheim. The ZEW contributes to the network with its long-time experience in labor market research and educational research (e.g. based on a long-time experience in exploiting the SOEP), in scientific counselling and in the formation of international and interdisciplinary research networks. The proposed network benefits from the long-time cooperation of ZEW researchers with the CEE London, the SOEP Berlin, the Nobel Prize Laureate James J. Heckman, the University of Constance, and the proximity to the internationally well-known ZI in mental health research, located in Mannheim. Further ZEW researchers who plan to participate in the network are Andreas Ammermüller as well as Anja Kuckulenz and Michael Maier as members of the DFG research group “Heterogeneous Labor – Positive and Normative Aspects of the Skill Structure of Labor”, a joint project ZEW University of Constance.

Sustainable research possibilities are provided by the combination of the worldwide leading position of the psychologists of the University of Constance, the internationally top data quality of the German Socio-Economic Panel, the high quality scientific research concerning skill formation in the life cycle of James J. Heckman’s and the Central Institute of Mental Health and the strengths of CEE and ZEW in the field of empirical and institutional labor market and educational research. This intensifies the dialogue between psychology, economics and practical application within the framework of an international network and stimulates future research.

Further structural characteristics of the proposed network are:

- The network is designed as an **open network**, open also to external researchers.<sup>1</sup> Furthermore we want to integrate young researchers and support the **exchange** of researchers to promote **doctoral** and **post-doctoral qualification**. Graduate students are supervised by professors at distinctive locations. We would like to give them the possibility to start long-term co-operations. For example students from the graduate school of the University of Constance will do research at ZEW, CEE and the University of Mannheim and vice versa.
- Research results are going to be exchanged by regular guest lectures and network conferences. Four conferences are planned with different priorities: **K1** Mannheim (ZEW/ZI: disciplines, theories, methods), **K2**: University of Constance (psychology, experiments, life cycle), **K3**: Berlin (SOEP: measurement methods in representative panel surveys) and **K4**: London (CEE: economics, econometrics, consequences).

---

<sup>1</sup> The ZEW is looking for future co-operations. For example we discussed collaboration with the Knowledge Research Media Centre (KRMC) in Tübingen. This Leibniz Institute is very open to co-operation in the field of education but does not want to participate in the network as non-cognitive skills are not part of the core research fields of the institute.

- The activities should contribute independently to support academic exchange and will be evaluated internally. The chairman of the planned network committee will be Professor Dr. Dr. h.c. mult. Wolfgang Franz, president of the ZEW.
- The ZEW in its function as initiator of the network will create new positions from the year 2008 on. Further jobs and their facilities will also be provided by the participating institutions as already mentioned above.

**Summary of institutions and researchers:**

**ERC Chicago**, Flavio Cunha, James Heckman\*, Jora Stixrud, Sergio Urzua

**CEE London**,  
Jo Blanden, Pedro Carneiro, Stephen Machin\*, n.n.

**CRII Constance, Motivations- and Socialpsychology, motivational Neuroscience** Anja Achtziger, Peter M. Gollwitzer\*, Verena Haller, Alexander Jaudas

**CQMS Constance**, Thomas Hinz, Winfried Pohlmeier\*, Rainer Schnell, Anton Flossmann, Remi Piatek, Derya Uysal, Laura Wichert

**Südwestmetall**, Stefan Küpper\*, Johannes Krumme, Gerhard Selzer

**ZI Mannheim**; Dorothea Blomeyer, Manfred Laucht\*

**SOEP Berlin**

C. Katharina Spieß, Jürgen Schupp, Gert G. Wagner\*, Annalena Dunkelberg

**ZEW Mannheim**;

*Universität Mannheim*;

Andreas Ammermüller, Katja Coneus, Wolfgang Franz\*, Johannes Gernandt, Kathrin Göggel, Michael Maier, Friedhelm Pfeiffer<sup>§</sup>, Maresa Sprietsma

\* signers of the co-operation partners

<sup>§</sup> coordination, person in charge

**Milestones (M#: milestone, K#: network conference)**

The research results will be publicly discussed in the joint research conferences, in separate or joint workshops (**W**) and they will be made available in the discussion paper series of the particular institutes and universities. They will be submitted to relevant scientific journals. Furthermore we plan to publish central new research results in a volume of the „ZEW Economic Studies.“

<b>Non-cognitive skills</b>	May 2008	October 2008	May 2009	October 2009	May 2010	December 2010
<b>M1</b>	<b>K1</b>	<b>W</b>	<b>K2</b>	<b>K3</b>	<b>S</b>	<b>K4</b>
<b>M2</b>	<b>K1</b>	<b>W</b>	<b>K2</b>	<b>K3</b>	<b>S</b>	
<b>M3</b>		<b>W</b>	<b>K2</b>		<b>S</b>	
<b>M4</b>		<b>W</b>		<b>K3</b>	<b>S</b>	<b>K4</b>
<b>M5</b>	<b>K1</b>	<b>W</b>		<b>K3</b>	<b>S</b>	<b>K4</b>
<b>M6</b>	<b>K1</b>	<b>W</b>			<b>S</b>	<b>K4</b>

## Short review of existing research and own previous work

Human skill formation is a fundamental research topic in nearly all social sciences. Education and a good educational system do have positive effects for the integration into the labor market, the wage level and the professional career (summarizing Franz, 2006). Econometric models of skill formation and labor supply consider the heterogeneity of individual skills but often neglect the origin and formation of this heterogeneity (for one exception regarding self-regulation see Benabou and Tirole, 2004). Research results from neurobiology and developmental psychology show that very early experiences do have long-range consequences for school and labor market success (among others: Knudsen, Heckman et al., 2006, Laucht et al., 2005). Children, who are exposed to a stimulating family environment, seem better able to integrate and be more successful in school and in their professional career. Children from disadvantaged environments grow up with lower investments in their skills often experience further failures (e.g. due to negative self-efficacy when children are told at home that “there is no use” to try hard because they “won’t go up the social ladder anyway”). The role of non-cognitive skills in hindering social mobility is discussed in Blanden et al (2006), where 20 percent of the relationship between parental income and children’s later earnings is explained by the connection between parental background and the level of non-cognitive skills.

The development of intelligence (cognitive skills) has been researched intensively. Longitudinal studies imply that differences in intelligence measured around the age of 10 are highly consistent over the life cycle. In order for an individual to be able to exploit his cognitive skills, motivation and self-regulation, non-cognitive skills are necessary to some extent (among others Ahtziger und Gollwitzer, 2006). How non-cognitive skills are acquired is the topic of the proposed network. For the latest developments in the survey of non-cognitive skills in a panel context see Schupp and Wagner (2006), for economic consequences of reciprocity see Brown, Fehr and Falk (2004). While unemployment and its economic reasons in Germany (see among others Franz and Pfeiffer 2006) and the long-time individual effects of youth unemployment have been widely analyzed by the applicants and at the ZEW (see among others Franz 2006, Franz et al. 1999), non-cognitive skill acquisition in early childhood and its economic consequences is the planned research topic in this proposed international and interdisciplinary research network.

- Ahtziger, A., P. Gollwitzer** (2006), Motivation und Volition im Handlungsverlauf. In J. Heckhausen, H. Heckhausen (Hrsg.), *Motivation und Handeln*. Berlin: Springer Verlag.
- Brown, M., A. Falk, E. Fehr** (2004), Relational Contracts and the Nature of Market Interactions, *Econometrica* 72, 747-780.
- Benabou, R.J.M., J. Tirole** (2004), Willpower and Personal Rules, *Journal of Political Economy* 112 (4), 848-887.
- Blanden, J., L. Macmillan, P. Gregg** (2006) ‘Explaining Intergenerational Mobility: Noncognitive skills, ability and education’ *Centre for the Economics of Education Discussion Paper*, forthcoming.
- Franz, W** (2006) *Arbeitsmarktökonomik*, 6. Aufl., Berlin, Springer-Verlag.
- Franz, W., J. Inkmann, W. Pohlmeier, V. Zimmermann** (1999), Young and Out in Germany: On the Youths’ Chances of Labor Market Entrance in Germany, in: D. Blanchflower, R. Freeman (Eds.), *Youth Employment and Joblessness in Advanced Countries*, Chicago, (University Press).
- Franz, W, F. Pfeiffer** (2006), Reasons for Wage Rigidity in Germany, *LABOUR* 20, 255-284.
- Knudsen, E. J., J. J. Heckman, J. L. Cameron, J. P. Shonkoff** (2006), Economic, Neurobiological and Behavioral Perspectives on Building America’s Future Workforce, *IZA Discussion Paper* 2190.
- Laucht, M. (2005)**, Die langfristigen Folgen früherer Entwicklungsrisiken: Ergebnisse der Mannheimer Längsschnittsstudie zu Risiko- und Schutzfaktoren, in Arnoldy, P. und Traub, B. (Hrsg.) *Sprachentwicklungsstörungen früh erkennen und behandeln*. Karlsruhe: Loeper, 169-183.
- Schupp, J. Wagner G. G.** (2006), New Concepts and Questions in the German Socio-Economic Panel Study (SOEP), DIW Berlin Data Documentation. Berlin.