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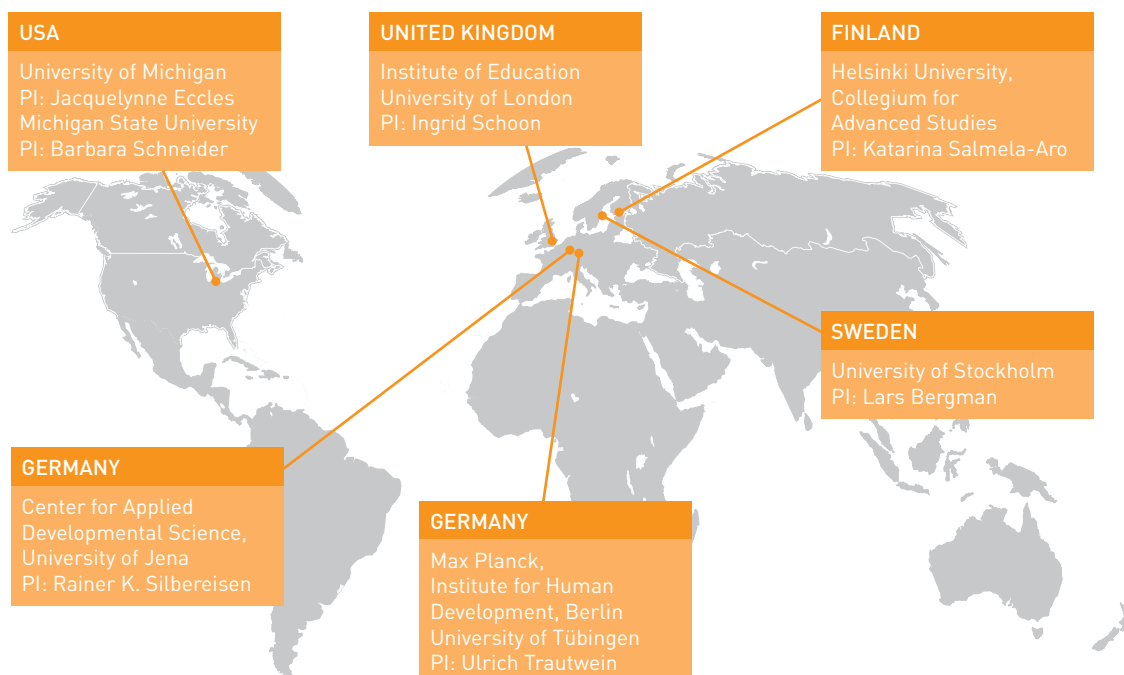
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# INTRODUCTION

The major aim of the PATHWAYS Post-Doctoral Fellowship Programme is to stimulate innovative, interdisciplinary, and comparative research of productive youth development. Participating institutions include the Institute of Education in London, the Universities of Michigan and Michigan State, Stockholm, Helsinki, Jena, Tübingen and the Max Planck Institute for Human Development in Berlin. The mission of the programme is to promote the next generation of researchers and facilitate a better understanding and discourse with different stake holders about how to equip young people for mastering the challenges of growing up in a changing social context.

PATHWAYS Fellows in collaboration with their mentors investigate the antecedents, processes, and long-term outcomes of youth transitions, as well as the factors and processes promoting human competences, especially among young people deemed to be at-risk. Training and mentoring is provided to the Fellows to enhance understanding of diverse approaches to the study of productive youth development and to engage in constructive debates with colleagues from different disciplines. The Programme helps to foster international and interdisciplinary research and exchange of ideas. It enables the Fellows to gain up-to-date skills for addressing research and policy questions that require combined approaches and a synergy of ideas.

A 'Virtual Institute Approach' has been adopted, not limiting activities to one physical location, but pooling the expertise of several partner institutions that are connected by shared research interests, projects and existing collaborations. The administrative core is based at the Institute of Education but many of PATHWAYS' activities occur at the participating sites. There are regular joint workshops and conferences, bringing together scholars from around the globe, facilitating international networking and exchange.



**Figure 1:**  
PATHWAYS network:  
Countries,  
Institutions, PIs

# PATHWAYS TO ADULTHOOD: Programme Activities

## PATHWAYS TO ADULTHOOD: Programme Activities

### Programme Activities during 2012/13

In October 2012, Phase II of the PATHWAYS programme started, marked by the intake of a new cohort of Fellows. The 'newcomers' benefited from the already existing infrastructure and were mentored both by the Principal Investigators and the already existing cohort of Fellows. Having overlapping cohorts of already experienced and fully engaged Fellows and 'newcomers' with fresh ideas and research plans created a stimulating and invigorating research environment. During 2012/13 we held two international workshops, one in Windsor Great Park near London and one at the University of Tübingen. Both workshops were highly successful and initiated a number of collaborative projects as well as publications by the Fellows (in collaboration with the Principal Investigators as well as sole authorship).

In addition, a number of method workshops were held at the Institute of Education, the University of Tübingen (including a highly successful media workshop), and at the University of Helsinki. Furthermore, two issues of the PATHFINDER, our newsletter, were published: one on career aspirations and one on entrepreneurship.

The current group of PATHWAYS Fellows have demonstrated outstanding productivity: 18 articles have been published in learned journals (including high impact publications in American Educational Research, Developmental Psychology, Journal of Research in Personality, Learning and Individual Differences, and Social Forces), 17 are currently in press, and 3 are accepted for publication. Furthermore, 31 papers are currently in preparation and 17 are under review.

The Team successfully edited 3 special issues in high impact journals:

- Developmental Psychology: Special issue on Career development, led by Jacque Eccles and Ingrid Schoon
- International Journal of Developmental Science: Special issue on Entrepreneurial Development, led by Martin Obschonka and Rainer Silbereisen
- European Psychologist: Special issue on school motivation, led by Katariina Salmela-Aro and Ulrich Trautwein

The Fellows gave 23 presentations at national and international research meetings and have organised symposia at the 2013 conference of the Society for Research on Child Development (SRCD) in Seattle, the Annual meeting of the American Educational Research Association (AERA) in San Francisco, and the biannual meeting of the European Association of Developmental Psychology (EADP) in Lausanne.

# PATHWAYS TO ADULTHOOD: Programme Activities

## Public Recognition

Three Fellows received awards: John Jerrim (ESRC Early career impact award, prize for the best presentation at the British Educational Research Association), Heta Tuominen-Soini (Doctoral Dissertation Award: best dissertation at the University of Helsinki in 2012), and Anna-Lena Dicke (travel award to attend the AERA conference). Four Fellows were successful in gaining independent research funding in a highly competitive research environment: Elizabeth Covay (MET early career research grant from the National Academy of Education), John Jerrim (British Academy), Sointu Leikas and Jaana Viljaranta (Academy of Finland).

The work of the Fellows featured strongly in the national and international media. For example Martin Obschonka's research was picked up by *der Spiegel*, *der Stern*, *die Welt*, *Popular Science*, *Psychology Today* and the BBC. John Jerrim's work featured on the BBC website, in the *Guardian*, the *Telegraph*, the *Financial Times*, the *Independent*, the *Sun*, the *New Statesman* and the *Huffington Post*. Janna Viljaranta's work was reported in *Science Daily*, *Family Ethics* and *Female Network*. In addition a number of Fellows (John Jerrim, Sointu Leikas, Martin Obschonka, Heta Tuominen-Soini) gave interviews to the local press.

Our alumni were successful in finding new career opportunities, and will continue to be engaged in activities of the PATHWAYS program. Hakan Anderson accepted a position with the Swedish Higher Education Authority and will provide evidence to the Ministry of Education and other relevant sectors of society. Julia Dietrich and Martin Obschonka are pursuing their Habilitation with the aim to apply for full professorial positions. Kathryn Duckworth has taken on the role as Co-Investigator for the prestigious Longitudinal Study of Young People in England (LSYPE). Jaime Puccioni has taken up the position as Assistant Professor at the University of Albany, State University New York (SUNY) and Ming-Te Wang is now Assistant Professor in the Applied Developmental Psychology Program at the University of Pittsburgh.

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Anna Katyn Chmielewski  
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## Alumni 27

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Katariina Salmela-Aro  
Barbara Schneider  
Ingrid Schoon  
Rainer Silbereisen  
Ulrich Trautwein



## Post-doctoral Fellows

### Meeta Banerjee



I am a Research Fellow at the Research Center for Group Dynamics at the Institute for Social Research at the University of Michigan, where I work with Prof. Jacquelynne Eccles in the Achievement Research Lab. I joined the PATHWAYS programme in September 2012.

I have a PhD from the Ecological-Community Psychology programme at Michigan State University and a Masters in Social Work in Interpersonal Practice-Mental Health from the University of Michigan, with a minor in Community Organizations. I also have a BA in Psychology from the University of Michigan.

#### Research Plan

Parents are tasked with raising their children in a world composed of many cultures and ethnicities. Youth are exposed to the attitudes, beliefs and values of other individuals. Some of their experiences can be positive, some may not be. My research investigates how, when and why parents transmit beliefs, values and attitudes about their own culture and heritage to their children, which is known as racial-ethnic socialization. In the United States, research has shown that in African American families, parents may participate in socialization behaviours and messages as a way to help build their children's positive sense of self. I examine how these socialization practices relate to contextual factors (e.g., discrimination, neighbourhoods, violence) and youth outcomes regarding academic achievement and psychological well-being in ethnic minority families.

#### Publications

- Banerjee, M. and Eccles, J.S. (In preparation). Parenting styles and academic socialization as predictors of academic achievement in children.
- Banerjee, M., Malanchuk, O., Peck, S. and Eccles, J.S. (In preparation) The impact of racial discrimination and racial socialization on mental health in African Americans.
- Banerjee, M., Malanchuk, O., and Eccles, J.S. (In preparation). The neighbourhood context and its relation to racial socialization in African American families.
- Banerjee, M. (In preparation). The intersection of social class and gender in academic socialization in elementary school children.

#### Dissemination

- American Psychological Association, Honolulu, HI., August 4, 2013. *The impact of racial discrimination and racial socialization on mental health in African Americans.* (Poster presented).
- American Psychological Association, Honolulu, HI., July 31, 2013. *Parenting styles and academic socialization as predictors of academic achievement in children.* (Poster presented).



## Post-doctoral Fellows

### Anna K Chmielewski



I am a postdoctoral fellow based at Michigan State University working with Prof. Barbara Schneider at the College of Education. I joined the PATHWAYS programme in September 2012. I completed my PhD in Education and also hold an MA in Sociology from Stanford University.

My research interests lie in sociology of education, social inequality, and international education policy. I study US and cross-national trends in social and educational inequality, including the effects of national income inequality, social and educational policies, segregation, and tracking on socioeconomic gaps in academic achievement, educational attainment, and social mobility.

#### Research Plan

My research asks: Why is it that in some countries, students from wealthy families have much higher academic achievement than students from poorer families, while in other countries, this inequality is much less extreme? Is it due to differences in the way we differentiate schooling, the ways we track or stream students within schools or between schools? Is it due to income inequality or other social welfare conditions? And what are the consequences of unequal achievement? Do more unequal countries perform lower on international tests like PISA? Finally, has it always been this way: How has educational inequality changed over time around the world?

My research follows three streams, and I have several ongoing and future projects within each stream:

#### 1 International Comparisons of Tracking and Ability Grouping

I have a paper under review which is an international comparison of achievement inequality in between- and within-school tracking systems. At the secondary school level tracking (when students at the same grade level are given different, hierarchically-defined content to study) is organised in a variety of ways cross-nationally. Some countries, including the US, track within schools on a course-by-course basis, while other countries employ more explicit academic and vocational streaming, usually in separate school buildings. The paper uses PISA data and multilevel models to compare the two forms of tracking across the US and 19 other developed countries. Results indicate that course-by-course tracking is less segregated by SES than is academic/vocational streaming. Yet both forms of tracking have comparable achievement gaps between tracks. In course-by-course tracking, sizable SES disparities in achievement exist among students in the same track. But in academic/vocational streaming, SES disparities are small within tracks.

#### 2 Socioeconomic Inequality and Achievement

I am working on a project with Sean Reardon of Stanford University comparing the size of achievement gaps by household income cross-nationally. Reardon recently showed that the relationship between family income and children's academic achievement has risen substantially in recent decades in the US. In our paper, we provide an international context for these results by examining the income-achievement association in 18 other OECD countries using data from the PIRLS and PISA studies. We address two questions: First, we calculate and compare the magnitude of "income achievement gaps" across the sample of countries. Second, we investigate the association between the size of a country's income achievement gap, its income inequality, and a variety of other country characteristics that reflect social inequality and the degree of differentiation of national school systems. As income achievement gaps are measured as the standardized gap in achievement between the 90th and 10th percentiles of each country's unique income distribution, the mechanical or compositional effects of income inequality are removed from the analysis, and all findings for country characteristics reflect only contextual effects. We find considerable variation across countries in income achievement gaps. Moreover, the US income achievement gap is quite large in

comparison to this sample of countries. Our multivariate analyses show that country income achievement gaps are positively associated with national levels of income inequality, as well as rates of childhood poverty, school segregation by income, and educational differentiation or tracking. Our results suggest that broad societal inequality as well as features of the schooling system may play important roles in shaping patterns of educational inequality.

Additionally, I am working on a project with two other PATHWAYS fellows, John Jerrim and Philip Parker, examining socioeconomic inequality in access to elite colleges in the US, the UK, and Australia. We consider the relationship between a child's family background, their academic achievement in high school and access to "high status" post-secondary institutions. Drawing upon Boudon's (1974) theory of primary and secondary effects, we use recently developed analytic methods to examine socio-economic inequality in "high status" college entry across three industrialized nations (Australia, England and the US). Our results suggest that American children from working class backgrounds are much less likely to enter a high status college than their peers from more affluent homes, and that this gap is bigger in the US than other developed countries. We also find that "secondary effects" (the part of the social class gap that cannot be explained by academic achievement) are particularly large when it comes to accessing high status American colleges within the private sector.

### 3 Trends in Educational Equity and Excellence

Two of the primary goals of national education systems are educational excellence and equity. My final area of research concerns trends over time in these two outcomes and takes advantage of the long history of large-scale cross-national assessments dating back to the First International Mathematics Study (FIMS) in 1964. The third and final chapter of my dissertation, which I am currently revising for journal submission, examined whether educational equity and excellence appear to be contradictory, complementary, or unrelated. The relationship between equity, or the minimization of socioeconomic disparities in achievement, and excellence, or the average level of achievement, is a fundamental question in educational research, but the cross-national evidence on this question has been inconsistent over time. While FIMS results appeared to show a tradeoff between equity and excellence, SIMS and TIMSS research suggested a complementary relationship, and recent evidence from PISA has been mixed. This study investigates the relationship between equity and excellence more thoroughly than past literature by incorporating many years of data from 11 different cross-national assessments over 18 years. It examines not only the country-level association between equity and excellence, but also the relationship within countries over time using hierarchical growth models. Results indicate that at the country level, there is a weak negative relationship between SES achievement gaps and average level of achievement, but only when the sample is limited to wealthy countries. Within countries over time, nearly all wealthy countries have seen increases in SES achievement gaps, but there has been no systematic relationship between increases in gaps and changes in levels of achievement. Therefore, it does not appear to be the case that countries with increasing socioeconomic disparities experience lower overall levels of achievement.

I am currently working on extending this research by incorporating the earliest years of cross-national assessment data, the First and Second International Mathematics and Science Studies (FIMS, FISS, SIMS, and SISS). This will allow me to examine in more detail the major surprising secondary finding of the paper above: that SES achievement gaps have increased in nearly all wealthy countries over the past 19 years. If this holds true in the earlier waves of data, it implies that Reardon's finding of increasing socioeconomic disparities in achievement in the US over the last 40 years may be generalizable to the entire developed world.

### Publications

- Chmielewski, A.K., Dumont, H. and Trautwein, U. (In press). Tracking Effects Depend on Tracking Type: An International Comparison of Mathematics Self-Concept. *American Educational Research Journal*.
- Chmielewski, A.K. (In submission) An International Comparison of Achievement Inequality in Within- and Between-School Tracking Systems.
- Jerrim, J., Chmielewski, A.K. and Parker, P. (In preparation). Socio-economic inequality in access to elite colleges: a cross-country comparison of primary and secondary effects.
- Reardon, S. and Chmielewski, A.K. (In preparation). Patterns of Cross-National Variation in the Association Between Income and Academic Achievement.
- Chmielewski, A.K. (In preparation). Educational Quality and Equality: Complementary, Contradictory, or Unrelated?

### Dissemination

- Interamerican Development Bank, April 19, 2013, Washington, DC. *Calculating Indicators of Equity: Categorical Variables and Trends*. (Invited lecture).
- 2013 CIES Annual Meeting, March 10-15, New Orleans, LA. *Educational Excellence and Equity in International Comparison: Complementary, Contradictory, or Unrelated?* (Paper presented).

## Post-doctoral Fellows

### Elizabeth Covay



I am the Research Director for the Michigan Consortium for Educational Research at the College of Education, Michigan State University. I completed my PhD in Sociology at the University of Notre Dame in May 2010. I recently completed an IES postdoctoral fellowship in education policy and methods. I joined the PATHWAYS programme in October 2012.

I am interested in exploring the racial and social class differences in student learning experiences and how those learning experiences may help explain the racial and social class differences in achievement. I look at student experiences in multiple ways, examining differences in student course taking and the classroom instruction that students receive. My research focuses on what is going on in the classroom, since the classroom is where most of the school-related learning experiences occur and also where interventions and policies can be implemented.

#### Research Plan

My research agenda involves focusing on student inequality in access to and returns from various forms of learning opportunities. Most recently, I was awarded a Measure Effective Teaching (MET) Early Career Grant. This grant provides me with access to the MET Longitudinal Database. My project will examine the differential effects of instruction on student achievement. My research question for this grant is similar to the work that I am doing with Drs. Laura Desimone and Kristie J.R. Phillips using a nationally representative sample of US kindergarteners—the Early Childhood Longitudinal Study-Kindergarten Cohort (ECLS-K). The MET data have multiple objective measures of instruction, which will allow me to examine the type of instruction that is most/least beneficial for which students. I will examine the differential effects of instruction by student race and income group.

In addition to the papers that will result from my MET grant, I am also continuing to revise papers from my dissertation. I have received two revise and resubmits for my dissertation chapters. The first paper examines unequal achievement returns to advanced math course taking between Black and White students. The second paper examines racial differences in teacher perceptions of student ability.

My next set of papers uses the ECLS-K database and has resulted from collaborations with Drs. Laura Desimone and Kristie J.R. Phillips. There are currently three papers stemming from this research, all addressing the research questions of inequality in student access to teachers and instruction and how that instruction is related to student achievement. We have one of the three papers under review at *Sociology of Education*. We are currently preparing the other two for submission.

I have been working with Dr. Jaime Puccioni examining racial differences in student non-cognitive skills and how these differences are related to student achievement. We have a paper that was accepted for presentation at the American Sociological Association annual conference in August. Following the conference, we will incorporate the appropriate feedback and submit the paper for review.

Through my Institute for Education Sciences Fellowship at the University of Pennsylvania, I was involved in two large scale research projects. I am continuing to work on completing papers that have resulted from that research. The first paper is a qualitative analysis of a middle school science intervention, which included in-depth interviews with 14 middle school science teachers. We are in the final stages of manuscript preparation and will be submitting the paper. The second project involves a series of validation studies of the Vanderbilt Assessment for Leadership in Education. I completed the analyses for a known group and a test-retest validation study. We recently submitted the known group analyses paper to *Educational Measurement: Issues and Practice*.

## Publications

- Covay, E. (2013). Review of *Integration Interrupted: Tracking, Black Students & Acting White After Brown* by Karolyn Tyson and *Kids Don't Want to Fail: Oppositional Culture and the Black-White Achievement Gap* by Angel L. Harris. *Social Forces*. doi: 10.1093/sf/sot063
- Phillips, K.J.R., Spencer, K., Covay, E., Desimone, L. and Stuckey, D. (Under review). Can Schools Really Make a Difference? Exploring School Conditions and Processes as a Moderator of Achievement Gaps. *Sociology of Education*.
- Covay, E. (In preparation). Student Race and Teacher Perceptions of Student Ability, *Teachers College Record*.
- Covay, E. (In preparation). Racial Differences in Returns From Advanced Math Course Taking." *Social Science Research*
- Covay, E., Desimone, L. and Caines, J. (In preparation). Explaining Differential Effects of PD: The Role of Teacher Content Knowledge.
- Covay, E., Porter, A.C., Murphy, J., Goldring, E.B., Cravens, X. and Elliott, S.N. (In preparation). A Known Group Analysis Study of the Vanderbilt Assessment of Leadership in Education.
- Covay, E., Desimone, L. Phillips, K.J.R., and Spencer, K. (In preparation). A New Look at the Opportunities to Learn Gap across Race, Income, and School.
- Covay, E. (In preparation). Classroom Composition and Racial Differences in Opportunities to Learn.
- Covay, E. and Puccioni, J.L. (In preparation). Inequality in Noncognitive Skills and Cumulative Disadvantage.

## Dissemination

American Educational Research Association Annual Conference, San Francisco, CA, April 2013. A Known Group Analysis Study of the Vanderbilt Assessment of Leadership in Education (Paper presented).

The Vanderbilt Assessment of Leadership in Education (VAL-ED) provides educators with a tool for principal evaluation based on principal, teacher, and supervisor reports of principals' learning-centred leadership. In this study, we conduct a known group analysis to investigate concurrent validity of the VAL-ED. We asked superintendents to select the principals in their district who they believe in performance of their duties are in the top 20% and the bottom 20%. We ask how accurately VAL-ED scores can identify membership of the two known groups. Using a discriminant analysis, the VAL-ED places principals in the superintendent groups, on average, 70%

of the time for both elementary and secondary schools. Placement accuracy is greater for the top group than the bottom group.

Sociology of Education Association Annual Conference, Pacific Grove, CA, February 2013. *Classroom Composition and Racial Differences in Opportunities to Learn* (Presentation).

Black and white students leave high school with disparate math skills despite completing the same advanced math courses. One possible explanation is that minority students are exposed to different learning opportunities despite being in classes with the same title. Using the Mathematics Survey of the Enacted Curriculum (SEC), this study examines the relationship between how math teachers of advanced math courses organize their classroom learning environments and the racial composition of the classroom. Math teachers of classrooms with a minority racial composition spend their instructional time emphasizing different topics and instructional tasks than teachers of classrooms that have a predominately white racial composition. Racial differences continue to exist when classroom socioeconomic and achievement level are included. Students in classrooms with minority racial compositions have different learning opportunities compared to their peers in classroom with predominately white racial compositions, which may explain racial differences in returns to advanced math course taking.

## Awards

Measuring Effective Teaching (MET) Early Career Research Grant (\$25,000), ICPSR and the National Academy of Education, March 2013-March 2014

## Post-doctoral Fellows

### Anna-Lena Dicke



I am a postdoctoral researcher at the Center for Educational Science and Psychology at the University of Tübingen. I joined the PATHWAYS programme in May 2012.

My research focuses on the effects of the school environment on students' motivation and interest. In my PhD entitled "Students' Academic Interests: Influences of Academic Tracking, Curriculum and the Teacher", I investigated how structural features as well as instructional features of the classroom influence the development of students' academic interests. This included an investigation of the effects of increased instructional time as well as teacher support. I am currently involved in the "MoMa" project at the University of Tübingen – a large-scale intervention study aimed at increasing secondary school students' motivation in Mathematics.

My future research as a Fellow will continue to examine the influences of specific features of the school environment on students' interests and their general motivational development, as well as their educational aspirations. This work will be conducted in cooperation with other PATHWAYS Fellows from Finland, Germany and the US.

#### Research Plan

During my time as a PATHWAYS Fellow, I plan to extend my previous work on the influences of the school environment on students' interests and motivation. On the one hand, this will include a continuation of my work on the effects of instructional features, such as teacher's specific instructional behaviours, on students' interest and motivation. Here, I would like to expand my work by not only focussing on the effects of teacher support, but also including other relevant teacher behaviours, such as classroom management, to explore what type of instructional environment is most conducive to the positive development of students' interests and motivation.

Secondly, I am planning to continue my work on the effects of structural features of the school environment on students' interests and motivation. The main research question will be whether the way that schooling is structured in terms of the type of tracking that is practised and the type of course choices and mandatory requirements that are provided to students, has an effect on the development of students' interests and motivation. Following on from previous work, I am planning on taking a more extensive approach by integrating further relevant educational outcomes such students' achievement and their educational choices and aspirations. This approach aims at shedding further light on the underlying mechanisms determining students' educational pathways.

Taking advantage of the opportunities offered to me by the PATHWAYS programme, I plan to collaborate with several of the current PATHWAYS Fellows and Principal Investigators. I will be working with Julia Dietrich at the University of Jena to look at how certain instructional features of the classroom, such as teacher's supportive behaviour, are related to the development of students' subjective task values across time and whether these effects differ across subjects. Elizabeth Covay and I will be looking at the influence of instructional behaviours on student outcomes. I will also be working closely with Katariina Salmela-Aro, Heta Tuominen-Soini and Jaana Viljaranta at the University of Helsinki and the University of Jyväskylä. Due to our similar research foci – the development of students' engagement and motivation over time – there are manifold opportunities for collaboration.

Future research will look at the development of students' interests, subjective task value and achievement goals over time and their relationship to instructional features as well as the structural features in an international comparison using Finnish and German datasets. In general, the PATHWAYS programme and collaboration with the other members of the program will allow me to use international data to further explore whether the effects of school structure and the instructional setting are universal or whether a specific cultural influence and uniqueness needs to be taken into account.

### Publications

- Dicke, A.-L., Lüdtke, O., Trautwein, U., Nagy, G. and Nagy, N. (2012). Judging students' achievement goal orientations: Are teacher ratings accurate? *Learning and Individual Differences*. doi: 10.1016/j.lindif.2012.04.004
- Frenzel, A. C., Pekrun, R., Dicke, A.-L. and Götz, T. (2012). Beyond quantitative decline: Conceptual shifts in adolescents' development of interest in mathematics. *Developmental Psychology*. doi: 10.1037/a0026895
- Trautwein, U., Nagengast, B., Marsh, H. W., Gaspard, H., Dicke, A.-L., Lüdtke, O., et al. (2013). Expectancy-value theory revisited: From expectancy-value theory to expectancy-valueS theory? In D. M. McInerney, H. W. Marsh, R. G. Craven and F. Guay (Eds.), *Theory Driving Research: New wave perspectives on self-processes and human development* (pp. 233-249). Charlotte, NC: Information Age Publishing.
- Dicke, A.-L., Nagengast, B. and Trautwein, U. (Submitted). The many ways supportive teachers matter. Differential effects of teacher support on student engagement.
- Dicke, A.-L., Trautwein, U. and Nagengast, B. (Submitted). Hauptschüler = desinteressiert und faul? Schulformunterschiede in der Entwicklung von Interesse und Anstrengungsbereitschaft.
- Wagner, W., Rose, N., Dicke, A.-L., Rosenberg, F., Neumann, M. and Trautwein, U. (Submitted). Alle alles lehren: Schulleistungen in Physik, Mathematik und Englisch vor und nach der Neuordnung der gymnasialen Oberstufe in Sachsen.
- Dicke, A.-L., Trautwein, U., Nagengast, B. and Wagner, W. (In preparation). Consequences of mandatory course enrollment for students' interest in the natural sciences.
- Gaspard, H., Dicke, A.-L., Flunger, B., Schreier, B., Häfner, I., Trautwein, U., and Nagengast, B. (In preparation). Measuring achievement value in all its facets: A close look at gender differences in value beliefs about math.

Schreier, B., Dicke, A.-L., Gaspard, H., Häfner, I., Flunger, B., Nagengast, B., and Trautwein, U. (In preparation). Influence of the Classroom Context on Students' Utility Value Perceptions of Mathematics.

### Dissemination

- 12th International Conference of Motivation (ICM), Frankfurt, Germany, 28-30 August, 2012. *Mandatory course enrollment and its influence on interest*. (Paper presented) [Dicke, A.-L., Trautwein, U., Nagengast, B. and Wagner, W.]
- Annual Meeting of the American Educational Research Association (AERA), San Francisco, California, USA, 27 April – 1 May 2012. *Differential effects of a supportive student-teacher relationship on student engagement*. (Poster presented).
- Annual Meeting of the American Educational Research Association (AERA), Vancouver, Canada, 13-17 April, 2012. *The assessment of teacher support and its relation to student interest*. (Poster presented).

### Awards

Travel Award of the Special Interest Group "Motivation in Education" at the 2013 Annual Meeting of American Educational Research Association (AERA).

## Post-doctoral Fellows

### Richard Göllner



I am a PhD student at the Center for Educational Science and Psychology at the University of Tübingen. My main research interests concern the mental well-being of children and adolescents, personality development, and academic success within the educational context. I am interested in understanding the individual and contextual determinants of development. In a recent study, I investigated the role of individual differences in emotional stability on children's depressive symptoms and showed that this relationship is "buffered" by classroom climate.

I am also involved in a project to investigate the validity of student ratings of instructional quality and participate in a school based prevention program of depressive symptoms in youths. I joined PATHWAYS in May 2012.

#### Research Plan

As a PATHWAYS Fellow I plan to extend my work on the mental well-being of children and adolescents. I will also continue my research on the association between youth's mental health and their functioning in various domains of life including academic performance and social well-being. Even though there is clear theoretical and empirical support for an association between mental health and functioning, prospective analyses that examined the strength and direction of the associations between the two are scarce. Working with other members of the PATHWAYS programme, we will be using data from two longitudinal surveys in England (i.e., British Cohort Study and Longitudinal Survey of Young People in England). These dataset contain a very rich set of information about children and adolescents in England and has been linked with administrative data on pupil test scores (including prior performance) and school-level information. It provides information on educational attainment, school information, family background as well as attitudes and behaviour.

I would also like to continue my work on the effects of the classroom context on mental well-being. Teachers influence their students not only by how and what they teach but also by how they relate, teach, and model social and emotional constructs, and how they manage the classroom. In particular, for students at risk, this might be an important resource to prevent maladaptation over the course of childhood and adolescence.

Finally, I would like to expand my research activities on school based prevention of depressive symptoms. This mainly includes the evaluation of an on-going prevention programme for middle schools at the University of Tübingen. This intervention targets cognitive and social aspects, and has yielded promising results in the past. Particularly central to our future work will be the question of whether the programme is also effective when it is delivered by school teachers, counsellors, and other providers in a school setting.



### Publications

- Schröder, A., Heider, J., Zaby, A. and Göllner, R. (2012). Cognitive behavioral therapy vs. progressive muscle relaxation training for multiple somatoform symptoms: Results of a randomized controlled trial. *Cognitive Therapy and Research*, 37, 296-306.
- Göllner, R. (In press). Mental health and its impact on social inequality: A review. *Zeitschrift für Erziehungswissenschaft*.
- Wagner, W., Göllner, R., Helmke, A., Trautwein, U., and Lüdtke, O. (In press). Construct validity of student perceptions of instructional quality is high, but not perfect: Dimensionality and generalizability of domain-independent assessments. *Learning and Instruction*.
- Kohler, B. and Göllner, R. (Accepted for publication). Individual differences in time-on-task: A within and between classroom perspective. *Zeitschrift für Unterrichtswissenschaft*.
- Probst, T., Lambert, M.J., Loew, T.H., Dahlbender, R.W., Göllner, R. and Tritt, K. (Accepted for publication). Feedback on patient progress and clinical support tools for therapists: Improved outcome for patients at risk of treatment failure in psychosomatic in-patient therapy under the conditions of routine practice. *Journal of Psychosomatic Research*.
- Göllner, R., Trautwein, U., Jonkmann, K., and Lüdtke O. (Submitted). Emotional stability, perceived peer acceptance, and well-being: (How) Classroom climate moderates the mediating role of peer acceptance.
- Göllner, R., Trautwein, U., Jonkmann, K., and Lüdtke O. (Submitted). Neuroticism, peer acceptance and emotional well-being in children: Direct effects, longitudinal mediation, and generalizability.
- Göllner, R., Schröder, A., Pfarr, S., Kalantzi-Azizi, A., and Reis, D. (Submitted). Examining separation, perceived competence, and psychological distress in Greek and German university students: A comparative study based on separation-individuation.
- Göllner, R., Domain, R., Roberts, B., Trautwein, U. (In preparation). Just do it: The effects of homework behavior on the development of children's conscientiousness.
- Bach, F., Göllner, R., and Schlarb, A. (In preparation). Cognitive behavioral therapy and modern hypnosis in treatment of pediatric primary headaches: Results of a randomized controlled trial.

Göllner, R., Trautwein, U., Jonkmann, K., and Lüdtke O. (In preparation). Personality development in early adolescence: Personality maturation or puberty specific change in Big Five traits.

### Dissemination

Tagung der Gesellschaft für Empirische Bildungsforschung (GEBF), Kiel, Germany, 11-13 March 2013. *Students' idiosyncratic perceptions of teaching quality: Individual judgment tendency or expression of student's needs*. (Paper presented).

## Post-doctoral Fellows

### John Jerrim



I am a Lecturer in Economics and Social Statistics at the Institute of Education. My research interests include the economics of education, access to higher education, intergenerational mobility, cross-national comparisons and educational inequalities. I have worked extensively with the OECD Programme for International Student Assessment (PISA) data, with this research reported widely in the British media. I received an ESRC Research Scholarship 2006-2010 and was awarded the prize as the 'most promising PhD student in the quantitative social sciences' at the University of Southampton. In October 2011, I was awarded a prestigious ESRC post-doctoral fellowship to continue my research into the educational and labour market expectations of adolescents and young adults.

Over the last year I have been successful in both publishing my work in academic journals, and disseminating results to a wide audience. I also obtained external funding from the British Academy to work on a new project entitled 'University access amongst socio-economically disadvantaged groups – A comparison across Anglophone countries'. This involves close collaboration with other members of the PATHWAYS Programme, including those from the University of Michigan and Michigan State University. The PATHWAYS programme has been instrumental in the success I have had over the past year, and will continue to play an important role in my career development. This year the BBC and the Financial Times have both covered my research and I have also been interviewed on BBC Radio 5 and Sky News.

Recently my research on Math test scores in England and East Asia was widely reported in the press.

#### Publications

- Jerrim, J. (2012). The socio-economic gradient in teenagers' literacy skills: how does England compare to other countries? *Fiscal Studies*, 33(2):159-184.
- Jerrim, J. and Micklewright, J. (2012). Parental socio-economic status and children's cognitive achievement at ages 9 and 15: how do the links vary across countries? In J. Ermisch, M. Jantti and R. Erikson (eds) *Inequality from Childhood to Adulthood: A Cross-National Perspective on the Transmission of Advantage*, New York: Russell Sage Foundation.
- Jerrim, J. (2013). The reliability of trends over time in international education test scores: is the performance of England's secondary school pupils really in relative decline? *Journal of Social Policy*. <http://dx.doi.org/10.1017/S0047279412000827>
- Jerrim, J. and Vignoles, A. (In press). Social mobility, regression to the mean and the cognitive development of high ability children from disadvantaged homes. *Journal of the Royal Statistical Society* [series A]. 10.1111/j.1467-985X.2012.01072.x
- Parker, P. Bodkin-Andrews, G. Marsh, H. Jerrim, J. and Schoon, I. (In press). Will closing the achievement gap solve the problem? An analysis of primary and secondary effects for indigenous university entry. *Journal of Sociology*.
- Jerrim, J. (In press). Do college students make better predictions of their future income than young adults in the labor force? *Education Economics*. <http://dx.doi.org/10.1080/09645292.2013.769045>
- Jerrim, J. and Choi, A. (Revise and resubmit). The mathematics skills of school children: how does the UK compare to the high performing East Asian nations? *Journal of Education Policy*.
- Jerrim, J.; Vignoles, A. and Finnie, R. (Revise and resubmit). University access for disadvantaged children: A comparison across English speaking countries. *Economics of Education Review*.
- Jerrim, J. and Micklewright, J. (Under review). Socioeconomic gradients in children's cognitive skills: are cross-country comparisons robust to who reports family background? *European Sociological Review*.
- Jerrim, J.; Vignoles, A.; Lingam, R. and Friend, A. (Under review). The socio-economic gradient in children's reading skills and the role of genetics. *British Education Research Journal*.

### Dissemination (Impact)

**Telegraph:** Bright secondary school pupils two years behind peers in the Far East (page lead), 22 February 2013  
<http://www.telegraph.co.uk/education/educationnews/9885577/Bright-pupils-falling-two-years-behind-peers-in-Far-East.html>

**The Guardian:** Star maths pupils in England two years behind Asian peers by age 16, 22 February 2013  
<http://www.guardian.co.uk/education/2013/feb/22/maths-pupils-england-behind-chinese>

**TES:** Why secondaries aren't to blame for our brightest pupils falling behind in Maths, 22 February 2013.  
<http://www.tes.co.uk/article.aspx?storycode=6320366>

**BBC website:** Top maths pupils 'fail to keep up with world's best', BBC News Education & Family, 22 February 2013  
<http://www.bbc.co.uk/news/education-21535055>

**The Times:** Cleverest maths pupils 'fall behind children in Far East' (page lead) – available only to subscribers

**Financial Times:** Bright pupils behind Asian peers in maths, study finds – subscribers only

**Daily Mail:** English pupils two years behind the Chinese in maths by the age of 16 (page lead) <http://www.dailymail.co.uk/news/article-2282577/English-pupils-years-Chinese-maths-age-16.html?ito=feeds-newsxml>

**Independent:** Maths pupils trail those in the Far East <http://www.independent.co.uk/news/education/education-news/english-pupils-two-years-behind-asian-peers-in-maths-8505821.html>

**Sun:** Brainiest kids trail to Orient success <http://www.thesun.co.uk/sol/homepage/news/politics/4807080/Brainiest-kids-in-England-are-TWO-YEARS-behind-their-peers-in-the-Far-East.html>

**The Press Association** also produced a report on the findings which was carried by

**Evening Standard:** Maths results gap 'widens with age' <http://www.standard.co.uk/panewsfeeds/maths-results-gap-widens-with-age-8506173.html>

**Engineering and Technology Magazine:** UK maths students two years behind foreign rivals <http://eandt.theiet.org/news/2013/feb/maths-students.cfm>

**Web India:** 16-year-old English pupils two years behind Chinese counterparts in maths <http://news.webindia123.com/news/Articles/World/20130222/2161104.html>

**Asian Scientist:** 16-Year-Old English Kids Two Years Behind Asian Peers, Study <http://www.asianscientist.com/academia/16-year-english-kids-two-years-behind-asian-peers-2013/>

**Today Online (Singapore):** Star maths pupils in England two years behind Asian peers by age 16 <http://www.todayonline.com/world/europe/star-maths-pupils-england-two-years-behind-asian-peers-age-16-study>

**Schools minister Liz Truss** on the *Spectator magazine* website: "Our brightest children are falling behind their peers in other countries" <http://blogs.spectator.co.uk/coffeehouse/2013/02/our-brightest-children-are-falling-behind-their-peers-in-other-countries/>

**The Labour Party "Labour:** This report shows Michael Gove has the wrong priorities – Brennan" [http://www.politicshome.com/uk/article/72776/this\\_report\\_shows\\_michael\\_gove\\_has\\_the\\_wrong\\_priorities\\_brennan.html](http://www.politicshome.com/uk/article/72776/this_report_shows_michael_gove_has_the_wrong_priorities_brennan.html)

**Report Magazine,** 'A world of ideas'. January 2013. <http://www.atl.org.uk/publications-and-resources/report/2013/2013-january-international-comparisons.asp>

**The Guardian** – Editorial, 'Overhauling exams: lessons in nostalgia'. 17th September 2012. <http://www.guardian.co.uk/global/2012/sep/17/overhauling-exams-lessons-in-nostalgia-editorial#start-of-comments>

**The New Statesman,** 'The Tories' manipulation of education statistics'. 30th July 2012. [http://www.newstatesman.com/blogs/politics/2012/07/tories-manipulation-education-statistics?quicktabs\\_most\\_read=0](http://www.newstatesman.com/blogs/politics/2012/07/tories-manipulation-education-statistics?quicktabs_most_read=0)

**The Times Educational Supplement,** 'Gove accused of building upon shaky PISA foundations'. 11th November 2012. <http://www.tes.co.uk/article.aspx?storycode=6298801>

**Times Educational Supplement**, 'Can our schools raise their standards by emulating high achieving systems abroad?'. 9th March 2012.  
[http://europe.nxtbook.com/nxteu/tsl/TES\\_STEM\\_20120309/index.php?startid=5](http://europe.nxtbook.com/nxteu/tsl/TES_STEM_20120309/index.php?startid=5)

**The Daily Post**, 'Still lessons to be learnt from flawed PISA'. 10th January 2012. <http://www.dailypost.co.uk/news/local-north-wales-news/cardiff-news/2012/01/10/still-lessons-to-be-learnt-from-flawed-pisa-says-professor-55578-30090180/>

**The New Statesman**, 'How Michael Gove manipulated education statistics'. 8th November 2012.  
<http://www.newstatesman.com/politics/2012/11/how-michael-gove-manipulated-education-statistics>

**The Guardian** - Editorial, 'Michael Gove: failing the test'. 21st June 2012. <http://www.guardian.co.uk/commentisfree/2012/jun/21/michael-gove-test-editorial>

**BBC News**, 'Bright pupils from poor backgrounds lag two years behind rich'. 29th June 2012. <http://www.bbc.co.uk/news/education-18644830>

**The Guardian**, 'Rich, bright students still ahead'. 29th June 2012. <http://www.guardian.co.uk/uk/feedarticle/10312571>

**The Daily Telegraph**, 'Poor pupils two years behind wealthier class mates at 15'. 29th June 2012.  
<http://www.telegraph.co.uk/education/educationnews/9362870/Poor-pupils-two-years-behind-wealthier-classmates-at-15.html>

**The Financial Times**, 'Unemployment set to impede social mobility'. 29th June 2012.  
<http://www.ft.com/cms/s/0/3eabaab0-c12f-11e1-8179-00144feabdc0.html>

**The Huffington Post**, 'Rich children two years ahead of poorer classmates, IoE survey finds'. 29th June 2012.  
[http://www.huffingtonpost.co.uk/2012/06/29/rich-children-two-years-ahead-poorer-classmates\\_n\\_1636701.html](http://www.huffingtonpost.co.uk/2012/06/29/rich-children-two-years-ahead-poorer-classmates_n_1636701.html)

**The London Evening Standard**, 'Rich, bright students still ahead'. 29th June 2012.  
<http://www.standard.co.uk/panewsfeeds/rich-bright-students-still-ahead-7897451.html>

**Teaching Times**, 'Huge gap in reading scores between bright children in top and bottom social groups'. 29th June 2012.  
<http://www.teachingtimes.com/news/gap-top-bottom-social-groups.htm>

**The National Literacy Trust**, 'Clever pupils from disadvantaged households two years behind wealthier peers in reading'. 4th July 2012.  
[http://www.literacytrust.org.uk/news/4730\\_clever\\_pupils\\_from\\_disadvantaged\\_households\\_two\\_years\\_behind\\_wealthier\\_peers\\_in\\_reading](http://www.literacytrust.org.uk/news/4730_clever_pupils_from_disadvantaged_households_two_years_behind_wealthier_peers_in_reading)

**The Times Educational Supplement** - Letters, 'Grappling with the attainment gap'. 6th July 2012.  
<http://www.tes.co.uk/article.aspx?storycode=6259988>

**The Times Educational Supplement Pro**, 'Achievement gap is wide even at the top'. 10th August 2012.  
<http://www.tes.co.uk/article.aspx?storyCode=6266890>

**BBC Radio** – Interview with Victoria Derbyshire, 29th June 2012. [http://www.bbc.co.uk/iplayer/episode/b01k75f2/Victoria\\_Derbyshire\\_29\\_06\\_2012/](http://www.bbc.co.uk/iplayer/episode/b01k75f2/Victoria_Derbyshire_29_06_2012/) 1hr 8mins

**The Times Higher Education Supplement**, 'Report highlights access benefit for children of graduates'. 14th December 2012. <http://www.timeshighereducation.co.uk/story.asp?sectioncode=26&storycode=422138&c=1>

**The Huffington Post**, 'Chance of attending university still influenced by parents' education'. 14th December 2012.  
[http://www.huffingtonpost.co.uk/2012/12/14/parents-still-influence-university-chance\\_n\\_2298821.html](http://www.huffingtonpost.co.uk/2012/12/14/parents-still-influence-university-chance_n_2298821.html)

**The Daily Express**, 'Parents influence uni chances'. 14th December 2012. <http://www.express.co.uk/posts/view/364697/Parents-influence-uni-chances->

### Awards

ESRC 'Early career impact award', 2013 – value of £10,000.

Awarded prize for the 'best presentation' at the British Educational Research Association Early Career Researcher conference 2012.

## Post-doctoral Fellows

### Sointu Leikas



I am a Researcher at the Institute of Behavioural Sciences, Department of Psychology, University of Helsinki. I joined the PATHWAYS programme in September 2012.

My research interests lie between personality and social psychology. I have studied the relative and interactive effects of personality and situation on behaviour, moderators of personality-behaviour relations, and personality perception. My future research will focus on the behavioural phenomenology of social competence, as well as personality and situation effects on social competence.

#### Research Plan

Social competence is among the psychological phenomena most relevant to everyday life. Previous research on social competence has concentrated heavily on children, adolescents and special populations, and on background factors (e.g. temperament) predicting global evaluations of social skills or popularity (e.g. "she is pro-social"). Thus, we know relatively little of the actual behaviours that constitute social competence, especially in the adult population. Furthermore, situation effects on social competence are seriously understudied – that is, we do not know whether socially competent behaviour means different things in different situations. My research aims at providing information about what people actually do (and not do) when they behave in a socially competent way in different situations.

In addition to mapping the behavioural and situational phenomenology of social competence, my research also has a broader goal of filling a gap in the study of the "personality triad" – person, situation, and behaviour. Personality and social scientists agree that behaviour is determined both by the person and the situation; however, despite the recurrent calls for the importance of such research, only few studies investigating both person and situation effects on a broad range of behaviours have been conducted. This state of affairs has left us with a shortage of information on which to build a solid theory of the dynamics of the "personality triad" – person, situation, and behaviour. In particular, we presently have very little empirical evidence or theoretical ground on which to base hypotheses regarding personality  $\times$  situation interactions, arguably the most important research topic in the personality science today. Another important caveat is the relative lack of studies directly measuring actual behaviour, especially in real-life situations.

The main goal of my research is to provide basic, descriptive information about socially competent behaviour in different situations. More particularly, I aim at a) providing descriptive information about what people actually do (and not do) when they, objectively speaking, behave in a socially competent way; b) establishing what kind of situations promote and counteract socially competent behaviour; c) identifying reliable personality  $\times$  situation interactions on social competence, thus providing a foundation for theory-building for such interactions.

I build on the most recent research by my colleagues, and my own, and use manipulated or naturally occurring dyadic interactions. Four studies with around 200 target participants and 450 observer participants are conducted. Most studies consist of two phases: 1) obtaining material of target participants' social behaviour (usually in the form of videotaped interactions), and 2) obtaining observer-ratings of target participants' social competence and behaviour. Different observers are always used to rate 1) a given target in different situations and 2) social competence and behaviour. The situations used include interaction a) with a close other vs. with a stranger b) with a quarrelsome vs. a neutral stranger; c) with a difficult vs. neutral customer in real-life work situations at the Social Insurance Institution of Finland (KELA) and at a chain of Finnish kiosks (R-kiosks; the relevant video material already exists), and d) after a threat prime vs. a neutral prime. Targets' behaviour is measured broadly, through micro-level (e.g. smiling, gazing), mid-level (e.g. dominance and warmth), and macro-level (observer-ratings of target

personality) behaviours. Observer-ratings of targets' social competence serve as the ultimate outcome variable. Target personality, situation, and personality  $\times$  situation interactions as predictors of behaviour and social competence are examined.

I expect to a) provide novel information about the behavioural phenomenology of social competence; b) provide novel information about situation effects on interpersonal behaviour and social competence; c) establish the relative effects of personality and certain situations (i.e. difficult vs. neutral partner, threatening vs. non-threatening situation) on a broad range of behaviour, and d) directly test certain empirically plausible personality  $\times$  situation interactions, thus building the much needed basis for a theoretical model of such interactions.

Based on several recent accounts reviewing the past, present, and future of the personality and social science, the expected findings should be deemed as highly relevant for the field. This is because the expected results actually serve to fill such a gap in the literature that has been repeatedly highlighted by the most prominent contributors of personality and social psychology.

The expected results are also relevant from a more applied perspective. For instance, the description of actual behaviours that are related to social competence and incompetence both in real life and in the laboratory should be directly relevant to organizational psychology, to social skill interventions and to psychotherapy practice. Particularly the mapping of socially competent behaviours in threatening and non-threatening situations, as well as with a close other vs. a stranger should be highly informative. Furthermore, from the perspective of work life, results concerning socially competent behaviour in real-life work situations should be highly relevant.

### Publications

Leikas, S., Lönnqvist, M., and Verkasalo, M. (2013). Posing personality: is it possible to enact the Big Five traits in photographs? *Journal of Research in Personality*, 47:15-21.

Leikas, S. and Salmela-Aro, K. (Submitted). Personality types during transition to young adulthood: how are they related to life situation and well-being?

### Dissemination / Impact

Radio interview in Finnish local radio (Helsinki) on my paper "Posing personality: Is it possible to enact the Big Five traits in photographs".

## Post-doctoral Fellows

### Nicola Pensiero



I am a research officer at the Centre for the Study of Learning and Life Chances in the Knowledge Economies (LLakes) at the Institute of Education. I recently completed a PhD in Social and Political Sciences at the European University Institute. I am also affiliated with the European School of Economics, where I taught Research Methods for Social Sciences. During my PhD I was a visiting researcher at the University of Wisconsin - Madison and participated, as an evaluation researcher, in the project "Praesidium IV" which aims at providing assistance to migrants debarking in southern Italy. I also participated, as a sociologist of education, in the research project "NEUJOBS" (7th Framework Programme) regarding the developments of the European labour markets.

I joined the PATHWAYS programme in January 2013. My research as a PATHWAYS Fellow falls in the area of social stratification and inequality in education, with a particular focus on strain and non-cognitive processes in educational attainment.

#### Research Plan

The differences in educational outcomes between higher and lower socioeconomic groups are far larger than implied by cognitive abilities. Pupils from lower socioeconomic backgrounds drop out more frequently and attain lower educational outcomes than one would expect on the basis of their cognitive ability. On the other hand, aspirational and motivational traits are as powerful as cognitive abilities as mediators of the impact of socioeconomic background on educational outcomes. While extant research tends to relate aspirations and motivations to prior ability or social class, my project draws on the general strain theory (GST, Merton 1938; Agnew 1992, 2001) to propose a psychosocial model of the formation of aspirations in educational contexts. It argues that the educational aspirations are accounted for by adaptive responses to perceived strain. Its core assumption is that a significant part of the non-cognitive processes in educational attainment, including the change of educational aspirations, reflects the child's responses to blocked opportunities to realize its full academic potential.

A great variety of circumstances may fall under the category of blocked opportunities. My focus is on the disjunction between children's academic potential, as measured by cognitive ability, and their academic achievement (grades). The class and cultural bias in rewarding pupils have been often related to inequalities in educational attainment (Svensson, 1971; Kerckhoff, 1976; Bourdieu and Passeron, 1990 [Or. Fr. 1970]; Erikson and Jonsson, 1996), but have received a paucity of recent empirical attention, especially regarding their consequences for the child's non-cognitive traits.

This project has three objectives: it revises GST to adjust its propositions to the processes of educational attainment and formulate a refined model of adaptive educational behaviour. 2) Inspect whether there is a bias in rewarding pupils and whether this bias is accounted for by the social class of origin 3) control whether such a bias determines a decline in aspirations/motivations as an adaptive strategy to blocked opportunities.

#### Publications

- Pensiero, N. (2012). Revisiting the debate on inequality. A longitudinal study using the British cohort study 1970. PhD thesis, European University Institute.
- Pensiero, N. (In preparation). Under-rewarding and strain in schooling: the consequences on the aspirations of the 1958 NCDS cohort.
- Pensiero, N. and Schoon, I. (In preparation). Social inequalities in educational attainment across 3 UK age cohorts.

Pensiero, N. (Under review). Demographic explanations of changing income inequality: the role of educational assortative mating in Italy.

## Post-doctoral Fellows

### Heta Tuominen-Soini



I am based at the Institute of Behavioural Sciences, University of Helsinki, Finland. I joined the PATHWAYS programme in December 2012. Prior to this, I was involved in the Finnish Educational Transitions (FinEdu) Study led by Katariina Salmela-Aro, from its onset in 2003 up to 2013. I have published papers in leading journals such as *Developmental Psychology*, *Learning and Instruction*, *Contemporary Educational Psychology*, and *Learning and Individual Differences*. I have presented my research at international conferences including the EARLI Conference for Research on Learning and Instruction, the International Conference on Motivation, the European Conference on Developmental Psychology, and the International SELF Research Conference.

#### Research Plan

Is it so, that students who are doing well academically are doing well also emotionally? Our studies show that there are two groups of students who are highly engaged and motivated to learn, but success-driven students are more vulnerable to school burnout compared to their mastery-oriented peers. On the other hand, there are also two groups of students whose motivation is less than optimal. The indifferent students do not have any severe problems, despite their passivity and poor achievement, whereas the problems cumulate in students who aim at avoiding schoolwork altogether. I am interested in exploring these relationships between student motivation and well-being. The findings of my dissertation demonstrated the importance of including measures of well-being when evaluating the role of achievement goal orientations in learning and achievement.

It seems apparent that school, studying, and academic achievement are important to students' self-evaluations and socio-emotional functioning, especially among adolescents given their heightened self-consciousness about their abilities. Adolescents' academic and emotional functioning are somewhat interdependent and, in my view, these two domains need to be combined when studying young people. The present work will link the study of motivation with well-being and explore both during a phase of life that is full of age-graded developmental tasks, transitions, challenges, demands, and possibilities.

In general, researchers have suggested that negative changes in school motivation, achievement, and psychological well-being take place during early adolescence, especially during educational transitions. However, some studies have demonstrated that not all students experience these negative shifts; many go through this phase without adjustment problems or declining motivation. Therefore, instead of merely considering overall developmental trends, it is crucial to address the question of individual development over time. A person-centred focus is useful whenever it is assumed that the data include heterogeneous groups of individuals. Furthermore, it is useful with longitudinal data to represent heterogeneity in developmental trajectories. Accordingly, I have a special interest in person-centred methodology and I will use a person-centred analytical approach in my work along with variable-centred analyses.

My doctoral research focused on three specific themes: 1) students' achievement goal orientation profiles, 2) the stability and change in these profiles preceding and during educational transitions, and 3) profile differences in academic and socio-emotional functioning. On the whole, the results of my dissertation demonstrated that students show various patterns of achievement goal orientations in lower and upper secondary education, that these patterns are relatively stable over time, and that these patterns are associated in meaningful ways with students' academic and socio-emotional functioning. The findings showed that there are two groups of students who are highly engaged and motivated to learn, but the success-driven students are more vulnerable to school burnout compared to their mastery-oriented peers. On the other hand, there are also two groups of students whose motivation is less than optimal. The indifferent students do not have any severe problems, despite their passivity and poor



achievement, whereas the problems cumulate to students who aim at avoiding schoolwork altogether. The findings demonstrate the importance of including measures of well-being when evaluating the role of achievement goal orientations in learning and achievement.

As a PATHWAYS Fellow, my research will focus on adolescents' and young adults' motivation (e.g., achievement goal orientations, task values), school engagement, well-being, and educational aspirations. I am particularly interested in the development of young people's motivation and subjective well-being during critical transitional periods (e.g., educational transitions and the transition from school to work). More specifically, my future research will focus on four specific areas: 1) reviewing studies examining achievement goal orientation profiles, 2) examining the development of achievement goal orientations during educational transitions, 3) investigating students' subject-specific achievement goal orientations and task values, and 4) examining students' schoolwork engagement and school burnout.

As a first step, I will finalize a review article (Tuominen-Soini, Salmela-Aro, & Niemivirta, in preparation), which has been presented at the EARLI 2013 conference in August. The aim of this study was to review studies examining achievement goal orientation profiles or groups. We reviewed 46 studies and investigated what kinds of profiles have been extracted and which profiles have been shown to be most adaptive with respect to academic and socio-emotional functioning. This study addresses the issues of prevalence, functionality, and stability of goal profiles and discusses the advantages of person-centred approach. This paper will be submitted after the conference around September 2013.

Second, I will continue research on the development of achievement goal orientations. In my doctoral dissertation, I examined the stability and change in achievement goal orientations in lower and upper secondary education both preceding educational transitions and across the transition to upper secondary education. In future, I will prolong the time span of the study design and investigate goal stability also during other educational transitions and even during the transition from school to work. It is a major limitation in prior research that virtually all studies addressing goal stability have deployed a variable-centred approach. There is a lack of studies addressing the question of individual development of achievement goal orientations, especially across educational transitions. The data for this study will be drawn from the FinEdu Study.

Third, as I have previously focused on general achievement goal orientations (i.e., students' general orientations towards learning and studying), I will investigate students' subject-specific achievement goal orientations in the future. A new data collection will be conducted in one general upper secondary school, in which I will assess students' subject-specific achievement goal orientations (with respect to mathematics and languages), task values, and academic well-being. With respect to task values, there is a preliminary plan of collaboration with Professor Ulrich Trautwein and his group from the University of Tübingen.

Fourth, I will focus on investigating students' school engagement and school burnout profiles. We have a manuscript that has just been accepted for publication in *Developmental Psychology* (Tuominen-Soini & Salmela-Aro, in press). In this study, we examined high school students' (academic track) schoolwork engagement and burnout profiles, the progressions of these profiles from adolescence to young adulthood, and relations to long-term educational outcomes. At the moment, we are preparing a manuscript on vocational school students' engagement and burnout profiles and their relations to motivation and dropout (Tuominen-Soini & Salmela-Aro, in preparation). Also, gender differences will be examined in this study. We further expect to use other, nationally representative, data sets for exploring the school engagement and burnout profiles among secondary school students and university students.

### Publications

- Tuominen-Soini, H., Salmela-Aro, K., and Niemivirta, M. (2012). Achievement goal orientations and academic well-being across the transition to upper secondary education. *Learning and Individual Differences*, 22, 290–305. doi:10.1016/j.lindif.2012.01.002
- Tuominen-Soini, H. (2012). Student motivation and well-being: Achievement goal orientation profiles, temporal stability, and academic and socio-emotional outcomes. *Studies in Educational Sciences*, 245. University of Helsinki, Institute of Behavioural Sciences. Helsinki, Finland: Unigrafia. <http://urn.fi/URN:ISBN:978-952-10-8201-6>
- Tuominen-Soini, H., and Salmela-Aro, K. (in press). Schoolwork engagement and burnout among Finnish high school students and young adults: Profiles, progressions, and educational outcomes. *Developmental Psychology*.
- Tuominen-Soini, H. (accepted for publication). Opiskelumotivaation ja hyvinvoinnin yhteydet ja kehitys nuoruudessa. *Kasvatus [The Finnish Journal of Education]*.
- Tuominen-Soini, H. (submitted). Student motivation and well-being: Reflections from a person-centred perspective.
- Niemivirta, M., Pulkka, A.-T., Tapola, A., and Tuominen-Soini, H. (submitted). Eri tavoin opiskeluun orientoituneiden tilannekohtainen motivaatio ja suoriutumisen päättelytehtävässä [Achievement goal orientation profiles and their relations to task-specific motivation and performance].
- Salmela-Aro, K., and Tuominen-Soini, H. (submitted). Mikä nuoria motivoi koulu-uupumuksesta innostukseen?
- Tuominen-Soini, H., Salmela-Aro, K., and Niemivirta, M. (manuscript in preparation). Students' multiple goals: A review of studies examining achievement goal orientation profiles.
- Tuominen-Soini, H., and Salmela-Aro, K. (manuscript in preparation). Vocational school students' engagement and burnout profiles and their relations to motivation and dropout.

### Dissemination (Impact)

15th Biennial EARLI Conference, 27–31 August 2013, München, Germany. Students' multiple goals: *A review of studies examining achievement goal orientation profiles*. [Paper presented].

Annual Conference of the Finnish Educational Research Association (FERA), 22–23 November, 2012, Helsinki, Finland. *Student motivation and well-being: Achievement goal orientation profiles and academic and socio-emotional outcomes*. [Paper presented].

Motivation Retreat, 10–14 September, 2012, Tübingen, Germany. *Secondary school students' achievement goal orientation profiles and academic well-being during an educational transition*. [Paper presented].

International Conference on Motivation, 28–30 August, 2012, Frankfurt am Main, Germany. *Finnish students' achievement goal orientations and academic well-being during an educational transition: A longitudinal person-centered approach*. [Paper presented].

Interview in Yliopisto (Helsinki University) magazine (both in print and online): <http://yliopisto-lehti.helsinki.fi/?article=7448>

News related to the Doctoral Dissertation Award, University of Helsinki, March 2013: <http://www.helsinki.fi/behav/uutisarkisto/2013/uutinen-26-03-2013.htm>  
<http://www.helsinki.fi/news/archive/3-2013/26-16-55-25.html>

Helsingin Sanomat newspaper: <http://tinyurl.com/c49ym7w>

News related to the Doctoral Dissertation Award, Faculty of Behavioural Sciences, June 2013: <http://www.helsinki.fi/behav/uutisarkisto/2013/uutinen-11-06-2013.htm>

### Awards/prizes

Doctoral Dissertation Award 2012, University of Helsinki, awarded March 2013

Doctoral Dissertation Award, Faculty of Behavioural Sciences, awarded June 2013

## Post-doctoral Fellows

### Jaana Viljaranta



I am working as a post doctoral researcher at the Department of Psychology, University of Jyväskylä, Finland. From 1st July to 31 August 2013, I was based at Institute of Behavioural Sciences at the University of Helsinki. I completed my PhD in December 2010 in the Finnish Centre of Excellence in Learning and Motivation Research, at the University of Jyväskylä. My dissertation examined students' learning motivation, especially the role of interest and task values in relation to academic skill development and educational plans. I became a PATHWAYS Fellow in October 2012.

My research focuses on the development of learning motivation, as well as on the role that teachers and parents play with regard to students' motivation. My special interests are the developmental changes in student motivation, as well as the role of learning motivation in relation to adolescents' educational and occupational plans and decisions. I'm also interested in deploying a person-oriented approach to examine these topics.

#### Research Plan

School is an important developmental context for children and adolescents, because not only does it provide a basis for key competencies and knowledge, but it also has a long term influence on individuals' future educational choices, occupational careers and life-span development overall. Dropping out of school and the labour market is a major risk for marginalization and social exclusion. Therefore, it is important to understand the mechanisms behind successful and unsuccessful schooling careers in order to create evidence-based interventions for those children and adolescents who show serious problems in socialisation.

My current research tries to increase our understanding of this topic by applying an integrative motivational perspective on education. The main aim is, first, to integrate motivational research by investigating the role of several different aspects of motivation on school achievement and success in educational transitions. The second aim is to integrate the research of the role of motivation at different phases of the school career by investigating students' motivational trajectories from kindergarten to the transitions to secondary education, to further education and to work life. The final aim is to examine the role of these trajectories on school achievement, success in educational transitions and career plans and choices, on the one hand, and on marginalization, on the other.

To find answers to the research questions, three longitudinal quantitative datasets from Finland and Australia will be used. Together these datasets cover the whole school career from kindergarten to transition to work life. All the datasets include several measures of motivation, which provides an opportunity for the integration of different motivation theories and constructs. In addition, several measures of skills and other academic and occupational outcomes (e.g. academic plans, actual choices, dropping out of school) are included in all the datasets, which provides a unique research basis for examining the long term effects of motivation. This research will also be unique as it will use both variable-oriented and person-oriented methods to examine the role of motivation. Finally, using these three datasets also gives an opportunity to focus on the role of cultural context: it will be possible to compare results concerning adolescents' motivational development from the Finnish educational system versus Australia's education.

## Publications

- Kiuru, N., Aunola, K., Torppa, M., Lerkkanen, M.-K., Poikkeus, A.-M., Niemi, P., Viljaranta, J., Lyyra, A.-L., Leskinen, E., Tolvanen, A. and Nurmi, J.-E. (2012). The role of parenting styles and teacher interactional styles in children's reading and spelling development. *Journal of School Psychology*, 50 (6):799-823. doi:10.1016/j.jsp.2012.07.001
- Aunola, K., Tolvanen, A., Viljaranta, J. and Nurmi, J.-E. (2013). Psychological control in daily parent-child interactions increases children's negative emotions. *Journal of Family Psychology*, Vol 27(3): 453-462. doi: 10.1037/a0032891
- Aunola, K., Viljaranta, J., Lehtinen, E., and Nurmi, J.-E. (2013). The role of maternal support of competence, autonomy and relatedness in children's interests and mastery orientation. *Learning and Individual Differences*, 25:171-177. doi:10.1016/j.lindif.2013.02.002
- Aunola, K., Ruusunen, A.-K., Viljaranta, J. and Nurmi, J.-E. (In press). Parental affection and psychological control as mediators between parents' depressive symptoms and child distress. *Journal of Family Issues*.
- Hirvonen, R., Alatupa, S., Viljaranta, J., Aunola, K., and Nurmi, J.-E. (In press). The Role of Temperament in Children's Affective and Behavioral Responses in Achievement Situations. *Learning and Instruction*.
- Viljaranta, J., Tolvanen, A., Aunola, K., and Nurmi, J.-E. (Revised and resubmitted). The developmental dynamics of interest, competence beliefs and related skills from first to seventh grade.
- Viljaranta, J., Hirvonen, R., and Aunola, K. (Under revision). The development of task motivation, achievement strategies and skills in mathematics and reading in the beginning of the school career: A person-oriented approach.
- Viljaranta, J., Kiuru, N., Lerkkanen, M.-K., Poikkeus, A.-M., and Nurmi, J.-E. (Submitted) Reading-related task motivation, self-concept of ability and academic performance in the beginning of school career: a person-oriented approach.
- Viljaranta, J., Virkkala, J., Hirvonen, R., Pakarinen, E., Alatupa, S., and Aunola, K. (In preparation). The role of temperament on children's skill development.
- Viljaranta, J., Aunola, K., and Nurmi, J.-E. (In preparation). Task motivation, achievement strategies and mathematical and reading skills among fourth-graders: A person-oriented approach.
- Viljaranta, J., Rääkkönen, E., Aunola, K., and Nurmi, J.-E. (In preparation). The development of interests, self-concept of abilities and performance from Grade 7 to Grade 9: A person-oriented approach.
- Viljaranta, J., Silinskas, G., Hirvonen, R., Pakarinen, E., Lerkkanen, M.-K., Poikkeus, A.-M., and Nurmi, J.-E. (In preparation). Homework assistance and achievement-related behaviors from Grade 2 to Grade 4.

## Dissemination / Media Impact

The following paper received large media attention both nationally in Finland and internationally. Several interviews related to this paper have been given.

Aunola, K.; Tolvanen, A.; Viljaranta, J. and Nurmi, J.-E. (2013). Psychological control in daily parent-child interactions increases children's negative emotions. *Journal of Family Psychology*, Vol 27(3): 453-462. doi: 10.1037/a0032891

<http://www.sciencedaily.com/releases/2013/03/130322090748.htm>

<http://www.family-ethics.com/2013/03/parent-induces-guilt-child-shows.html>

<http://www.femalennetwork.com/family-parenting/-guilt-inducing-parenting-may-cause-children-distress>

<http://www.vau.fi/Perhe/Kasvatus/Aidille-tulee-pahamieli-/>

[http://m.iltalehti.fi/perhe/2013032116813213\\_pr.shtml](http://m.iltalehti.fi/perhe/2013032116813213_pr.shtml)

[http://www.tiede.fi/uutiset/5001/sylllistava\\_kasvatus\\_ahdistaa\\_lasta\\_](http://www.tiede.fi/uutiset/5001/sylllistava_kasvatus_ahdistaa_lasta_)

<http://www.ksml.fi/uutiset/kotimaa/tutkimus-sylllistava-kasvatus-herattaa-lapsissa-kiukkua/1311176>

<http://www.vaukirja.fi/Lapset-ja-lukeminen/Ajankohtaista/Sylllisyden-kokemukset-tarpeettomia-lasten-kasvatuksessa/>

## Alumni

### Håkan Andersson



I joined the PATHWAYS programme in June 2012. Until recently, I was based at the Department of Psychology at the University of Stockholm, Sweden. My PhD in developmental psychology was completed in June 2012 at the University of Stockholm, where I was trained by Professor Lars R. Bergman. My dissertation, entitled "Childhood Self-Regulation, Academic Achievement, and Occupational Attainment", investigated the association between different self-regulatory processes and academic achievement in childhood and also in relation to later adaptation in adulthood.

My research as a PATHWAYS Fellow has focused on gifted children's later adaptation. I also continued my work on self-regulation. Finally, in collaboration with other PATHWAYS fellows, I investigated the micro-dynamics of flow using intense diary data.

#### Summary of Fellowship

The fellowship has been very rewarding and successful. It has allowed me to initiate and complete several collaborations with other fellows and PI's. In addition, the meetings and collaborations have given me the opportunity to learn from other fellows' and PI's and also to share my own knowledge via teaching in, for example, Finland. PATHWAYS gave me a platform to be able to seek out other alternative careers which have now resulted in a new position as an analyst within the government.

#### Beyond the Fellowship

I have accepted a position as an Analyst at the Swedish Higher Education Authority, providing the Ministry of Education and also other relevant sectors within the society with statistics about higher education.

#### Awards

Best doctoral thesis in Psychology at Stockholm University 2012

#### Publications

- Dietrich, J., Andersson, H., and Salmela-Aro, K.  
Developmental Psychologists' Perspective on Pathways through School and beyond. In P. Blanchard, F. Bühlmann, and J.-A. Gauthier (Eds.). *Advances in sequence analysis: Methods, theories and applications*. Springer.
- Obschonka, M., Andersson, H., Silbereisen, R., and Sverke, M. (In press). Rule-breaking, crime, and entrepreneurship: A replication and extension study with 37-year longitudinal data. *Journal of Vocational Behavior*.

## Alumni

### Julia Dietrich



Since the beginning of 2013, I am a research associate (equivalent to assistant professor) at the Department of Educational Psychology, Institute of Educational Science, University of Jena. After completing my PhD in developmental psychology at the University of Erfurt in 2010, I was a PATHWAYS Fellow under the mentorship of Katariina Salmela-Aro at the University of Helsinki. My current research focuses on two topics: (1) educational transitions, especially the transition from schooling to working life or higher education, and (2) young people's motivation related to educational and career developmental tasks. I am also interested in methods for the analysis of change and the assessment of context effects on young people's development.

#### Summary of Fellowship

Being a PATHWAYS Fellow has been a wonderful experience in many ways. Not only has it given me the opportunity to develop ties with other Fellows and faculty members; the contact with outstanding researchers has opened up international perspectives and new areas of study for me. It has provided me with research tools to succeed in academia, and has resulted in me being involved in more than 10 publications with other Fellows and faculty (6 of these as first author). My fellowship has thus definitely enhanced my passion and skills for a research career, and strengthened my ambitions to produce excellent research in the field of youth development.

#### Beyond the Fellowship

Currently I hold the position of a research associate (German: Habilitationsstelle, equivalent to assistant professor) at the Institute of Educational Science, Department of Educational Psychology, with the aim of completing a Habilitation which in Germany is the requirement for applying to full professorship positions. I plan to submit the Habilitation in 2015. As is common for a Habilitationsstelle, my position includes teaching on Bachelor and Master level in Educational Science (4 hours per week).

#### Publications

- Dietrich, J., Parker, P., and Salmela-Aro, K. (2012). Phase-adequate engagement at the post-school transition. *Developmental Psychology*, 48, 1575-1593.
- Dietrich, J., and Salmela-Aro, K. (2013). Parental involvement and adolescents' career goal pursuit during the post-school transition. *Journal of Adolescence*, 36, 121-128.
- Dietrich, J., Andersson, H., and Salmela-Aro, K. (in press). Developmental psychologists' perspective on pathways through school and beyond. In P. Blanchard, F. Bühlmann, and J.-A. Gauthier (Eds.). *Advances in sequence analysis: Methods, theories and applications*. Springer.
- Dietrich, J., Shulman, S., and Nurmi, J.-E. (in press). Goal pursuit in young adulthood: The role of personality and motivation in goal appraisal trajectories across 6 years. *Journal of Research in Personality*.
- Dietrich, J., Lichtwarck-Aschoff, A., and Kracke, B. (in press). Deciding on a college major: Commitment trajectories, career exploration, and academic well-being. *Diskurs Kindheits- und Jugendforschung*.
- Ranta, M., Dietrich, J., and Salmela-Aro, K. (in press). Career and romantic relationship goals and concerns during emerging adulthood. *Emerging Adulthood*.
- Dietrich, J., and Salmela-Aro, K. (under review). Emerging adulthood and phase-adequate engagement at the education-to-work transition – Review of the decade. *Emerging Adulthood*.
- Sortheix, F., Dietrich, J., Chow, A., and Salmela-Aro, K. (under review). Career values and engagement in the transition from education to work. *Journal of Vocational Behavior*.
- Tynkkynen, L., Dietrich, J., Salmela-Aro, K. (revise and resubmit). Career goal-related success expectations across two educational transitions: A 7-year longitudinal study. *European Journal of Developmental Psychology*.
- Dietrich, J., van de Schoot, R., Parker, P. D., and Salmela-Aro, K. (in preparation). Mastering the post-school transition: Phase-adequate career goal engagement and academic experiences.
- Moeller, J., Dietrich, J., Eccles, J. S., and Schneider, B. (in preparation). On the long-term stability of passion: A longitudinal experience sampling approach.

#### Dissemination

Workshop for PhD Students, Finnish Graduate School of Psychology, University of Helsinki, 20-21 February, 14-15 March. 2013. Assessment of Developmental Processes (Workshop held together with Håkan Andersson).

## Alumni

### Kathryn Duckworth



#### Summary of Fellowship

I joined PATHWAYS in January 2009 as a Postdoctoral Fellow after studying for a PhD in Education at the Centre for Research on the Wider Benefits of Learning (WBL), Institute of Education, where I was previously employed. In October 2009, I was seconded to the Prime Minister's Strategy Unit as a policy advisor for five months. I was based at the University of Michigan in 2005, working as Visiting Scholar in the Centre for the Analysis of Pathways from Childhood to Adulthood, Institute of Social Research and remain a Research Associate of this group.

My research interests lie in exploring the manifestation of educational inequalities through the school years and assessing how contexts interact to create inequalities. In particular, I focus on research addressing the question of whether school can be part of the reduction in inequalities, or whether it just contributes to further compounding the differences between those from more and less disadvantaged backgrounds. My PATHWAYS fellowship has given me an opportunity to develop my interest in international cross-cohort comparisons and explore the mechanisms through which social adversity affects children's development across different contexts.

#### Beyond the Fellowship

I have recently been offered and accepted a role as Co-Investigator on the prestigious Longitudinal Study of Young People in England (LSYPE) study which is following a cohort born in 1989-90. I will assume this role at the Centre for Longitudinal Studies at Institute of Education upon my return from maternity leave in early September.

#### Publications

- Duckworth, K. and Schoon, I (2012). Beating the odds: Exploring the impact of social risk on young people's school-to-work transitions during recession in the UK. *National Institute Economic Review*, 222, 38-51. DOI: 10.1177/002795011222200104
- Obschonka, M., Duckworth, K., Schoon, I. and Silbereisen, R. (2012). Social competencies in adolescence and entrepreneurship in young adulthood: A two-study analysis. *International Journal of Developmental Science*, 6, 137-150. DOI 10.3233/DEV-2012-12108
- Siegler, R. S., Duncan, G.J., Davis-Kean, P.E., Duckworth, K. et al. (2012). Precursors of High School Mathematics Achievement. *Psychological Science*. DOI: 10.1177/0956797612440101
- Schoon, I and Duckworth, K. (2012). Who becomes an entrepreneur? Early life experiences as predictors of entrepreneurship. *Developmental Psychology*. DOI.10.1037/a0029168
- Duncan, G.J., Bergman, L., Duckworth, K., Kokko, K., Lyyra, A-L., Metzger, M., Pulkkinen, L. and Simonton, S. (2012). The Role of Child Skills and Behaviors in the Intergenerational Transmission of Inequality: A Cross-National Study. In J. Ermisch, M. Jäntti, and T. Smeeding (Eds.), *From Parents to Children: The Intergenerational Transmission of Advantage*. Russell Sage Foundation: New York.
- Duckworth, K. and Cara, O. (2012). The relationship between adult learning and wellbeing: Evidence from the 1958 National Child Development Study (BIS Research Paper, No. 94). London: Department for Business, Innovation and Skills.
- Duckworth, K., Duncan, G.J., Kokko, K., Lyyra, A-L., Metzger, M. and Simonton (2012). The relative importance of adolescent skills and behaviors for adult earnings: A cross-national study. Department of Quantitative Social Science Working Paper 2012-03. London: Institute of Education, University of London.
- Davis-Kean, P.E., Duckworth, K., Susperreguy, M. I., and Chen, M. (in preparation). The Developmental of Maths Skills in Middle Childhood: The mediating roles of self concept.
- Siegler, R. S., Duncan, G.J., Davis-Kean, P.E., Duckworth, K. et al. (in preparation). The Developmental of Maths Skills in Middle Childhood: The mediating roles of non-cognitive skills and school structure.
- Duckworth, K. and Schoon, I (revise and resubmit / in preparation). Successful entrepreneurship: A developmental-contextual approach. *Journal of Vocational Behavior*
- Duckworth, K., Duncan, G.J., Kokko, K., Lyyra, A-L., Metzger, M. and Simonton (in preparation). The relative importance of adolescent skills and behaviors for adult earnings: A cross-national study.

## Alumni

### Martin Obschonka



I am a research associate at Jena University Germany, studying the development of entrepreneurial spirit and psychological aspects of new venture creation. My research also deals with the individual consequences of today's accelerated worldwide social and economic change, with a special focus on the world of work and entrepreneurship. My research applies a cross-national and biopsychosocial format that considers biological factors (e.g., genetic makeup, basic personality structure) as well as human agency, motivation, and contextual influences such as peer and family interactions.

#### Summary of Fellowship

PATHWAYS had a major impact on my research career. For example, the programme enabled me to work with unique longitudinal datasets covering the lives of children and adolescents well into adulthood. This allowed me to make the next step in my research by studying entrepreneurial development over the life course longitudinally in several countries. It further allowed me to make significant progress with regard to theory development, our Special Issue on entrepreneurship which featured the model of entrepreneurial development over the life course is just one example. The PATHWAYS programme with its wonderful resources also helped me a lot with regard to international networks and research collaborations. I think such systematic and sustainable support in the postdoctoral phase is crucial for progress and it has put my research on a higher level and provided me the skills, networks, and collaborations that build the basis for my current work and the next career steps. I thus consider PATHWAYS as an excellent programme that boosted both my research and my career.

#### Beyond the Fellowship

I am currently a research associate at the CADS in Jena. This new position allows me to work on my habilitation thesis, to continue my research on entrepreneurship and social and economic change, to publish research articles in leading journals (see publication list), to work on project proposals, and to attend leading international conferences. Furthermore, I teach several courses in psychology and economics (e.g., on entrepreneurship, developmental diagnostics, or evaluation) at Jena University. The main goal in this new position is to finish my habilitation project, and then to work on a grant proposal for a DFG project (German Research Foundation) because successful fund raising is a crucial next step in my scientific career.

#### Dissemination / Media

2013 Babson College Entrepreneurship Research Conference, 06/2013, Lyon, France, *Performance effects of human capital: Disentangling the effect of experiences and competencies among nascent and young entrepreneurs*. (Talk)

My research work has been covered by national and international media, including radio broadcasts (e.g., MDR Info, BR, Radio RSH, Landeswelle Thüringen), television (e.g., Bloomberg TV) and print and *online* media (e.g., *Berliner Morgenpost*, *Berliner Zeitung*, *Blick.ch*, *Bloomberg Businessweek*, *Delmagyar.hu*, *DerStandard.at*, *Die Welt*, *Express.be*, *Focus.de*, *Folha de S. Paulo*, *Fortune*, *Foxbusiness.com*, *Frankfurter Rundschau*, *Gehirn und Geist*, *Hamburger Abendblatt*, *Handelsblatt*, *Hannoversche Allgemeine Zeitung*, *Ingenieur.de*, *Impluse - Das Unternehmergezine*, *Inc. Magazine*, *Industrial Engineer Magazine*, *Kieler Nachrichten*, *Kölner Stadt-Anzeiger*, *Libertyinvestor.com*, *Luzerner Zeitung.ch*,

*ManagerSeminare*, *Men's Health*, *Merkur-online.de*, *MSN.com*, *N-TV.de*, *Neue Ruhr Zeitung*, *NU.nl*, *Ostthüringer Zeitung*, *Ostsee-Zeitung*, *Popular Science*, *Psychology Today*, *Report Psychologie*, *Saarbrücker Zeitung*, *Spiegel Online*, *Stern.de*, *Suedostschweiz.ch*, *Tagesspiegel*, *The Atlantic*, *The Huffington Post*, *TheWeek.com*, *Thüringische Landeszeitung*, *VeckansAffärer.se*, *Westdeutsche Allgemeine Zeitung*, *Westfälische Rundschau*, *Wirtschaftsblatt.at*, *Yahoo.com*)

#### Examples print media:

<http://t.co/b46TfcUOH0>

<http://www.theatlanticcities.com/jobs-and-economy/2013/05/search-entrepreneurial-personalities-specific-places/5572/>

<http://www.welt.de/wirtschaft/article116699159/Unternehmergeist-muesste-man-haben.html>



<http://smallbusiness.foxbusiness.com/entrepreneurs/2013/06/06/entrepreneur-usa-where-most-business-owners-come-from/>

<http://news.menshealth.com/steal-the-entrepreneurial-spirit/2013/06/15/>

<http://www.popsci.com/science/article/2013-08/study-finds-teenage-entrepreneurs-are-anti-social-trouble-makers>

<http://www.spiegel.de/karriere/berufsleben/firmengruender-die-dunklen-seiten-des-unternehmergeists-a-915178.html>

<http://www.businessweek.com/articles/2013-08-09/kids-who-get-in-trouble-grow-up-to-be-entrepreneurs>

<http://finance.fortune.cnn.com/2013/08/14/most-likely-to-start-a-business-try-antisocial-teens/>

#### Example TV:

[http://www.bloomberg.com/video/rule-breaking-entrepreneurship-and-teenagers-ynQ1SpTSR\\_Ooby2ijJ1NIQ.html](http://www.bloomberg.com/video/rule-breaking-entrepreneurship-and-teenagers-ynQ1SpTSR_Ooby2ijJ1NIQ.html)

- Research brief published in the Academy of Management Perspectives (AMP): <http://amp.aom.org/content/25/1/100.extract>

#### Publications

Obschonka, M., Andersson, H., Silbereisen, R. K., and Sverke, M. (2013). Rule-breaking, crime, and entrepreneurship: A replication and extension study with 37-year longitudinal data. *Journal of Vocational Behavior*, 83, 386-396.

Obschonka, M., Schmitt-Rodermund, E., Silbereisen, R. K., Gosling, S. D., and Potter, J. (2013). The regional distribution and correlates of an entrepreneurship-prone personality profile in the United States, Germany, and the United Kingdom: A socioecological perspective. *Journal of Personality and Social Psychology*, 105(1), 104-122.

Stuetzer, M., Obschonka, M., Davidsson, P., Schmitt-Rodermund, E. (2013). Where do entrepreneurial skills come from? *Applied Economics Letters*, 20(12), 1183-1186.

Stuetzer, M., Obschonka, M., and Schmitt-Rodermund, E. (2013). Balanced skills among nascent entrepreneurs. *Small Business Economics*, 41(1), 93-114.

Obschonka, M. and Silbereisen, R. K. (2012). Entrepreneurship from a developmental science perspective. Editorial for the Special Issue "Entrepreneurial development: Person and context". *International Journal of Developmental Science*, 6(3-4), 107-115.

Obschonka, M., Duckworth, K., Silbereisen, R. K., and Schoon, I. (2012). Social competencies in childhood and adolescence and entrepreneurship in young adulthood: A two-study analysis. *International Journal of Developmental Science*, 6(3-4), 137-150.

Obschonka, M., Silbereisen, R. K., Cantner, U., and Goethner, M. (under review). Self-identity and entrepreneurial transitions: A longitudinal two-sample study in the academic entrepreneurship context.

Obschonka, M. and Silbereisen, R. K. (under review). New work demands associated with social and economic change and the satisfaction paradox in the self-employed.

Obschonka, M., Schmitt-Rodermund, E., Terracciano, A. (under review). Personality and the gender gap in entrepreneurship: A global study.

Obschonka, M. (under review). Entrepreneurship as 21st century skill: Taking a developmental perspective. In Coetzee, M. (Ed.): *Psychosocial career meta-capacities: Dynamics of contemporary career development*. Amsterdam: Springer.

Krause, A., Obschonka, M., and Silbereisen, R. K. (under review). Socio-economic change and individual job insecurity: Investigating the role of perceived new demands associated with socio-economic change.

## Alumni

### Jaime Puccioni



I was a PATHWAYS Fellow since October 2012. I have a dual PhD in Educational Policy and Curriculum, Instruction, and was a Teacher with an emphasis in language and literacy at Michigan State University, USA. I joined the Pathways programme in August 2012.

#### Summary of Fellowship

During my tenure as a PATHWAYS Fellow, I presented at several professional conferences, began several new research projects and collaborations, in addition to preparing a manuscript based on work from my dissertation for publication.

#### Beyond the Fellowship

I recently took up the position of Assistant Professor of Reading at the University at Albany, State University New York (SUNY) where I will be teaching courses in Reading and Writing in a Second Language and Quantitative Methods for Literacy Research.

My research examines the ways in which family and classroom contexts influence children's educational opportunities and development, with a particular focus on language and literacy. I am particularly interested in understanding how parents' beliefs shape their behaviours, which in turn, influence children's literacy development. My current project examines the relationship among children's opportunities to learn, approaches toward learning, and reading development in elementary school.

#### Publications

- Puccioni, J. (Under review). Parents' conceptions of school readiness, transition practices, and children's academic achievement trajectories.
- Puccioni, J. (In preparation). Children's opportunities to learn and approaches toward learning as predictors of reading growth in elementary school.
- Puccioni, J. and Edwards, P. (In preparation). A framework for engaging parents to build children's early literacy skills: A focus on parents' beliefs about literacy development and practices.
- Covay, E. and Puccioni, J. (In preparation). Inequality in noncognitive skills and cumulative disadvantage.

#### Dissemination

American Educational Research Association conference, San Francisco, August, 2013. *Academic socialization and the transition to school: Parents' conceptions of school readiness, practices, and children's academic achievement.* (Paper presented).

American Sociological Association conference, New York, August, 2103. *Inequality in noncognitive skills and cumulative disadvantage.* (Paper presented).

## Principal Investigators

### Lars Bergman



Lars Bergman is professor emeritus in longitudinal methodology and research strategy at the Department of Psychology, Stockholm University. He is also the former head of the Stockholm Laboratory for Developmental Science and the longitudinal research programme, Individual Development and Adaptation (IDA).

#### Summary of recent work

The PATHWAYS work in Stockholm has focused on the long-term development of children with high IQ. It is included as a part within a research project led by myself and financed by the Swedish Royal Academy of Sciences. Håkan Andersson, the Stockholm PATHWAYS Fellow, has been working on a paper on the importance of a high competence profile for career development. A special issue has been accepted for publication in *Research in Human Development* and one article within the issue will be the paper Håkan is working on. Another PATHWAYS Fellow, Martin Obschonka, is using our IDA data base for studying entrepreneurship. Håkan Andersson is also working on a series of other publications that concern developmental issues related to PATHWAYS.

#### As a mentor within PATHWAYS

My role as a mentor has mainly been guiding and working with Håkan Andersson as well as providing Martin Obschonka with our IDA data and discussing the planning of the paper based on these data.

## Principal Investigators

### Jacque Eccles



Jacque Eccles is the McKeachie/Pintrich Distinguished University Professor of Psychology and Education at the University of Michigan. She is also director of the Achievement Research Laboratory at the Institute for Social Research, where she directs three large-scale longitudinal studies on youth development which are used by the PATHWAYS Fellows in comparative studies. Prof. Eccles is also collaborating with Dr. Schneider on the NSF grant which studies developmental trajectories linked to STEM and other occupational choices.

#### Summary of recent work

We are continuing to collect data on two longitudinal studies on the transition into and through early adulthood. We have been able to relocate about 90% of each sample and have gotten survey responses around 30% of each sample. We are now using other web based sources to gather additional information on the occupations of other sample members. In addition, we are continuing our analyses of the previous waves of data, looking particularly at the predictors of involvement in STEM occupations and STEM activities.

#### As a mentor within PATHWAYS

I am directly mentoring Meeta Banerjee. I am also working with Barbara Schneider with Walter Cook and both Julia Moeller and Julia Dietrich.

## Principal Investigators

### Katariina Salmela-Aro



Katariina Salmela-Aro is a professor and research director in the Helsinki Collegium for Advanced Studies. She is director of two longitudinal studies FinEdu and HELS on school and work engagement, transitions, burnout and transition of the labour market or tertiary education.

#### Summary of recent work

The period 2012-2013 has been very productive for my team at the University of Helsinki. The main themes we worked on were student engagement, motivation and burnout during critical transitions. Together with Ulrich Trautwein, I edited a special issue entitled: School success: European perspective to *European Psychologist*, in July 2013. We have published several key articles on the theme of school engagement and burnout which are published in journals such as *Developmental Psychology*, *British Journal of Educational Psychology*, *Journal of Abnormal Child Psychology*, *European Psychologist*, *Journal of Happiness Studies*, and *Journal of Research on Adolescence* (see below). I have given several keynote talks including at the Nordic Student Health conference and in the ISSBD in Canada.

We are currently finalizing the questionnaires for the new wave of the FinEdu longitudinal study. We succeeded in receiving funding from the Academy of Finland research programme, MIND with Kirsti Lonka, Kai Hakkarainen and Kimmo Alho for our Mind the Gap programme, which allows us to collect new longitudinal data from among the Finnish millennium, high school students and university students. Along with Jari Lavonen, I also received funding from the Academy of Finland in the SAVI program to collaborate with Barbara Schneider in the new study using smartphones to study STEM (science, technology, engineering, math) engagement.

The PATHWAYS Fellows I have mentored in Finland have received several awards. I organized several methodological seminars in Helsinki for the PATHWAYS fellows as well as several workshops. I was teaching in the winter school of the EADP (European Association for Developmental psychology) in Leuven and in the SRA/EARA summer school in Ohio. As a visiting professor at the Institute of Education, I gave a talk and a seminar concerning new wave of data collection of the Millennium cohort. I also edited the special issue of Salmela-Aro, K. and Trautwein, U. (2013), School success in Europe, *Editorial, European Psychologist*, 18, 77-78

#### As a mentor within PATHWAYS

Julia Dietrich was a Fellow until the end of the year 2012. She received a five year position from the University of Jena. We published together both theoretical papers and empirical paper of the dynamics of motivation during transition from school to work. Julia gave a successful workshop in Helsinki with Håkan Anderson on methodological issues on longitudinal data. Julia Dietrich is excellent post-doctoral fellow.

The Fellows I mentor in Finland include Heta Tuominen-Soini, Jaana Viljaranta and Sointu Leikas. They received several awards. Heta's thesis was selected as the best one of the University of Helsinki. She continues to work on achievement motivation but takes a broader approach. Jaana Viljaranta and Sointu Leikas both received three year post-doctoral grants from the Academy of Finland. Jaana examines the role of task motivation and Sointu, the role of personality during the development of independent adulthood.

## Principal Investigators

### Barbara Schneider



Barbara Schneider is the John A. Hannah Chair and University Distinguished Professor in the College of Education and Department of Sociology at Michigan State University. Her research and teaching focus on understanding how the social contexts of schools and families influence the academic and social wellbeing of adolescents as they move into adulthood, with a particular emphasis on improving educational opportunities for students with limited economic and social resources. Dr. Schneider is the principle investigator of the College Ambition Program (CAP), a study that tests a model to create a STEM college-going culture in seven high schools that encourage adolescents to pursue STEM majors in college and occupations in these fields. This study will be expanded to include eight additional high schools for the 2013-2014 school year. She is also co-principal investigator of the Michigan Consortium for Educational Research (MCER), a collaboration between the Michigan Department of Education, Michigan State University, and the University of Michigan to assess the implementation and impact of two key reforms in Michigan designed to work in tandem to promote college attendance and workplace success. These two reforms involve increasing the number of required rigorous academic courses students are expected to complete in high school and a college scholarship program for students meeting specific academic and admission test score criteria. This collaboration uses state administrative data and also includes an intensive study of 150 high schools in the state that were selected to represent a generalizable sample of schools and students in the state of Michigan. Barbara is also co-principal investigator of Improving Understandings of Student Engagement in STEM to Enhance Teacher Education and Classroom Instruction: An International Collaboration, a study designed to advance both the measurement of student engagement, and the development of tools to help mathematics and science teachers identify, encourage, and sustain engagement in their classroom. Recently, she began her term as president of the American Educational Research Association.

#### Summary of recent work

The most exciting outcome of Phase II has been the collaboration between the University of Helsinki and MSU on the NSF funded Improving Understandings of Student Engagement in STEM to Enhance Teacher Education and Classroom Instruction: An International Collaboration. The seeds of this work grew directly from the collaborative opportunities provided through the Pathways project. I am working with a team from MSU and the University of Helsinki to measure student engagement in sciences classes using the Experience Sampling Method (ESM) and mobile phone technology. My team and I are working closely with a consultant from Google using an application designed to collect data through the use of cell phones. Both the Finnish and MSU teams will be looking at the data over the summer and planning for additional data collection efforts in the 2013-2014 school year.

As president of AERA I hope to continue to raise the profile of the PATHWAYS project both in the US and in the international AERA association and its affiliates. This programme, which began with a small number of fellows, is undoubtedly having a wider influence than I had ever envisioned and I look forward to continuing my work with my colleagues and Fellows. As president of AERA, I hope to be able to spotlight the work of PATHWAYS at the 2014 annual meeting.

#### Policy Contributions

In fall 2012, along with colleagues at the State Department of Education and the University of Michigan, through the MCER project, we released initial findings from the study of the Michigan Merit Curriculum at a conference attended by state and national education policy makers.

I assisted the Council of Chief State School Officers (CCSSO) to design an evaluation plan for the Innovation Lab Network (ILN). This involved site visits to Ohio, Maine, Kentucky, New Hampshire, and Wisconsin, who are all participants in the ILN.

### As a mentor within PATHWAYS

I have mentored and worked with Dr. Anna K. Chmielewski, a postdoctoral associate fellow who has joined the PATHWAYS team. Her research interests are in cross-national comparison of secondary school curricular tracking and ability grouping, segregation, socioeconomic achievement gaps, and income inequality. Partial funding for Chmielewski's participation was contributed by the Counselling, Educational Psychology, and Special Education Department at Michigan State University. I worked with Chmielewski to revise a publication for submission to the American Journal of Education. At the December PATHWAYS meeting in the UK, I encouraged Chmielewski to extend her visit and work with Dr. John Jerrim at the Institute of Education, University of London to begin a paper they are writing together, along with Phil Parker at the University of Western Sydney, comparing the effects of family background on educational attainment in the US, the UK, and Australia. In the Spring, Chmielewski also presented a workshop on techniques for collection and analysis of learning assessments for equity studies at the Interamerican Development Bank.

I have spent much of the last year working with my staff and graduate students at Michigan State University to further the work of the College Ambition Program (CAP). With the help of Jaime Puccioni, PATHWAYS Associate Post Doctorate Fellow, who served as Director of Research, CAP implemented additional data collection techniques. One new technique was "the nudge experiment", in which students were randomly selected to receive text messages informing them of upcoming college application deadlines and encouraging them to visit CAP. This experiment was piloted in four of the seven current CAP schools, and will hopefully be repeated in the 2013-2014 school year. This summer, I was awarded additional funds from the Michigan Association of Intermediate School Administrators (MAISA) and the Michigan Department of Education (MDE) to expand my work with CAP to eight additional high schools, some of which will be in Detroit, Michigan this coming school-year.

I continued my work with the assistance of Elizabeth Covay, PATHWAYS Associate Postdoctoral Fellow on the Michigan Consortium for Education Research (MCER). The work on MCER has brought national attention as one of the most successful collaborative consortiums working to solve major educational policy questions. This past fall, MCER hosted a major conference presenting the first round of findings from this work and included participants from national and state education policy and research fields. Covay and I are working with the Institute for Social Research (ISR) at the University of Michigan to collect transcript data from a sample of 150 high schools in the state of Michigan. This work will inform the study of the Michigan Merit Curriculum which was implemented in 2006.

## Principal Investigators

### Ingrid Schoon



Prof. Ingrid Schoon is the Director of the PATHWAYS International Fellowship Programme, and Research Director of the Centre for the Study of Youth Transitions (CAYT) funded by the UK Department for Education. Her research is focused on variations in transitions from dependent childhood to independent adulthood, in particular the study of transitions from school to work, social inequalities in aspirations, attainment, and health, as well as the study of risk and resilience and how to overcome potentially adverse circumstances.

#### Summary of recent work

During 2012/3, together with colleagues from the Centre for the Analysis of Youth Transitions (CAYT), I published a report on the intergenerational transmission of worklessness, as well as a number of papers on uncertainty in career aspirations (with Leslie Gutman and Ricardo Sabates) reflecting on the uncertain situation of young people negotiating the transition into employment during a difficult economic situation, and other papers on career development and the transition to adulthood in times of social change. In October 2012, I gave a key note lecture at the SRCD conference on the Transition to Adulthood in Tampa, Florida, and in June 2013 I gave a keynote lecture for the 2013 International LIVES Conference on 'Resources in Times of vulnerability' at the University of Geneva. I organised an international workshop on young people in the great recession in London (March 2013) and was asked to run a seminar on the same topic for the UK Cabinet office (April 2013). I have been appointed as a member of the academic advisory board for the German Youth Institute (DJI) Surveys: Aufwachsen in Deutschland: Alltagswelten (AID:A) and the German Family Panel PAIRFAM ("Panel Analysis of Intimate Relationships and Family Dynamics"). I am also a member of the review panel for the Swiss National Centre of Excellence (NCCR) "LIVES. During June and July 2013 I was invited Research Fellow at the Wissenschaftszentrum Berlin (WZB).

#### As a mentor within PATHWAYS

I am currently mentoring two PATHWAYS Fellows, John Jerrim (who has now been appointed as a lecturer in Economics and Social Statistics at the Institute of Education, University of London), and Nicola Pensiero who is working on a project examining the intergenerational transmission of learning engagement. Kathryn Duckworth, who was a Fellow until August 2012 is now Co-Investigator of the Longitudinal Study of Young People in England (LSYPE) which is hosted by the Institute of Education. I am collaborating with Jacque Eccles, Martin Obschonka, Phil Parker, Katariina Salmela-Aro, Rainer K.Silbereisen and Ulrich Trautwein on questions regarding career aspirations and their realization in different contexts.



## Principal Investigators

### Rainer K. Silbereisen



Rainer Silbereisen is Research Professor of Developmental Psychology and Director of the Center for Applied Developmental Science (CADS) at the University of Jena (Germany). He was Professor and Head of the Department of Developmental Psychology at Jena, and Adjunct Professor of Human Development and Family Studies at the Pennsylvania State University (USA). He is Fellow of the American Psychological Association and Member of the European Academy of Sciences (London). He was Editor of the International Journal of Behavioural Development and of the journal *European Psychologist*. He was Chair of the Board of the German Social Science Infrastructure Services (GESIS), is a former President of the German Psychological Society and of the International Society for the Study of Behavioural Development (ISSBD). He was, until recently, President of the International Union of Psychological Science (IUPsyS) and is now Past-President. A psychologist by training, he has been involved in interdisciplinary large scale research on human development across the life-span, and in particular on the role of social change in positive and maladaptive human development, utilizing a cross-cultural and biopsychosocial format. With the help of private foundations, he has established training programs for young investigators from developing countries. He has edited about 20 books and published more than 250 scholarly articles

#### Summary of recent work

My work within PATHWAYS reflects my general research topics and interest. Based on a developmental-contextualist framework of human behaviour and development, the main aim is a better understanding of the role of social and economic change for human behaviour and development by large-scale research projects that were part of a 12-year priority research network (SFB) funded by the German Research Foundation (DFG). To that end, I have been collaborating within and outside the consortium with scientists from a range of disciplines. The results lead to international publications in journals and books. The main insight refers to the fact that it is the change of social institutions such as school, work, and family that “trickles down” across various proximal contexts and then influences development tasks through attempts to cope with the mismatch between old habits and new demands. This work combines ecological and developmental models within a social science framework. Beyond the research as such, the results gave the start to a new initiative (“transfer project, also funded by DFG) to utilize the German and international experience with political, economic and social transition and transformation post-1989 for possible similar radical changes in regions such as the Korean peninsula. A series of workshops with government ministers and staff from South Korea has already been accomplished, and more is up for the near future. This will be an excellent opportunity for PATHWAYS fellows to learn about translational research, in-field application, and policy advice based on research evidence.

#### As a mentor within PATHWAYS

I have been concentrating on the research topics and data sets that the group at the Center for Applied Developmental Science (CADS) has brought to the PATHWAYS consortium. The key topic considered has been entrepreneurship, especially its early precursors in social development, and its association on the regional level with particular personality patterns. The young investigator I have been collaborating most within the consortium is alumnus fellow Martin Obschonka. I have also collaborated with other current fellows and faculty, from affiliated research groups in other fields such as economics and countries such as the USA. Beyond entrepreneurship, the data sets mainly refer to social and political change in Germany and Poland, and here I have been working with a large group of people from several universities, including Jena, on which resources people use when dealing with challenges induced by macro level change, and what the precursors of civic engagement are in various periods of the lifespan. These works were accomplished with likely future fellows of PATHWAYS and again a large number of collaborators, including alumnus fellows of the consortium. Beyond my direct involvement in research and publication, I have been busy in supporting young investigators’ applications for extramural funding, placing invited symposia and special issues of scientific journals, and in developing a qualification profile that increases the likelihood of achieving a career in basic and applied science.

## Principal Investigators

### Ulrich Trautwein



Professor Trautwein is the Head of the Center for Educational Science and Psychology at the University of Tübingen. He is the director of two multi-cohort longitudinal studies on school achievement, development of personality, and transition to the labour market or tertiary education: the project on Transformation of the Secondary School System and Academic Careers (TOSCA) and the study on Tradition and Innovation in the structure and organization of schooling (TRAIN). He is also a PI in the German National Educational Panel Study (MEPS). His main research interests include educational transitions, the effects of different learning environments on self-concept, interest and personality development, and the role of self-related cognitions in students' homework behavior.

#### Summary of recent work

Over the last year, I have been heavily engaged in capacity building activities which have a direct impact on PATHWAYS related research. Along with colleagues at University of Tübingen, we started a new Graduate School on Learning, Educational Achievement and Life Course Development, which is funded by the Excellence Initiative of the Federal and State Governments in Germany.

I am also the Chair of the recently launched educational research network in the State of Baden-Württemberg (funded by the Baden-Württemberg Foundation) which will focus school-to-work transitions. In terms of research projects, my work has mostly been concerned with educational transitions, the development of motivation at school, and the effects of different learning environments on achievement, aspirations, and choices.

#### As a mentor within PATHWAYS

Over the last year, I have been mentoring Richard Göllner and Anna-Lena Dicke, two PhD candidates who were selected to join PATHWAYS. Several collaborative projects with PATHWAYS PIs and Fellows were started or continued, including collaborations with the University of Helsinki, the Institute of Education London, the University of Jena, and the University of Michigan. A number of papers that were co-authored with our prior Fellow, Philip Parker, were accepted in leading journals in the field.



PATHWAYS 9th workshop in Tübingen, Germany in May 2013





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