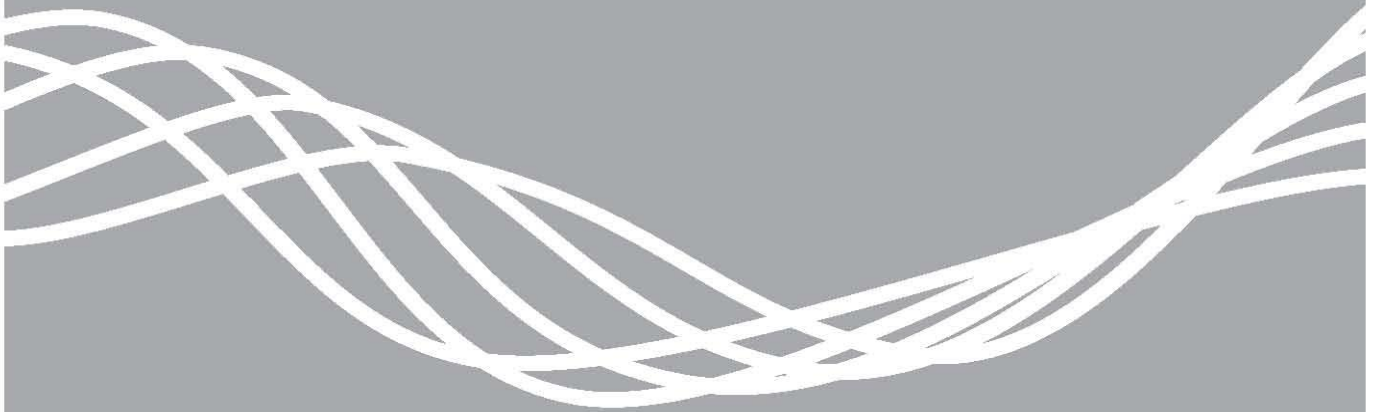




ANNUAL REPORT

13/14





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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, and Tübingen. The mission of the programme is to promote the next generation developmental scientists and to 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 at the University of London, but many of the 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 and PIs



PROGRAMME ACTIVITIES

PATHWAYS TO ADULTHOOD: Programme Activities

Programme Activities during 2013/14

During 2013/14 we held two international workshops in Windsor Great Park near London. 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). Having overlapping cohorts of already experienced and fully engaged Fellows and 'newcomers' with fresh ideas and research plans creates a stimulating and invigorating research environment, and is one of the advantages of running a continuing network. The 'newcomers' can benefit from the already existing infrastructure and are mentored both by the Principal Investigators and the already existing cohort of Fellows.

At the meetings we held a number of method workshops, with an additional method workshop and conference, which were organised by the PATHWAYS team at the University of Helsinki. Furthermore, two issues of the PATHFINDER, our newsletter, were published: one on using evidence from the PISA study, and one on motivation and wellbeing.

The current group of PATHWAYS Fellows have demonstrated outstanding productivity: 31 articles have been published in learned journals (including high impact publications in American Journal of Education, European Sociological Review, Journal of Educational Psychology, Journal of Personality, Journal of Vocational Behavior, Learning and Individual Differences, the BMJ and others) 8 are currently in press, and 6 are accepted for publication. Furthermore, 17 papers are currently in preparation and 15 are under review.

The Fellows gave 80 presentations at national and international research meetings and have organised symposia at the 2014 American Education Research Association (AERA) conference in Philadelphia, the International Society for the Study of Behavioural Development (ISSBD) conference in Shanghai and the International Congress of Applied Psychology (ICAP) in Paris.

PATHWAYS TO ADULTHOOD: Programme Activities

Public Recognition

A number of our Fellows were successful in gaining independent research funding in highly competitive settings:

John Jerrim obtained funding from the OECD, the Education Endowment Foundation and the ESRC for his research which involves designing and evaluating Randomised Controlled Trials in over 100 English primary schools and secondary analysis of large scale international assessments (e.g. PISA and PIAAC).

Martin Obschonka received funding from the Jacobs Foundation for a project examining the development of balanced skills among entrepreneurs and from the Fritz Thyssen Foundation to examine regional differences in entrepreneurial behaviour.

Florencia Sortheix was awarded the prestigious Ella and George Ehrnröth post-doctoral research grant.

Meeta Banerjee received a minority training grant from the National Institute of Health, US.

Jaana Viljaranta was awarded a travel grant from the Technical University, Berlin.

Heta Tuominen-Soini was Primus Doctor (Valedictorian) at the conferment ceremony of the Faculty of Philosophy at the University of Helsinki.

In addition Philip Parker was awarded the prestigious Discovery Early Career Researcher Award from the Australian Research Council to conduct research on "Closing the Disadvantaged Gap: Self-Beliefs and Task Value as Drivers of Educational Choices During the Post High School Transition". Furthermore, he together with Herbert Marsh and Alex Morin has been awarded funding by the Australian Government for a 3 year project: "Making Australia internationally competitive: driving educational attainment by academic motivation, self-concept, engagement and aspirations".

The work of the Fellows featured strongly in the national and international media. For example John Jerrim's research was picked up by The New York Times, the Sunday Times, the Daily Mirror, the Guardian, the Daily Telegraph, the Huffington Post, CNBC, BBC and the Voice of Russia. Martin Obschonka's research was reported in Der Tagesspiegel, Harvard Business Review, BBC as well as on Bloomberg TV and several radio broadcasts. Beth Covay had her work discussed in Fortune Magazine and Heta Tuominen-Soini's research was reported on several Finnish research websites and blogs.

Our alumni were successful in finding new career opportunities, and will continue to be engaged in activities of the PATHWAYS programme. In April 2014 Martin Obschonka accepted the position of Assistant Professor of Entrepreneurship and Innovation Psychology at Saarland University, Germany. Anna Katyn Chmielewski has accepted a tenure-track assistant professorship of Educational Leadership and Policy at the Ontario Institute for Studies in Education, University of Toronto. In September 2014 Beth Covay joins the faculty of National Louis University in Chicago as Assistant Professor in the Educational Leadership Program in the National College of Education. Also in September 2014 John Jerrim was promoted to a Readership in Education and Social Statistics at the IoE, London. Philip Parker has secured a new position with the Institute for Positive Psychology and Education, Australian Catholic University, and was awarded funding from the Australian Research Council for his work on positive youth development. Julia Dietrich is pursuing her Habilitation at the University of Jena with the aim to apply for full professorial positions and Ming-Te Wang is now a Full Professor in the Applied Developmental Psychology Program at the University of Pittsburgh. The Alumni will continue to be engaged in activities of the PATHWAYS programme, demonstrating the cascading impact of our programme on a global scale.

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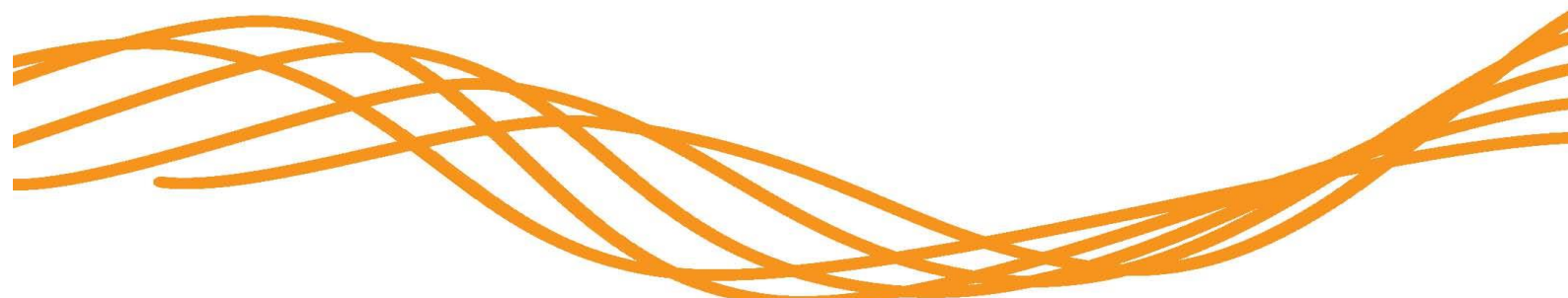
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Post-doctoral Fellows

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 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. I joined the PATHWAYS programme in September 2012.

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, a process 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. In my own work, I have found that parents' messages and behaviours related to race and ethnicity can buffer the detrimental effects of community violence on African American youth's mental health. Moreover, utilizing data from the Maryland Adolescent Development in Contexts (MADICs), results show that both parent and youth reports of race-related messages can offset the influence of racial discrimination on their self-esteem, depressive symptoms and anger across time.

Currently, I have been also awarded a minority supplement training grant from the National Institutes of Health in the United States to examine racial socialization profiles. I will be moving to the University of California-Irvine to continue my work with Dr. Jacquelynne Eccles utilizing three longitudinal datasets, MADICS, Childhood and Beyond (CAB) and the Michigan Study for Adolescent and Adult Life Transitions (MSALT). I am also beginning to collaborate with Clemens Lechner from University of Jena, studying the relationships between religiosity and youth development outcomes by comparing samples from Poland and the United States. Additionally, I will be working with Ingrid Schoon and John Jerrim at the Institute of Education at the University of London, investigating the effects of racial discrimination and socialization behaviours in ethnic minority youth and families within the Longitudinal Study of Young People in England (LSYPE). My hope is to gain a deeper understanding of how these processes (e.g. racial socialization, religiosity, general socialization) may be related to youth trajectories across the developmental life span around the world.

Post-doctoral Fellows

Meeta Banerjee

Recent Publications

Peck, S., Brodish, A., Malanchuk, O., **Banerjee, M.** & Eccles, J., (in press). Racial ethnic socialization and identity development in Black families: The role of parent and youth reports. *Developmental Psychology*

Banerjee, M., Rowley, S.J. & Johnson, D.J. (in press). Community violence and racial socialization: Their influence on psychological well-being of African American college students. *Journal of Black Psychology*.

Banerjee, M., Meyer, R.M. & Rowley, S.J. (in press) Parental experiences with discrimination and depression: Predictors of academic efficacy in African American families. *Journal of Family Issues*.

Matthews, J.S., **Banerjee, M.**, & Laueremann, F. (accepted) Academic identity among ethnic-minority youth: The role of the “self” between internal and external perceptions of identity.

Banerjee, M. & Eccles, J.S. (in prep). The impact of racial discrimination and racial socialization on mental health in African Americans.

Banerjee, M., Smalls, C. & Eccles, J.S. (in prep). Neighborhood problems and racial socialization as predictors of psychological well-being in African Americans.

Banerjee, M., Laueremann, F. & Eccles, J.S. (in prep). Parenting styles and academic socialization as predictors of science and math-related activities in children.

Banerjee, M., Rivas-Drake, D., Glover-Smalls, C., & Matthews, J.S. (in prep). Academic engagement as a mediator of cultural socialization and academic achievement.

Osai, E., **Banerjee, M.** & Eccles, J.S. (in prep). Profiles of academic motivation in African American youth and its relationship to academic engagement and achievement.

Dissemination

- Eccles, J.S., Wang, M., Tsai, Y.M. & **Banerjee, M.** (2014, April). Gender segregation across the sciences. In J. Robinson & S. Lubienski (chairs) Factors influencing female participation in STEM fields: New insights from longitudinal data. Paper presented at the American Education Research Association, Philadelphia, PA.
- **Banerjee, M.**, Malanchuk, O., Wittrup, A., Lucaj, L. & Eccles, J.S. (2014, March). Exploring the intersections of race and gender in socialization processes related to STEM in African American and European American youth. Poster presented at the Society for Research on Adolescence, Austin, TX.

Post-doctoral Fellows

Jenna Cambria

I am a postdoctoral scholar at the Center for Educational Science and Psychology at the University of Tübingen working with Dr. Ulrich Trautwein. I completed my PhD in September 2013 working with Drs. Allan Wigfield and John Guthrie. I joined the PATHWAYS programme in May 2013.



Research Plan

My first line of research was focused on creating valid and reliable motivation assessments. The result of this work was a multidimensional survey of reading motivation that cuts across some of the most relevant motivational theories and has been used in a large-scale intervention study. My dissertation was focused on why students who value and expect to do well in reading perform better than students who are less motivated. I hypothesized that the reason why motivated students perform better than less motivated students is because they are more engaged. My work has shown that cognitive engagement, defined as effort (e.g., rereading an informational text to get a more complete understanding), is indeed a mediator for motivation and performance.

I am currently a member of the Motivation in Mathematics Project (MoMa) and my work will include writing a new measurement of student engagement, analyzing datasets such as the TOSCA (Transformation of Secondary School and Academic Careers) study, and collaborating on new projects that focus better understanding the motivational antecedents of students' vocational interest and career aspirations. My work in the PATHWAYS project will focus on the influences on motivation, and the role of motivation as a predictor of a variety of outcomes such as achievement, academic choices, and career aspirations.

I plan to continue with research and apply for tenure track research positions. My position with Pathways will be a strategic avenue for my future success in performing cutting edge research in educational psychology. I will continue working with Dr. Trautwein for the next year performing large-scale quantitative research that is designed to better understand students' motivation and career aspirations, increasing student achievement in educational psychology.

Recent Publications

Cambria, J., Nagengast, B., Trautwein U. (in prep) Little fish in big ponds think about work: Students in higher achieving schools have lower vocational interest in STEM fields. *Journal of Educational Psychology*.

Cambria, J. & Dicke, A. (in prep). Rethinking Behavioral Engagement. (Pathways book chapter)

Cambria, J., Nagengast, B., Trautwein, U. (2014). Frame-of-reference Effects of Peer Achievement on Students' Values in Mathematics and English. Paper presented at the 2014 biannual meeting of the International Conference on Motivation, Helsinki, Finland.

Cambria, J. & Guthrie, J. T. (submitted). Measuring Reading Motivation for Informational Texts. Paper presented at the 2014 annual meeting of the American Educational Research Association, Chicago, IL.

Cambria, J., Nagengast, B., Trautwein, U. (submitted). Big Fish Little Pond and STEM Vocational Interest. Paper presented at the 2014 annual meeting of the American Educational Research Association, Chicago, IL.

Dissemination

Cambria, J. & Wigfield, A. (2014). Change in Values during Traditional Instruction and Concept Oriented Reading Instruction. Paper presented at the 2014 annual meeting of the American Educational Research Association, Philadelphia, PA.

Post-doctoral Fellows

Anna K Chmielewski

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 examines macro-level trends in educational inequality, both cross-nationally and over time. Specifically, I am interested in socioeconomic disparities in academic achievement, school segregation, curricular tracking/ability grouping and university access, as well as the consequences of childhood inequality for adult skills, educational attainment and income. I use a sociological lens and quantitative methods, including hierarchical linear modeling and methods for measuring segregation and achievement gaps. Much of my research draws on data from large-scale cross-national assessments, such as the Programme for International Student Assessment (PISA), the Trends in

International Mathematics and Science Study (TIMSS) and the Programme for the International Assessment of Adult Competencies (PIAAC).

In spring 2014, I was offered and accepted a position as tenure-track Assistant Professor of Educational Leadership and Policy in the Ontario Institute for Studies in Education (OISE) at the University of Toronto. I began the position in July 2014, thus my Pathways fellowship ended in June 2014. My position at OISE is tasked with teaching and conducting research on large-scale data analysis in educational leadership, policy and equity. I am excited to begin a new position in a new country and to put to use the excellent training I gained in the Pathways programme in using quantitative methods to study youth transitions, to maintain the professional relationships and collaborations I developed in Pathways and to continue to seek out new opportunities for cross-national and interdisciplinary collaboration.

Post-doctoral Fellows

Anna K Chmielewski

Recent Publications

Jerrim, J., **A.K. Chmielewski**, and P. Parker. (Revise & resubmit). "Socioeconomic Inequality in Access to High Status Colleges: A Cross-Country Comparison."

Chmielewski, A.K. and C. Savage. (Forthcoming, 2015). "Socioeconomic Segregation Between Schools in the US and Latin America, 1970-2012." To be published in *Land and the City: Proceedings of the 2014 Land Policy Conference*, edited by George McCarthy and Samuel Moody. Cambridge, MA: Lincoln Institute of Land Policy.

Chmielewski, A.K. (2014). "An International Comparison of Achievement Inequality in Within- and Between-School Tracking Systems." *American Journal of Education* 120(3): 293-324.

Chmielewski, A.K., H. Dumont, and U. Trautwein. (2013). "Tracking Effects Depend on Tracking Type: An International Comparison of Mathematics Self-Concept." *American Educational Research Journal* 50(5): 925-957.

Dissemination

- Chmielewski, A.K. and C. Savage. "Socioeconomic Segregation Between Schools in the US and Latin America, 1970-2012." Invited presentation at 9th Annual Lincoln Institute of Land Policy Conference, *Land and the City*, June 2-3, 2014, Cambridge, MA.
- Chmielewski, Anna K. "Changes in Socioeconomic Achievement Gaps in International Comparison, 1964-2012." Invited presentation at Education Policy Studies seminar at the Pennsylvania State University, Apr. 8, 2014.
- Chmielewski, A.K. "Changes in Socioeconomic Achievement Gaps in International Comparison, 1964-2012." Paper presented at 2014 AERA Annual Meeting, Apr. 3-6, 2014, Philadelphia, PA.
- Chmielewski, A.K. "Changes in Socioeconomic Achievement Gaps in International Comparison, 1964-2012." Paper

presented at 2014 CIES Annual Meeting, March 10-15, 2014, Toronto, Ontario.

- Chmielewski, A.K. "Changes in Socioeconomic Achievement Gaps in International Comparison, 1964-2012." Paper presented at Midwest Sociology of Education Conference, Nov. 8-9, 2013, Madison, WI.
- Chmielewski, Anna K. "Educational Excellence and Equity in International Comparison: Complementary, Contradictory, or Unrelated?" Paper presented at 2013 ASA Annual Meeting, Aug. 10-13, 2013, New York, NY.

Dissemination (Impact)

- Willingham, D. (Sep. 30, 2013). "The Association of Tracking and Math Self-Concept." Daniel Willingham Science and Education Blog. Available at: <http://www.danielwillingham.com/daniel-willingham-science-and-education-blog/the-association-of-tracking-and-math-self-concept>
- de Dios, A.C. (Oct. 5, 2013). "To Track or Not To Track?" Philippine Basic Education Blog. Available at: <http://philbasiceducation.blogspot.ca/2013/10/to-track-or-not-to-track.html>
- Yettick, H. (May 14, 2014). "Regardless of Its Form, Tracking is Inequitable, PISA Analysis Finds." Inside School Research blog, Education Week. Available at: http://blogs.edweek.org/edweek/inside-school-research/2014/05/world_tracking.html
- June 2014 – interviewed by William Smith for article in *AJE Forum*: Smith, W. (Forthcoming, 2014). "Tracking and Streaming in an International Perspective: An Interview with Dr. Anna K. Chmielewski." *AJE Forum*. Available at: <http://www.ajeforum.com/> Here is a bit more about the *AJE Forum* (the *Forum* of the *American Journal of Education*) from their website (www.ajeforum.com): The *AJE Forum* is run by the Student Advisory Board, and is designed to act as a companion website to the journal. It is a space for new and revisited educational issues to be highlighted and discussed.

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. As of September 2014 I will join the lab of Prof. Jacque Eccles in Irvine, California



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.

I recently accepted a position as a postdoctoral Fellow at the University of California at Irvine with Prof. Eccles, which is a great opportunity to further my research on the influence of the school environment, particularly the instructional environment, using longitudinal datasets that track students well into adulthood. I will be able to look at potential long-term effects of the type of school environment students experienced on their educational and career choices as well as on their well-being and motivation later in life. This will bring me a step closer to better understanding the underlying mechanisms determining students' educational pathways in different contexts.

Research Plan

In the past year as a PATHWAYS Fellow, I have extended my work on the influences of the school environment on students' interests and motivation. I have been highly involved with an intervention study aiming to foster secondary school students' motivation for mathematics and their achievement by demonstrating the utility of mathematics for the students' future life. Our research results provide further information about the type of instruction that is conducive to a positive development of students' engagement and motivation. As part of my work, I have also been involved in the development of new motivational measures to better assess and understand the quality and the dynamics of students' motivation and engagement.

I also have been engaging in several collaborations with current PATHWAYS fellows. Along with Julia Dietrich at the University of Jena, I looked at how teachers' supportive behaviour influences students' motivation across different domains to investigate whether different instructional environments interact differently with students' motivation in different domains. A manuscript has now been submitted for publication. In addition, I have been collaborating with Katariina Salmela-Aro and Heta Tuominen-Soini at the University of Helsinki. During a research visit at Helsinki, the assessment of subjective task value using the instrument developed at the University of Tübingen with a Finnish sample was discussed, and a translation prepared. The data has now been collected, which will allow for an international comparison of subjective task values in different subjects and their development across time using Finnish and German datasets.

Post-doctoral Fellows

Anna-Lena Dicke

Lastly, I have been involved in the organization of research symposia at the Annual Meeting of the American Educational Research Association (AERA) and at the International Conference of Motivation (ICM) to enable discussion and dissemination of research on student motivation and its development done by current PAHWAYS fellows in the US, Finland and Germany.

Recent Publications

- Wagner, W., Rose, N., **Dicke, A.-L.**, Rosenberg, F., Neumann, M. & Trautwein, U. (2014). Alle alles lehren: Schulleistungen in Physik, Mathematik und Englisch vor und nach der Neuordnung der gymnasialen Oberstufe in Sachsen [Teaching everything to everyone: Achievement in physics, mathematics and English before and after the reform of upper secondary schools in the German state of Saxony]. *Zeitschrift für Erziehungswissenschaft*.
- 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 & F. Guay (Eds.), *Theory Driving Research: New wave perspectives on self-processes and human development* (pp. 233-249). Charlotte, NC: Information Age Publishing.
- Schreier, B., **Dicke, A.-L.**, Gaspard, H., Häfner, I., Flunger, B., Nagengast, B., & Trautwein, U. (in press). Der Wert von Mathematik im Klassenzimmer: Die Bedeutung relevanzbezogener Unterrichtsmerkmale für die Wertüberzeugungen der Schülerinnen und Schüler. [The value of mathematics in the classroom: The importance of a relevance-oriented teaching environment for students' value beliefs]. *Zeitschrift für Erziehungswissenschaft*.
- Trautwein, U., Dumont, H. & **Dicke, A.-L.** (in press). Schooling: Impact on Cognitive and Motivational Development. In *International Encyclopedia of Social & Behavioral Sciences* (2nd Ed.).
- Gaspard, H., **Dicke, A.-L.**, Flunger, B., Schreier, B., Häfner, I., Trautwein, U., & Nagengast, B. (accepted). More value through greater differentiation: Gender differences in value beliefs about math. *Journal of Educational Psychology*.
- Dicke, A.-L.**, Nagengast, B. & Trautwein, U. (submitted). The many ways supportive teachers matter. Differential effects of teacher support on student engagement.
- Dicke, A.-L.**, Trautwein, U., Nagengast, B. & Wagner, W. (submitted). Consequences of mandatory course enrollment for students' interest in the natural sciences.
- Dietrich, J., **Dicke, A.-L.**, Kracke, B. & Noack, P. (submitted). Teacher Support and Its Influence on Students' Intrinsic Value and Effort: Contrast Effects Across Domains.
- Dicke, A.-L.**, Trautwein, U. & Nagengast, B. (revise and resubmit). Hauptschüler = desinteressiert und faul? Schulformunterschiede in der Entwicklung von Interesse und Anstrengungsbereitschaft [School type differences in the development of interest and effort]. *Zeitschrift für Erziehungswissenschaft*

Dissemination

- Dicke, A.-L., Gaspard, H., Häfner, I., Schreier, B., Flunger, B., Nagengast, B. & Trautwein, U. (2014, April 3- 7). Increasing students' subjective task value in mathematics: Applying utility value interventions in the classroom setting. Paper presented at the Annual Meeting of the American Educational Research Association (AERA), Philadelphia, Pennsylvania, USA.
- Dicke, A.-L., Nagengast, B., Nagy, G., & Trautwein, U. (2013, April 27- Mai 1). Differential effects of a supportive student-teacher relationship on student engagement. Poster presented at the Annual Meeting of the American Educational Research Association (AERA), San Francisco, California, USA.

Post-doctoral Fellows

Richard Göllner

I am a post-doc Fellow at the Center for Educational Science and Psychology at the University of Tübingen. I received my PhD in Psychology from the University of Tübingen and joined the PATHWAYS programme in July 2014.



Research Plan

My main research interests concern the emotional well-being of children and adolescents, and personality development in the transitional period from childhood to adolescence. I am interested in understanding the relation between individuals' personality (e.g., in terms of the Big Five), educational contexts and emotional well-being outcomes like depression or anxiety. A major focus of my recent work is to better understand whether and how personality traits do change including the association between educational experiences and changes in personality traits.

I am also interested in the implementation of school-based programs to prevent mental health problems. I am particularly involved in researching teacher/classroom factors that increase teachers' implementation fidelity and the sustainability of programs.

I am currently involved in a psychometric project, which investigates the validity of student ratings of instructional quality. This includes research about the dimensionality of student ratings and their generalizability across subjects, classrooms, and measurement occasions. Within this project I also became interested in the connection between linguist item features in survey questionnaires and the psychometric properties of student ratings. In my future research as a PATHWAYS Fellow, I will be continuing with my research in these areas. In order to further my work in the field of personality development I plan a two-month research stay at the University of Illinois at Urbana-Champaign (Department of Psychology, Prof. Brent W. Roberts).

Publications

Goellner, R. Werth, S., Wagner, W., Göllner, R., Voss, T., Schmitz, B., Trautwein, U. (submitted). Differentiating overall agreement and occasion specific-effects in teacher/student ratings of instructional quality: Time consistency, agreement, and predictive power. *Journal of Educational Psychology*.

Göllner, R., Roberts, B.W., Damian, R.I., Lüdtke, O., Jonkmann, K., & Trautwein, U. (submitted). Whose storm and stress is it? Parent and child reports of personality development in the transition to early adolescence. *Journal of Personality*.

Göllner, R. (2014). Mental health and its impact on social inequality: A review. *Zeitschrift für Erziehungswissenschaft*, 17, 281–297.

Kohler, B. & **Göllner, R.** (2013). Individual differences in time-on-task: A within and between classroom perspective. *Zeitschrift für Unterrichtswissenschaft*, 41 (4), 363-380.

Probst, T., Lambert, M.J., Loew, T.H., Dahlbender, R.W., **Göllner, R.** & Tritt, K. (2013). 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*, 75(3), 255-261.

Wagner, W., Göllner, R., Helmke, A., Trautwein, U., & Lüdtke, O. (2013). Construct validity of student perceptions of instructional quality is high, but not perfect: Dimensionality and generalizability of domain-independent assessments. *Learning and Instruction*, 28, 1-11.

Dissemination

- Göllner, R., Wagner, W., Klieme, E., & Trautwein, U. (2014, March 3-5). Assess teacher's instructional quality by student ratings: Preliminary results from a review of national survey questionnaires. 2nd Conference of Society for Empirical Education Research (GEBF), Frankfurt, Germany.
- Göllner, R., Wagner, W., & Trautwein, U. (2013, March 11-13). Students' idiosyncratic perceptions of teaching quality: Individual judgment tendency or expression of student's needs. 1st Conference of Society for Empirical Education Research (GEBF), Kiel, Germany.

Post-doctoral Fellows

John Jerrim

I became a PATHWAYS Fellow in April 2012 after completing my PhD in 2011 at the University of Southampton. In October 2012 I became a Lecturer in Educational and Social Statistics at the Institute of Education, and in August 2014 I was promoted to a Readership. 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. In October 2013, I was awarded a prestigious OECD Thomas J. Alexander fellowship to complete a one month secondment to the OECD in Paris.

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 OECD, the Education Endowment Foundation and the ESRC. This involves designing and evaluating Randomised Controlled Trials in over 100 English primary schools and secondary analysis of large-scale international assessments (e.g. PISA and PIAAC). 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.

Recent Publications

Jerrim, J. and Micklewright, J. (Forthcoming). '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. (2014) 'The socio-economic gradient in children's reading skills and the role of genetics.' *British Education Research Journal* DOI: 10.1002/berj.3143

Jerrim, J. and Choi, A. (2014) 'The mathematics skills of school children: how does the UK compare to the high performing East Asian nations?' *Journal of Education Policy* 29(3): 349-76.

Jerrim, J.; Chmielewski, K. and Parker, Phil. (Under review). Socioeconomic inequality in access to "high-status" colleges: a cross-country comparison of primary and secondary effects. *American Education Research Journal*

Parker, P.;

Jerrim, J.; Schoon, I.; and Marsh, H. (Under review). Does tracking make a difference? A multinational study of socio-economic inequality in high school choices. *American Education Research Journal*

Jerrim, J. and Vignoles, A. (Under review). University access for disadvantaged children: A comparison across English speaking countries. *Higher Education*

Jerrim, J. (Under review). The link between family background and later lifetime income: how does the UK compare to other countries? *Fiscal Studies*.

Jerrim, J. and Macmillan, L. (Under review). Income inequality, intergenerational mobility and the Great Gatsby Curve: is education the key? *Social Forces*

Jerrim, J. (Under review). Why do East Asian children do so well in PISA? An investigation of western children of East Asian descent. *Oxford Review of Education*.

Jerrim, J.; Choi, A. and Rodriguez, R. (In preparation). Cross-national comparisons of intergenerational mobility: are the earnings measures used robust?

Dissemination

- October 2013. OECD meeting in Bucharest, Romania. International meeting discussing the TALIS 2013 report for England.
- November 2013. Access to elite higher education institutions. Presentation at the Sutton Trust conference. (<http://www.suttontrust.com/news/events/advancing-access-and-admissions-summit/programme/>)
- November 2013. Social mobility and the Child Poverty Commission. Presentation on educational trajectories and genetics. (<http://www.bristol.ac.uk/cmpo/events/2013/socialmobility/conferenceprogramme.pdf>)
- November 2013. OECD. Meeting to discuss the link between income inequality and intergenerational mobility.

Post-doctoral Fellows

John Jerrim

- December 2013. Education Select Committee. Oral evidence on socio-economic disadvantage and educational attainment from PISA.
- December 2013. Education Select Committee. Written evidence on socio-economic disadvantage and educational attainment from PISA.
- December 2013. Education Media Centre. Education and genetics – media briefing.
- February 2014. Socio-economic differences in educational attainment. Invited seminar in Portcullis House by Frank Field MP.
- February 2014. Social mobility and education. All Souls meeting, Oxford.
- March – May 2014. Secondment to the Organisation for Economic Co-operation and Development (OECD). Paris.
- June 2014. Speaker at the Education Endowment Foundation evaluator's conference.
- July 2014. Keynote Speaker at the Government Statistical Service annual conference

Dissemination (Impact)

CNBC: Asian countries dominate global education ranking (8 May 2014)
<http://www.cnbc.com/id/101654608>

Voice of Russia: No link between genes and reading ability (30 Apr 2014)
http://voiceofrussia.com/uk/news/2014_04_30/No-link-between-genes-and-reading-ability-study-6469/

BBC Online: OECD 'debunks myth' that poor will fail at school (4 Feb 2014)
<http://www.bbc.co.uk/news/education-26015532>

The New York Times: Measuring the wealth effect in education (1 Dec 2013)
http://www.nytimes.com/2013/12/02/world/europe/measuring-the-wealth-effect-in-education.html?hpw&rref=education&_r=0

BBC News 24: Live interview regarding PISA 2012 results for the UK (1 Dec 2013)

Radio 4: PISA – global education tables tested (25 Nov 2013)
http://www.bbc.co.uk/iplayer/episode/b03j9mx2/PISA_Global_Education_Tables_Testeds/

The Sunday Times: Students off to cheap US (10 Nov 2013)
http://www.thesundaytimes.co.uk/sto/news/uk_news/Education/article1338672.ece

The Daily Mirror: Working class teenagers being kept out of top universities (13 Nov 2013)
<http://www.mirror.co.uk/news/uk-news/working-class-teenagers-being-kept-out-2785447>

The Guardian: Working-class students shun top universities, says study (13 Nov 2013)
<http://www.theguardian.com/education/2013/nov/13/working-class-students-shun-top-universities>

BBC: Poor pupils with good grades 'miss top universities' (13 Nov 2013)
<http://www.bbc.co.uk/news/education-24917394>

The Daily Telegraph: Access to top universities 'still linked to family income' (13 Nov 2013)
<http://www.telegraph.co.uk/education/universities/education/10444863/Access-to-top-universities-still-linked-to-family-income.html>

Times Higher Education: Access gap 'not completely explained by grades' (13 Nov 2013)
<http://www.timeshighereducation.co.uk/news/access-gap-not-completely-explained-by-grades/2008993.article>

Huffington Post: Working class teens shun top universities, study suggests US institutions are cheaper (13 Nov 2013)
<http://www.huffinatonpost.co.uk/2013/11/13/worki>

Post-doctoral Fellows

Clemens Lechner

I am a postdoctoral fellow at the Center for Applied Developmental Science (CADS) at the University of Jena, Germany, where I am working with Rainer K. Silbereisen. I joined the PATHWAYS programme in January 2014.



As a developmental psychologist and sociologist by training, I am interested in human development in times of social and economic change. In my research, I explore how current societal trends, such as globalization or pluralization, impact on individual development. More specifically, I want to learn why some people manage to cope successfully with the challenges that arise from these trends while others are at elevated risks of distress. Currently, I am most interested in the potential role of religiosity in dealing with these challenges.

Research Plan

Life in modern societies is rife with uncertainties but also full of new opportunities. My research seeks to understand why some people falter and are overwhelmed by the uncertainties while others thrive and embrace the new opportunities. My research comprises three interconnected strands. First, I look at how perceived uncertainties (e.g., occupational uncertainty) and actual life events (e.g., unemployment) as well as new opportunities (e.g., broadening lifestyle choice) that arise from current social and economic change impact upon individual development, particularly across young and middle adulthood. Second, I investigate what role individual differences in psychosocial resources (e.g., religiosity) and individual agency (e.g., coping strategies) play in determining the impact of these uncertainties and opportunities on the life course. Third, I am interested in how the larger social ecology (e.g., labour market conditions) shapes people's exposure to, and reactions to, these new uncertainties and opportunities. Ultimately, I hope to identify possible targets for interventions aimed at fostering positive development in times of accelerated social and economic change.

Publications

Lechner, C. M., & Leopold, T. (2014). Religious attendance buffers the impact of unemployment on life satisfaction: Longitudinal evidence from Germany. *Journal for the Scientific Study of Religion* (Advance Online).

Lechner, C. M., Silbereisen, R. K., Tomasik, M. J., & Wasilewski, J. (2014). Getting going and letting go: Religiosity fosters opportunity-congruent coping with work-related uncertainties. *International Journal of Psychology* (Advance Online).

Lechner, C. M., Tomasik, M. J., Silbereisen, R. K., & Wasilewski, J. (2013). Religiosity reduces family-related uncertainties but exacerbates their association with distress. *International Journal for the Psychology of Religion*, 24(3), 185-200.

Lechner, C. M., Tomasik, M. J., Silbereisen, R. K., & Wasilewski, J. (2013). Exploring the stress-buffering effects of religiousness in relation to social and economic change: Evidence from Poland. *Psychology of Religion and Spirituality*, 5(3), 145-156.

Post-doctoral Fellows

Mark Lyons-Amos

I am a PATHWAYS Research Fellow at the Institute of Education, University of London since November 2013. I have a background in quantitative demography, having read demography at undergraduate, postgraduate and doctoral level at the University of Southampton. Following my



doctoral studies, I worked at the Centre for Multilevel Modelling (University of Bristol) and the Centre for Population Change, which reflects my interest in the interaction between macro and individual level demographic behaviours and modelling these via continuous and discrete random effects models

As a PATHWAYS Fellow, I will be focussing on the evaluation of modern forms of family demography, in particular, examining the way in which family formation now comprises disordered behaviour across multiple life domains and how this varies between individuals. A particular interest is the response of family formation processes to recent macro-economic shocks. I will make use of the British Household Panel Study (BHPS), Understanding Society and the Longitudinal Study of Young People in England (LYSPE).

Research Plan

I have completed the principal initial work in the production of the research article, 'Differential responses in first birth behaviour to economic recession in the United Kingdom', which has also been presented at international conferences (specifically the European Population Conference in Budapest). At present, I am following a number of research strands focussing on the career trajectories of young people, and relating these to the effect of recession on aspiration and similar self-perception. This research strand is to be disseminated via publications in peer-reviewed journal articles, book chapter and conferences.

I plan to develop a grant proposal building on existing work investigating the evolution of the interrelationships between demographic processes in the UK and Europe. This research will comprise three major strands, firstly measuring the evolution in the interrelationship between the big 5 transitions (independent living, leaving full time education, entering the labour market, forming coresidential union and fertility). Specifically, the goal will be to model the manner in which the association between these processes has changed across cohorts. The second major strand will attempt to model the evolution of selection processes in demographic phenomena e.g. the evolution of the selection into marriage and the consequent effect on fertility behaviour. Finally, the analyses will be expanded to a number of different country settings, using comparative data (e.g. EU SILC or Harmonized Histories).

Post-doctoral Fellows

Mark Lyons-Amos

Publications

Padmadas, S.S, **Lyons-Amos, M.J.** and S. Thapa (In press). Do abortion users exhibit better contraceptive behaviour than post-partum women? Analysis of calendar data from Nepal Demographic and Health Survey International *Journal of Gynaecology and Obstetrics*

Lyons-Amos, M.J., G. Durrant and S.S. Padmadas (2014) Contraceptive confidence and timing of first birth in Moldova *BMJ Open* 4(8)

Perelli-Harris, B. and **Lyons-Amos, M.** (2014) Partnership patterns in the United States and across Europe: "Diverging destinies" or "diverging contexts"? CPC Working Paper 53, ESRC Centre for Population Change, UK.

Beaujouan, E., Berrington, A., **Lyons-Amos, M.** and Ni Bhrolchain, M. (2014) User guide to the Centre for Population Change GHS database 1979-2009. CPC Working Paper 47, ESRC Centre for Population Change, UK.

Dissemination

- Lyons-Amos, M.J. and I. Schoon . 2014 'Macro-Micro interactions in fertility transitions: Differential responses in first birth behaviour to economic recession in the United Kingdom' European Population Conference, Budapest Hungary.
- Lyons-Amos, M.J., and I.Schoon 2014 'Employment and Family Transitions: Trends before and after the Great Recession' Young People and the Great Recession Comparative Analysis of international longitudinal data resources: 3rd ESRC workshop

- Lyons-Amos, M.J. and B. Perelli-Harris 2014 'Variation in the Intersection between Partnership and Fertility: A Comparison across Three Cohorts in 16 Countries' Population Association of America Annual Meeting, Boston MA
- Mikolai, J. and M.J. Lyons-Amos 2014 'Coping with Complex Individual Histories: A Comparison of Life Course Methods with an Application to Partnership Transitions in Norway' Population Association of America Annual Meeting, Boston MA

Post-doctoral Fellows

Julia Moeller

I joined the PATHWAYS programme in November 2013 and work as a post-doctoral researcher at the University of Helsinki, Finland for the EAGER project, which has grown out of a collaboration between the PATHWAYS PIs, Katariina Salmela-Aro and Barbara Schneider, in collaboration with Jari Lavonen. In this project I investigate students' engagement in STEM subjects in Finland and the US.



During my Ph.D. at the University of Erfurt, Germany, I investigated different aspects of passion and commitment for activities, and investigated the situational variability and long-term stability of passion in a longitudinal Experience Sampling Study, which resulted in a paper together with PATHWAYS PIs' Professor Jacquelynne S. Eccles, Professor Barbara Schneider and Fellow Dr. Julia Dietrich.

In my post-doc, I am now continuing this line of research on situational aspects of multifaceted constructs of motivation, namely passion, engagement, and task values. As my current main research foci, I investigate 1) how to disentangle situation-specific (state-),

person-specific (trait-) and contextual determinants of learning motivation, and 2) measurement issues of situational assessment of student motivation.

A central theme of my previous, current and planned research is the question why some individuals show motivational and behavioural persistence and enthusiastic desire to engage in effortful learning activities, while others give up on such activities. In particular, several of my previous and current studies focus on the interplay between two specific aspects of this motivation: 1) fluctuating states of incentive motivation (desire) and 2) long-term stable components of commitment (e.g. identification, long-term goals, action plans). I am interested in explaining the mechanisms through which either of these determinants contributes to motivational and behavioural persistence in effortful learning activities. A recent research question which I plan to pursue in the near future asks how stable motivational dispositions emerge out of repeated situational experiences. Thus, my research bridges questions of the psychology of motivation, development, and personality. Concerning research methods, I am particularly interested in multilevel intensive longitudinal data (e.g. Experience Sampling Method) in combination with person-oriented approaches.

Research Plan

During my time as a PATHWAYS Fellow, I plan to work on two major topics: 1) Student engagement and 2) Passion.

First, as part of my work in the EAGER project, I investigate situation-specific and domain-specific determinants of student engagement and task values. For this purpose, I currently use intensive longitudinal data from the EAGER study and three other on going and previously completed Experience Sampling Method (ESM) studies. In a first paper I described and validated a new method to measure situational aspects student engagement. This paper used person-oriented analyses to identify qualitatively distinct states of engagement and shows that the accumulated experience of states of engagement in school situations validly predicts dispositional school engagement measures, while the repeated experience of states of stress predicts symptoms of school burnout in general paper-and-pencil measures, among other findings.

In a second paper I study and discuss methodological issues in the assessment of situational task values and situational competence beliefs, and the validity of ESM measures as opposed to more dispositional paper and pencil measures. In a third paper I address different constellations of situational task values and competence beliefs in learning situations, and their situation-specific, person-specific and context-specific determinants, including a replication of the findings across three different ESM studies.

Post-doctoral Fellows

Julia Moeller

As a second main focus, I plan for Autumn 2014 to continue my research on the psychological construct passion with data of the longitudinal FinEdu study and the Mind the Gap project (both in Helsinki). Using this data, I will investigate prospective predictors of passion and previously unconsidered aspects of the construct's structure and validity. Recently, I was invited to contribute a book chapter about passion to the International Encyclopedia of the Social and Behavioral Sciences, which is currently in press.

A collaboration with Martin Obschonka in a joint study on entrepreneurial passion is planned for 2015.

Publications

- Moeller, J.** (2014). Passion as concept of the psychology of motivation. Conceptualization, assessment, inter-individual variability and long-term stability. Dissertation published online at <http://www.db-thueringen.de/servlets/DerivateServlet/Derivate-29036/DissJuliaMoeller.pdf>
- Moeller, J.**, Dietrich, J., Eccles, J. S., & Schneider, B. (in review). On the variability and long-term stability of passion: A longitudinal Experience Sampling Approach. Manuscript submitted for publication.
- Moeller, J.**, Dietrich, J., Salmela-Aro, K., & Schneider, B. (in prep.). Patterns of Situational Engagement in School Contexts: An Experience Sampling ISOA Approach. Manuscript in preparation.
- Moeller, J.**, Viljaranta, J., Dietrich, J., Schneider, B., Wigfield, A., & Salmela-Aro, K. (in prep.). Measuring situational task values in Experience Sampling Studies: Items and constellations. Manuscript in preparation.
- Moeller, J.**, Viljaranta, J., Linnansaari, J., & Lavonen, J. (in prep.). Validity of PISA Scales in Predicting Situational Student Engagement in Science Lessons. Manuscript in preparation.
- Moeller, J.**, Judy, J., Lavonen, J., Salmela-Aro, K., & Schneider, B. (in prep.). How should we measure student's science engagement? Comparison of four established scales. Manuscript in preparation.
- Moeller, J.**, Wächter, D., Keiner, M., & Grassinger, R. (in prep.). Are the Dual Types of Passion Types in the Sense of Inter-Individuals Differences? A Person-Oriented Contribution. Manuscript in preparation.
- Moeller, J.**, Eccles, J. S., Salmela-Aro, K., Dietrich, J., & Schneider, B., & Grassinger, R. (under review). Passion as Psychological Construct. In: K. Salmela-Aro & J. S. Eccles (Eds.). International Encyclopedia of Social and Behavioral Sciences (2. Ed.). Manuscript submitted for publication.
- Moeller, J.**, Judy, J., Salmela-Aro, K., & Schneider, B. (in prep.). Advances in the research on situation-specific and contextual aspects of student engagement. Manuscript in preparation.
- Moeller, J.** (in press). The contribution of Passion and Commitment to the Explanation of Motivation and Persistence in Deliberate Practice: Reviewing Theoretical Conceptualization and Empirical Evidence. In: Wolfensberger, M. V. C., Drayer, L., & Volker, J. J. M. (Eds.). Pursuit of Excellence in a Networked Society – Theoretical and Practical Approaches. Munster: Waxman.
- Drayer, L., Wolfensberger, M. V. C., & **Moeller, J.** (in press). Evoking excellence with special undergraduate programs: A German - Dutch comparison. In: Wolfensberger, M. V. C., Drayer, L., & Volker, J. J. M. (Eds.). Pursuit of Excellence in a Networked Society – Theoretical and Practical Approaches. Munster: Waxman.

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.



In 2012 I completed a PhD in Social and Political Sciences at the European University Institute. 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 sociology of education.

Research Plan

My research agenda focuses on the relationship between the education system and the distribution of opportunities of educational success on the one hand and individual academic and behavioural responses on the other.

I plan to pursue this in two main projects: 1) designing instruction to enhance achievement of all and reduce inequality and 2) value orientation, strain and deviant behaviour.

My objective for the first project is to contribute to the debate regarding the best balance between providing common instruction to all students and targeting instruction to students’ idiosyncrasies. My research provides support for a mixed provision of education: in order to adjust the education system to the idiosyncratic aspirations and abilities of each student and thrive for the highest attainment level and minimum inequalities, the mixed provision complements the fixed, comprehensive instruction with a flexible, and targeted instruction. The mixed provision is thought to be preferable to both tracking/streaming by ability and comprehensive instruction. Streaming has often resulted in high inequality in the distribution of abilities as high performing students gain at the expenses of low-performing students. It has also often resulted in unequal learning opportunities, at the detriment of students from disadvantaged backgrounds. Comprehensiveness, on the other hand, by providing the same level of instruction to all students, will exclude the students in the bottom end of skill distribution from achieving the targeted proficiency levels, whilst underutilizing the academic potential of the students in the upper end of skill distribution.

The second project looks at the behavioural consequences of unequal opportunities of socio-economic success. Using subculture theories, it argues that deviance is characterized by a desire for economic success and rejection of middle class lifestyle values of self-improvement and work, which are developed during the school years. These attitudes are hypothesized to mediate the relationship between opportunities of socio-economic success and deviant behaviour in adulthood. The question is explored in a life-course model including parental social class, attitudes and other control factors in adolescence and delinquent behaviour in adulthood on large-scale cohort studies, such as the BCS70.

In addition I have another active line of research on adult education and learning and inequality in skills. I am using data from PISA and the survey of adult skills (SAS, OECD 2012) to explore cross-country variation in changes in skills inequality between 15 and 27 years of age and the post-secondary educational institutions that may explain it.

Post-doctoral Fellows

Nicola Pensiero

Publications

Green, A., Green, F. and **Pensiero, N.** (2014). Why are Literacy and Numeracy Skills in England so Unequal? Evidence from the OECD's Survey of Adult Skills and other International Surveys. LLAKES Research Paper 47.

Green, A., Green, F. and **Pensiero, N.** (Under review). Cross-Country Variations in Inequality of Adult Literacy and Numeracy Skills: Why are Anglophone Countries so Unequal?

Pensiero, N. and Schoon, I. (Under review). Social inequalities in educational attainment between 1970 and 1990 in the UK. The changing impact of parents' social class, social status and education, and family income.

I. Schoon and N. Pensiero (Under review). Social inequalities in educational attainment and progression: Do combinations of social positions in the parent generation matter?.

Beblavý, M., Veselkova, M. & Pensiero, N. (Under review). From Selection to Universalism in Education: How International Policy Narratives Shape National Policy Outcomes.

Dissemination

- Designing instruction to enhance achievement of all and lower inequality: a life-course approach. N. Pensiero. Going to school today: choice and orientation among family, school and public policies. Italian *Sociological Association*, September 2014.
- Adult Skills Inequality Compared across Countries: The Evidence from the OECD Survey of Adult Skills and other International Surveys. N. Pensiero & A. Green. Workshop on OECD Survey of Adult Skills, June 2014, Institute of Education.
- Social inequalities in educational attainment between 1970 and 1990 in the UK. The changing impact of parents' social class, social status and education, and family income. N. Pensiero & I. Schoon. American Education Association meeting in Philadelphia, April 2014.

Post-doctoral Fellows

Florencia Sortheix

I am working as a post-doctoral researcher at the Department of Psychology, University of Jyväskylä, Finland. I am based at the Faculty of Social Research (Social Psychology) at the University of Helsinki



where I completed my doctoral degree in April 2014. My doctoral dissertation analysed the role of context on the relationships between personal values and well-being. Results showed that these associations are influenced by country-level characteristics, by the social groups to which they belong, as well as by organizational and developmental situations. I joined the PATHWAYS programme in June 2014.

I have been involved in the Finnish Educational Transitions (FinEdu) Study lead by Prof. Katariina Salmela-Aro since 2010. My current research interests focus on the relationships between work values, career choices and work engagement. What helps young people to find a suitable occupation? Of particular interest are the interplay between individual motivations and first working experiences in explaining motivational change.

Publications

Sortheix, F.M., Chow, A., & Salmela-Aro, K. Work value change during the transition to work life.

Sortheix, F. M., & Masuda, A. Work values on job satisfaction across-countries: a multi-level perspective.

Sortheix, F. M., & Schoon, I. The work values of youth in times of economic crisis: Perspectives from Europe

Chow, A., Sortheix, F.M., & Salmela-Aro, K. Continuity in intrinsic motivation from school to work.

Dissemination

Sortheix, F. M., & Salmela-Aro, K. The work values of youth in times of economic crisis: Perspectives from Europe. Workshop Career-related transitions: Perspectives for well-being. 18th -19th September, 2014, Jyväskylä, Finland.

Prizes and Grants

Ella and Georg Ehrnröth Foundation Post-doctoral research grant for the year 2015.

Post-doctoral Fellows

Heta Tuominen-Soini

I joined the PATHWAYS programme in December 2012. I am based at the Institute of Behavioural Sciences, University of Helsinki, Finland. Before joining the PATHWAYS team, I was involved in the Finnish Educational Transitions (FinEdu) Study



(<http://wiredminds.fi/projects/finedu/>), led by Katariina Salmela-Aro, from the onset of this longitudinal study (2003-2014). Currently, I am also involved in the Mind the Gap between digital natives and educational practices -project (<http://wiredminds.fi/projects/mind-the-gap/>), funded by the Academy of Finland (2013-2016). I have published papers, for example, in journals *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

As a PATHWAYS Fellow, my research focuses 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 research focuses on three areas: 1) achievement goal orientation profiles and the development of achievement goal orientations during educational transitions, 2) students' subject-specific motivation, that is, task values and achievement goal orientations, and 3) students' schoolwork engagement and school burnout. In addition to these three main research areas, within the Mind the Gap -project, I am collaborating with researchers exploring young people's ICT-use and socio-digital participation and how they relate to student motivation, academic achievement, and academic well-being (Hietajärvi et al., accepted for publication; Hietajärvi et al., submitted; Hietajärvi et al., in preparation).

In my 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. Currently, I am prolonging the time span of the study design and investigating goal stability also during other educational transitions and even during the transition from school to work. I am also continuing my research on achievement goal orientation profiles and the development of achievement goal orientations over time (e.g., Tuominen-Soini, Salmela-Aro, & Niemivirta, in preparation) and I am currently investigating students' subject-specific achievement goal orientations.

In fall 2013 I conducted a new data collection for the FinEdu Study in general upper secondary school, in which students' subject-specific achievement goal orientations (with respect to mathematics and languages), task values, academic well-being, and perfectionism, among others, were assessed. A follow-up will be conducted in September 2014. With respect to measuring value beliefs, I collaborated with Professor Ulrich Trautwein and his group from the University of Tübingen. The first results were presented at the International Conference on Motivation 2014 (PATHWAYS symposium "Subjective task value in context: Exploring its dynamics with motivational and school outcomes") and we are preparing a manuscript based on the results (Tuominen-Soini & Salmela-Aro, in preparation).

Post-doctoral Fellows

Heta Tuominen-Soini

I will also focus on investigating students' school engagement and school burnout profiles. In our previous study (Tuominen-Soini & Salmela-Aro, 2014), we examined high school students' 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 finalizing a manuscript on vocational school students' engagement and burnout profiles and their relations to motivation and dropout (Tuominen-Soini & Salmela-Aro, in preparation b). Furthermore, we will be able to use the Finnish PISA data for exploring the school engagement and burnout profiles and their associations to PISA performance among 15-year-old students.

Beyond Pathways

I will continue conducting research, working within the FinEdu and Mind the Gap -projects, and presenting my research at international and national conferences. Also, I will be teaching at the Institute of Behavioural Sciences, University of Helsinki. In fall 2014, I will apply for independent research funding from, for example, the Academy of Finland. This research plan includes a mobility plan with visits abroad and collaboration with, for example, other PATHWAYS Fellows and Professors.

Post-doctoral Fellows

Heta Tuominen-Soini

Publications

- Tuominen-Soini, H.** (manuscript accepted for publication). Onko nuorella kaikki hyvin, jos koulussa menee hyvin? Opiskelumotivaation ja hyvinvoinnin yhteyksistä. In L. Uusitalo-Malmivaara (Ed.), *Positiivisen psykologian voima*. PS-kustannus.
- Hietajärvi, L., **Tuominen-Soini, H.**, Hakkarainen, K., Salmela-Aro, K., & Lonka, K. (manuscript accepted for publication). Is student motivation related to socio-digital participation? A person-centered approach. *Elsevier Procedia – Social and Behavioral Sciences*.
- Hietajärvi, L., Nuorteva, M., **Tuominen-Soini, H.**, Moisala, M., Hakkarainen, K., Salmela-Aro, K., Alho, K., & Lonka, K. (manuscript submitted for publication). Diginuorten ja koulukäytäntöjen välistä kuilua tutkimassa [Examining the gap between digital natives and educational practices].
- Hietajärvi, L., **Tuominen-Soini, H.**, Hakkarainen, K., Salmela-Aro, K., & Lonka, K. (manuscript in preparation). Socio-digital participation profiles of 6th-graders and their association to academic well-being.
- Tuominen-Soini, H.**, Salmela-Aro, K., & Niemivirta, M. (manuscript in preparation). Students' multiple goals: A systematic review and synthesis of empirical research examining achievement goal orientation profiles.
- Tuominen-Soini, H.**, & Salmela-Aro, K. (manuscript in preparation a). Math-specific achievement goal orientation profiles: Relations to value beliefs about math and school engagement, burnout, and perfectionism.
- Tuominen-Soini, H.**, & Salmela-Aro, K. (manuscript in preparation b). Vocational school students' engagement and burnout profiles and their relations to motivation and discontinuing studying.
- Viljaranta, J., Watt, H. G., **Tuominen-Soini, H.**, Lauermann, F., Eccles, J., Spinath, B., & Salmela-Aro, K. (manuscript in preparation). Task value profiles among adolescents in Finland, Australia, Germany, and United States..
- Tuominen-Soini, H.**, & Salmela-Aro, K. (2014). Schoolwork engagement and burnout among Finnish high school students and young adults: Profiles, progressions, and educational outcomes. *Developmental Psychology*, 50, 649–662. doi:10.1037/a0033898
- Tuominen-Soini, H.**, & Salmela-Aro, K. (2014). Linking student motivation and well-being: Achievement goal orientation profiles and socio-emotional outcomes. *Pathfinder: The Pathways to Adulthood Newsletter*, Issue 7, 4–6.
- Tuominen-Soini, H.** (2013). Opiskelumotivaation ja hyvinvoinnin yhteydet sekä kehitys nuoruudessa [The relations and development of student motivation and well-being during adolescence]. *Kasvatus* [The Finnish Journal of Education], 44, 555–561.
- Niemivirta, M., Pulkka, A.-T., Tapola, A., & **Tuominen-Soini, H.** (2013). Tavoiteorientaatioprofiilit ja niiden yhteys tilannekohtaiseen motivaatioon ja päättelytehtävissä suoriutumiseen [Achievement goal orientation profiles and their relations to task-specific motivation and performance]. *Kasvatus* [The Finnish Journal of Education], 44, 533–547.
- Salmela-Aro, K., & **Tuominen-Soini, H.** (2013). *Koulu-uupumuksesta innostukseen?* [From school burnout to school engagement?]. In J. Reivinen, & L. Vähäkylä (Eds.), *Ketä kiinnostaa? Lasten ja nuorten hyvinvointi ja syrjäytyminen* (pp. 242–254). Academy of Finland. Helsinki: Gaudeamus.

Post-doctoral Fellows

Heta Tuominen-Soini

Dissemination

- Hietajärvi, L., Tuominen-Soini, H., Hakkarainen, K., Salmela-Aro, K., & Lonka, K. (2014). Is student motivation related to socio-digital participation? A person-centered approach. Paper to be presented at the International Conference on Education and Educational Psychology (ICEEPSY), 22–25 October, Kyrenia, Cyprus.
- Salmela-Aro, K., & Tuominen-Soini, H. (2014). Engagement and burnout profiles during the third decade of life. Paper presented at the Challenges in the Third Decade of Life in the 21st Century Conference, 25–28 June, Hannover, Germany.
- Tuominen-Soini, H., & Salmela-Aro, K. (2014). Students' math-specific achievement goal orientation profiles: Relations to value beliefs about math and school engagement, burnout, and perfectionism. Paper presented at the International Conference on Motivation, 12–14 June, Helsinki, Finland.
- Hietajärvi, L., Tuominen-Soini, H., Hakkarainen, K., Lonka, K., Makkonen, J., & Salmela-Aro, K. (2014). Profiles of 6th-graders socio-digital participation - associations to academic achievement, engagement and burnout. Paper presented at the International Conference on Motivation, 12–14 June, Helsinki, Finland.
- Tuominen-Soini, H., & Salmela-Aro, K. (2013). Vocational school students' engagement and burnout profiles and their relations to motivation and discontinuing studying. Paper presented at the Annual Conference of the Finnish Educational Research Association (FERA), 21–22 November, Jyväskylä, Finland.
- Tuominen-Soini, H., & Salmela-Aro, K. (2013). A new project examining students' subject-specific motivation: Integrating achievement goal and expectancy-value perspectives. Paper presented at the Pathways to Adulthood Workshop, 10–13 November, Beaumont Estates, Windsor, UK.

Member of the Local Organizing Committee of the International Conference on Motivation, Helsinki, June, 2014: <http://icm2014.fi/contact/committee/>

Prizes and Grants

I was chosen to be the Primus Doctor (the Valedictorian) at the Conferment Ceremony of the Faculty of Philosophy, University of Helsinki, May 2014: www.helsinki.fi/fil-promootio2014/mikapromootio-en.shtml

Dissemination - Impact

Interview in Lapsemme magazine 3/2014 concerning studying, motivation, and well-being especially among boys, The Mannerheim League for Child Welfare (will be published in September 2014, both in print and online): <http://www.mll.fi/en/>

Interview in Demi youth magazine concerning studying and student motivation during adolescence, April 2014: <http://www.demi.fi/lehti>

News related to the Conferment Ceremony: Heta Tuominen-Soini promotion primustohtoriksi <http://www.helsinki.fi/behav/uutisarkisto/2014/utuinen-20-05-2014.htm>

Hankkeemme tutkija Heta Tuominen-Soinista primustohtori <http://blogs.helsinki.fi/mindthegap/2014/06/04/hankkeemme-tutkija-heta-tuominen-soinista-primustohtori/>

Other news concerning my research on the WiredMinds- and Mind the Gap -websites: Are students who are performing well academically, doing well also emotionally? <http://wiredminds.fi/students-performing-well-academically-emotionally/>

Engagement and/or burnout among Finnish students? <http://wiredminds.fi/school-engagement-burnout/> Motivaatiotekijät oppimisessa (Kasvatus 5/2013) <http://blogs.helsinki.fi/mindthegap/2014/01/13/kasvatus-52013-motivaatiotekijat-oppimisessa-teemanumero-on-ilmestynyt/>

Ketä kiinnostaa? Lasten ja nuorten hyvinvointi ja syrjäytyminen

<http://blogs.helsinki.fi/mindthegap/2013/12/19/keta-kiinnostaa-lasten-ja-nuorten-hyvinvointi-ja-syrjaytyminen/>

Alumni

Elizabeth Covay

I completed my PhD in Sociology at the University of Notre Dame in May 2010. In October 2012 I joined the PATHWAYS programme, working as the Research Director for the Michigan Consortium for Educational Research at the College of Education, Michigan State University. In September 2014 I joined the faculty at National Louis University located in Chicago as an Assistant Professor in the Educational Leadership Program in the National College of Education. My research interests include inequality in student access to, returns to, and experiences in opportunities to learn with particular focus on the classroom context.



Beyond the Fellowship

Over this past year, I have continued to work on student inequality in access to and returns from various forms of learning opportunities. In 2013, I was awarded a Measure Effective Teaching (MET) Early Career Grant. Using the MET Longitudinal Database, I examined the differential access to effective instruction with particular attention to racial differences. More specifically, I ask whether there are racial differences in student access to effective instruction, how effective instruction is related to student achievement, and how the relationship between instruction and achievement varies by student race. I find that minority students tend to have teachers with less effective instruction. I am continuing to work on the second and third research question.

In addition to the papers that will result from my MET grant, I am also continuing to revise papers from my dissertation. The first paper examines the black-white achievement gap among advanced math students. This paper is currently under review at Social Science Research after having received a revise and resubmit.

The second paper examines racial differences in teacher perceptions of student ability and was accepted for publication in Teachers College Record. My next set of papers uses the Early Childhood Longitudinal Study-Kindergarten Cohort 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. The first paper asks what are the average characteristics of first-, third-, and fifth-grade teachers? This paper has been conditionally accepted at the American Journal of Education.

The second paper focuses on school context. More specifically, we create a measure of school conditions and processes (SCP), which measures the school environment through school conditions, safety, and professional community. The third paper examines the relationship between instructional characteristics and achievement gaps.

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. This paper received a revise and resubmit at the Journal of Teacher Education and is currently under review.

Alumni

Elizabeth Covay

The second project involves a series of validation studies of the Vanderbilt Assessment for Leadership in Education (VAL-ED). I completed the analyses for a known group and a test-retest validation study. The Known Group Analysis was published in Educational Assessment, Evaluation, and Accountability.

While I have been working on revising and resubmitted the above studies, I have also begun new research including work with Pathways PI Barbara Schneider and Dr. Ken Frank. We are currently in the final stages of preparing a manuscript that examine the role of educational policies and economic factors on teacher mobility in the state of Michigan in the United States. Additionally, Drs. Schneider, Frank, and I are beginning a new study that examines differences in course content implied by course titles versus coding of course descriptions. We are finding that the content implied by the courses is only consistent about 64% of the time. This project is in beginning stages, but suggests that the course content implied by the titles does not necessarily reflect the content covered in the course.

Having the opportunity to work on projects with Pathways PI Barbara Schneider will allow me to learn from her experience. Additionally, her mentoring has been invaluable as I transition into the next stage of my career. The experiences that I have had working with her have prepared me to be a strong scholar. I will use my experiences and working with Dr. Schneider to continue to research student opportunities to learn with intense focus on the classroom.

Alumni

Elizabeth Covay

Publications

Covay Minor, E., Desimone, L., Phillips, KJR & Spencer, K. A New Look at the Opportunity to Learn Gap across Race and Income. Conditional Acceptance at *American Journal of Education*.

Covay Minor, E. (2014). Student Race and Differences in Teacher Perceptions of Student Academic Ability. *Teachers College Record* 117(1).

Covay Minor, E., Porter, A.C., Murphy, J., Goldring, E.B., Cravens, X., & Elliott, S.N. (2014). A Known Group Analysis Study of the Vanderbilt Assessment of Leadership in Education. *Educational Assessment, Evaluation, and Accountability*.

Covay Minor, E. Racial Differences in Math Test Scores for Advanced Math Students. Revise & Resubmit

Covay Minor, E. Classroom Composition and Racial Differences in Opportunities to Learn. Under Review

Covay Minor, E. The Differential Effects of Instruction on Achievement. Under review.

Covay Minor, E., Desimone, L., & Caines, J. Explaining Differential Effects of PD: The Role of Teacher Content Knowledge. Revise & Resubmit

Covay Minor, E., Porter, AC, Murphy, J., Goldring, E. & Elliott, SN. A Test-Retest Analysis of The Vanderbilt Assessment for Leadership in Education. Under Review

Covay Minor, E. & Puccioni, JL. Inequality in Noncognitive Skills and Cumulative Disadvantage. In preparation.

Covay Minor, E., Saw, G., Frank, K., Schneider, B. and Obenauf, K.. Teacher Mobility and Contextual Forces: The Case of Michigan High Schools. In preparation.

Desimone, L., Phillips, KJR, **Covay Minor, E.**, Spencer, K., & Stuckey, D. Can a Conceptual/Advanced versus Procedural/Basic Approach to Mathematics Instruction Influence the Racial/Ethnic and Socio-Economic Achievement Gap in Elementary School? In preparation.

Phillips, K. J.R., Spencer, K., **Covay Minor, E.**, Desimone, L., & Stuckey D. Can Schools Really Make a Difference? Exploring School Conditions and Processes as a Moderator of Achievement Gaps. In preparation.

Dissemination

- Covay Minor, E. Differential Effects of Instruction on Achievement: Mathematical Quality of Instruction to be presented at the American Sociological Association Annual Meeting, San Francisco, CA, August 2014.
- Covay Minor, E., G. Saw, K. Frank, B. Schneider, & K. Obenauf. Teacher Mobility and External Contextual Factors: The Case of Michigan High Schools to be presented at the American Sociological Association Annual Meeting, San Francisco, CA, August 2014.
- Covay Minor, E. 2014. Teacher Mobility and External Contextual Factors: The Case of Michigan High Schools presented at the Michigan Educational Research Association Annual Spring Conference, Bath, Michigan, May 2014.
- Covay Minor, E. 2014 Differential Effects of Instruction on Achievement: Mathematical Quality of Instruction invited poster session Excellence in Education Research: Early Career Scholars and Their Work at the American Educational Research Association Annual Conference, Philadelphia, PA 2014.
- Desimone, L., K.J.R. Phillips, E. Covay Minor, K. Spencer, & D. Stuckey. 2014. The Difference Effects of Math Instruction by Race and Income. Presented at the American Educational Research Association Annual Conference, Philadelphia, PA 2014.
- Covay Minor, E., L. Desimone, & J. Caines. Explaining Differential Effects of Teacher Professional Development: The Role of Teacher Content Knowledge. Presented at

Alumni

Elizabeth Covay

the American Educational Research Association Annual Conference, Philadelphia, PA 2014.

- Covay Minor, E., G. Saw, K. Frank, & B. Schneider. 2014. Teacher Mobility and External Contextual Factors: The Case of Michigan High Schools. Presented at the American Educational Research Association Annual Conference Philadelphia, PA 2014.
- Covay Minor, E. Differential Effects of Instruction on Achievement: Mathematical Quality of Instruction presented at the Center for Research on Educational Opportunity, University of Notre Dame, February 2014.
- Covay Minor, E. Race and Income Group Differences in Experiences of Teacher Effectiveness. Presented at the Midwest Sociology of Education Conference, Madison, WI, November 2013.

Impact

I received a request to comment on a new research study for Fortune Magazine.

Casey, M. 2014, June 19. "Want to succeed in business? Then play high school sports." [Quoted by Author]. Fortune Magazine.
<http://fortune.com/2014/06/19/high-school-sports-business-cornell-job-market/>

Prizes and Grants

Measure Effective Teaching (MET) Early Career Grant.

Alumni

Julia Dietrich

I was a PATHWAYS Fellow from 2011-2012, mentored by Katariina Salmela-Aro at the University of Helsinki. Since the beginning of 2013 I am a research associate (German: Habilitationsstelle, equivalent to assistant professor) at the Institute of Educational Science, Department of Educational Psychology, at the University of Jena.



My research interests are (1) educational and career transitions, (2) personal goals and identity, (3) motivation and engagement, and (4) methods for the analysis of change and the assessment of context effects on development.

Beyond the Fellowship

During the last academic year I have been involved in preparing three grant proposals (all to the German Research Foundation). Two are individual grants for research projects. The first one on Phase-adequate engagement at the post-school transition builds on multiple papers that I published during my time at Pathways, e.g. together with Katariina Salmela-Aro and fellows Phillip Parker and Håkan Andersson. The project aims to examine the development of career engagement when young people approach the post-school transition, on the one hand, and the outcomes of different developmental patterns of engagement, on the other hand.

The second project is on STEM motivation and career aspirations (together with Päivi Taskinen, University of Jena). This project aims to examine the role of individual factors, i.e., students' motivation not only in STEM but also in other school subjects, and the role of contextual factors, i.e., the teaching that students experience in different subjects, as precursors of career intentions in STEM fields. An important basis for this project is a paper currently under review which I prepared together with Pathways Fellow Anna-Lena Dicke. We examined potential cross-domain contrast effects of teacher support in one subject area (Math vs. German language) on students' motivation in the other subject area. We found that higher levels of teacher support in one subject were related negatively to student motivation in another subject, which indeed calls for the examination of students' classroom experiences as interrelated across subjects.

Thirdly, I was involved in a proposal for a graduate college on mobility and identity (PI: Franz Neyer, University of Jena). My role there would be mentoring doctoral students on the topic of co-regulation of career goals within couples. Related to this, together with Shmuel Shulman (Bar-Ilan University, Israel) and Bärbel Kracke (University of Jena) I aim to prepare a proposal on that topic, to be submitted to the German-Israeli Foundation (GIF). We aim to examine how young adults negotiate their individual career goals with their romantic partners, and how couples' co-regulation affects and is affected by the level of commitment that characterizes the relationship.

Moreover, during this spring term, together with Pathways Fellows Julia Moeller (University of Helsinki) and Jaana Viljaranta (University of Jyväskylä), and with Bärbel Kracke (University of Jena) I conducted an experience sampling study with university students on momentary motivation. I also aim to continue working together with Katariina Salmela-Aro in the area of experience sampling and motivation.

Finally, I have continued joint publication activities with other Pathways Fellows. Anna-Lena Dicke visited Jena in October 2013, resulting in the above-mentioned paper on teacher support and students' motivational development. I also continued collaboration with Katariina Salmela-Aro and visited the University of Helsinki.

Alumni

Julia Dietrich

Publications

- Ranta, M., **Dietrich, J.**, & Salmela-Aro, K. (2014). Career and romantic relationship goals and concerns during emerging adulthood. *Emerging Adulthood*, 2, 17-26.
- Schindler, I., **Dietrich, J.**, & Berg, C. A. (2014). Why collaborate with close others when choosing a college major? *Journal of Educational and Developmental Psychology*, 4, 128-142.
- Sortheix, F., **Dietrich, J.**, Chow, A., & Salmela-Aro, K. (2013). Career values and engagement in the transition from education to work. *Journal of Vocational Behavior*, 83, 466-475.
- Tynkkynen, L., **Dietrich, J.**, & Salmela-Aro, K. (2014). Career goal-related success expectations across two educational transitions: A 7-year longitudinal study. *European Journal of Developmental Psychology*, 11, 356-372.
- Dietrich, J.**, Shulman, S., & Nurmi, J.-E. (2013). Goal pursuit in young adulthood: The role of personality and motivation in goal appraisal trajectories across 6 years. *Journal of Research in Personality*, 47, 728-737.
- Dietrich, J.**, & Salmela-Aro, K. (in press). *Emerging adults and work: A model of phase-adequate engagement*. In J. J. Arnett (Ed.), Oxford Handbook of Emerging Adulthood.
- Dietrich, J.**, Dicke, A.-L., Kracke, B., & Noack, P. (under review). Teacher Support and Its Influence on Students' Intrinsic Value and Effort: Contrast Effects Across Domains.
- Dreer, B., **Dietrich, J.**, & Kracke, B. (under review). From in-service teacher development to school improvement: Factors of learning transfer in teacher education.
- Moeller, J., **Dietrich, J.**, Eccles, J. S., & Schneider, B. (under review). Situational Variability and Long-Term Stability of Passionate Experiences: A Longitudinal Experience Sampling Approach.
- Dietrich, J., Noack, P., & Kracke, B. (2014, July). Motivation at School as an Antecedent of Adolescent Career Development. Paper presented at the 23rd Biennial Meeting of the International Society for the Study of Behavioural Development (ISSBD), Shanghai, China.
 - Dietrich, J. (2014, July). Adolescents' and Parents' Math-Related Motivational Beliefs and Adolescents' Preferences for Science Careers. Paper presented at the 2nd Gender & STEM Network Conference, Berlin, Germany.
 - Dietrich, J., Dicke, A.-L., Kracke, B., & Noack, P. (2014, June). Classroom effects on students' motivational development. Paper presented at the International Conference on Motivation (ICM), Helsinki, Finland.
 - Dietrich, J., Andersson, H., Tsai, Y.-M., & Salmela-Aro, K. (2014, June). Self-determined goal pursuit and motivational experience. Paper presented at the International Conference on Motivation (ICM), Helsinki, Finland.
 - Dietrich, J., Tynkkynen, L., & Salmela-Aro, K. (2014, March). Angemessenes Engagement beim Übergang von der Schule zur nachschulischen Ausbildung. Paper presented at the 2nd Meeting of the German Society for Empirical Educational Research (GEBF), Frankfurt, Germany.
 - Dietrich, J., Kracke, B., & Noack, P. (2013, September). Entwicklung von Schulengagement nach dem Eintritt in die Sekundarstufe. Paper presented at the 14th Conference of the Educational Psychology Section of the German Psychological Society (DGPs), Hildesheim, Germany.
 - Dietrich, J., Nurmi, J.-E., & Jokisaari, M. (2013, September). Wohlbefinden und phasenadäquates berufliches Engagement als Ressourcen für den Berufseinstieg. Paper presented at the 21st Conference of the Developmental Psychology Section of the German Psychological Society (DGPs), Saarbrücken, Germany.

Dissemination

- Dietrich, J., Kracke, B., & Noack, P. (2014, July). Co-Regulating the Post-High School Transition: Adolescents and Their Parents. Paper presented at the 23rd Biennial Meeting of the International Society for the Study of Behavioural Development (ISSBD), Shanghai, China.

Alumni

Martin Obschonka

I was a PATHWAYS Fellow from January 2011 to December 2012 and then a research fellow at the Department of Developmental Psychology at the University of Jena, Germany. Since April 2014 I am Assistant Professor of Entrepreneurship and Innovation Psychology at Saarland University, Germany. I also continue my affiliation with Jena University in the position of a research associate studying the development of entrepreneurial spirit and psychological aspects of new venture creation



Research Interests

My research interests lie in the fields of entrepreneurship, vocational development, economic psychology, work psychology, and social change. For example, I am studying biopsychosocial aspects behind entrepreneurial behaviour and success. I am particularly interested in the interplay between biologically based propensities such as the basic personality structure, characteristic adaptations such as competence growth across adolescence and adulthood, and relevant contextual factors involving proximal and distal environments, including social change at the macro level and cultural characteristics. Further, I am interested in psychological aspects of regions (e.g., an entrepreneurial regional culture) and how they relate to the economic performance of regions and to economic historical patterns. I also have an interest in research on social and economic change at the macro-level (e.g., globalisation, technological progress) and its concrete everyday implications in the work context.

In my new position as Assistant Professor (Juniorprofessor) for Entrepreneurship and Innovation Psychology at the Saarland University, Germany I am starting a new department, in collaboration with the local Institute of Psychology and the Business Startup Center. The new department's mission is to foster research, research-based practice, and teaching in the field of entrepreneurship and economic psychology at Saarland University. My new work involves supervision of doctoral students, lectures and seminars in the fields of entrepreneurship and work and organisational psychology, interdisciplinary research together with economists, and the implementation of a new campus-wide entrepreneurship education program.

Further, I have recently assumed two Associate Editor positions: for Small Business Economics, a leading international entrepreneurship journal, and for In-Mind, a German online journal devoted to the translation and application of psychological science.

Beyond the Fellowship

I received two grants, one for a research project on the development of balanced skills of entrepreneurs (Jacobs Foundation) and one for the study of regional cultural differences with regard to entrepreneurial behaviour (Thyssen Foundation). I collaborate with research groups from Finland (Katariina Salmela-Aro), England (Ingrid Schoon, Peter Jason Rentfrow), USA (Barbara Schneider, Jacque Eccles, Sam Gosling, David Audretsch), and Germany (Rainer Silbereisen, Michael Stützer).

In the balanced skills project, we investigate the jack-of-all-trades-hypothesis of entrepreneurship, according to which variety in skills and experiences is a crucial determinant of entrepreneurship and entrepreneurial success. We investigate longitudinal data from Finland, the UK and the US, thereby drawing from the established Pathways network. One central aim of the project is to inform education programs aiming to foster entrepreneurial mindsets and the next generation of successful entrepreneurs.

Alumni

Martin Obschonka

In the regional culture project, we utilize large datasets from the US and the UK to examine economic theories predicting an interplay between regional cultural differences on the one side, and regional differences in knowledge and creativity resources on the other in the prediction of regional differences in entrepreneurship, economic performance, and innovation. I have collaborated with renowned researchers from the University of Texas at Austin (Sam Gosling), University of Cambridge (Peter Jason Rentfrow), and Indiana University (David Audretsch). We also investigate the role of historical economic patterns (e.g., mining) in the emergence of a regional entrepreneurial culture.

Publications

Obschonka, M. & Silbereisen, R. K. (in press).

Psychological well-being and work-related demands associated with social and economic change in employed and self-employed individuals. *Journal of Personnel Psychology*.

Obschonka, M., Schmitt-Rodermund, E., & Terracciano, A. (in press). Personality and the gender gap in self-employment: A multi-nation study. *PLOS ONE*.

Stuetzer, M., **Obschonka, M.**, Brixy, U., Sternberg, R., & Cantner, U. (2014). Regional characteristics, opportunity perception and entrepreneurial activities. *Small Business Economics*, 42, 221-244.

Obschonka, M. (2013). Entrepreneurship as 21st century skill: Taking a developmental perspective. In Coetzee, M. (Ed.). *Psycho-social career meta-capacities: Dynamics of contemporary career development* (pp. 293-306). Amsterdam: Springer.

Dissemination

- 2014 Babson College Entrepreneurship Research Conference, 06/2013, London, Ontario, Canada: Obschonka, M., Stuetzer, M., Golsing, S. D.,

Rentfrow, P. J. & Potter, J. ?The Great Recession of 2008-2009 and regional entrepreneurship: Identifying cultural resilience factors?. (Talk)

- 2014 Babson College Entrepreneurship Research Conference, 06/2013, London, Ontario, Canada: Huyghe, A., Knockaert, M., & Obschonka, M. ?Spin-off versus start-up intentions: A tale of two passions?. (Talk)
- 28th International Congress of Applied Psychology (ICAP), 07/2014, Paris, France: Obschonka, M. & Silbereisen, R. K. (Conveners): Invited Symposium ?Advances in the Developmental Science of Entrepreneurship? under the auspices of IUPsyS
- 28th International Congress of Applied Psychology (ICAP), 07/2014, Paris, France: Obschonka, M. & Silbereisen, R. K. ?Early precursors of entrepreneurship: Prosocial and antisocial aspects?. (Talk)

Prizes and Grants

- 2013 Research Grant, Jacobs Foundation, Zürich, Switzerland; 28k Euro
- 2014 Research Grant, Fritz Thyssen Foundation, Cologne, Germany: 25k Euro

Dissemination (Impact)

My research work has been covered by national and international print and online media, including: BBC, BBC Mundo, Berliner Morgenpost, Berliner Zeitung, Blick.ch, Bloomberg Businessweek, Boston.com, Delmagyar.hu, DerStandard.at, Die Welt, Express.be, Focus, Folha de S. Paulo, Freie Presse, Fortune, Foxbusiness.com, Frankfurter Rundschau, Gehirn&Geist, GEO Magazin, Hamburger Abendblatt, Handelsblatt, Hannoversche Allgemeine Zeitung, Harvard Business Review, Ingenieur.de, Impluse - Das Unternehmergezeitschrift, Inc. Magazine, Industrial Engineer Magazine, Kieler Nachrichten, Kölner Stadt-Anzeiger, Libertyinvestor.com, Luzerner Zeitung, ManagerSeminare, Men's Health, Merkur-online.de, MSN.com, Münchner Merkur, N-TV.de, Neue Ruhr Zeitung, NU.nl, Ostthüringer Zeitung, Ostsee-Zeitung, Popular Science, Psychology Today, Report Psychologie, Saarbrücker Zeitung, SmartPlanet, Spiegel Online, Stern.de, Suedostschweiz.ch, Tagesspiegel, The Atlantic, The Huffington Post, TheWeek.com, Thüringische Landeszeitung, Twin Cities Business Magazine, VeckansAffärer.se, Westdeutsche Allgemeine Zeitung, Westfälische Rundschau, Wirtschaftsblatt.at, Yahoo.com

Alumni

Martin Obschonka

Examples of recent print and online media reports:

- Der Tagesspiegel, 12 May 2014: Der kleine Unterschied
<http://www.tagesspiegel.de/wirtschaft/gruender-der-kleine-unterschied/9872362.html>
 - Report Psychologie: Wo der Unternehmergeist wohnt,
<http://www.report-psychologie.de/news/artikel/wo-der-unternehmergeist-wohnt/>
 - Report Psychologie: Die dunkle Seite der Macht,
<http://www.report-psychologie.de/news/artikel/die-dunkle-seite-der-macht/>
 - Harvard Business Review, 3 Oct 2013: Entrepreneurial-Minded Americans Cluster in the Western States,
<http://blogs.hbr.org/2013/10/entrepreneurial-minded-americans-cluster-in-the-western-states/>
 - Boston.com, 26 Sept 2013: Personality traits of entrepreneurs linked to cities they live in,
http://www.boston.com/business/blogs/global-business-hub/2013/09/personality_traits.html
 - BBC News Business, 3 Sept 2013: The darker side of entrepreneurs,
<http://www.bbc.co.uk/news/business-23612822>
- Radio broadcasts** (e.g., MDR Info, BR, Radio RSH, Landeswelle Thüringen, Polish National Radio),
<http://www.ardmediathek.de/swr2/swr2-impuls?documentId=17126820>
- Television** (e.g., Bloomberg TV)
http://www.bloomberg.com/video/rule-breaking-entrepreneurship-and-teenagers-ynQ1SpTSR_Ooby2ijJ1NIQ.html
- Research brief Academy of Management Perspectives (AMP):**
<http://amp.aom.org/content/25/1/100.extract>

Alumni

Sanna Read

I have a PhD in Psychology from the University of Helsinki, Finland. I joined the PATHWAYS network as an Associate Fellow in August 2009. Prior to this, I worked on research projects on fertility history, social networks, health, and living arrangements in old age at the Centre for Population Studies, London School of Hygiene and Tropical Medicine and a project on social and political trust at the University of Surrey in the UK.



Before moving to England, I was an Associate Professor at the University of Jonkoping, Sweden. My work was part of an international research programme on older twins, including collaborators from Pennsylvania State University, and several universities in Sweden and Finland. I have extensive experience in structural equation modelling and used a number of longitudinal and multivariate methods in large population samples, including twin, family and household samples in the UK, Sweden and Finland.

My current research interests are the long-term health effects of fertility history, social contacts and socioeconomic factors in middle and older age. I am also interested in social inequalities and school engagement, school burnout and mental health among young people.

I am currently working on English data on fertility history and later life health, and modelling mediation and moderation through health related behaviours, social support and socioeconomic position. I am working on Finnish data on individual and school level factors in school engagement and burnout. I am also involved in projects on mental health among women who suffer from fear of childbirth, and genetic and environmental factors in well-being in young Finnish twins.

Katariina Salmela-Aro, Ingrid Schoon and I have planned to longitudinally analyse mental health and school outcomes using British data on children and young people.

Publications

Portegijs, E., **Read, S.**, Pakkala, I., Kallinen, M., Heinonen, A., Rantanen, T., Alen, M., Kiviranta, I., Sihvonen, S. & Sipila, S. (2014). Sense of Coherence: Effect on Adherence and Response to Resistance Training in Older People With Hip Fracture History. *Journal of Aging and Physical Activity*, 22, 138-145.

Read, S., Braam, A. W., Lyyra, T. M. & Deeg, D. J. H. (2014). Do negative life events promote gerotranscendence in the second half of life? *Aging & Mental Health*, 18, 117-124.

Saajanaho, M., Viljanen, A., **Read, S.**, Rantakokko, M., Tsai, L. T., Kaprio, J., Jylha, M. & Rantanen, T. 2014. Older Women's Personal Goals and Exercise Activity: An 8-Year Follow-Up. *Journal of Aging and Physical Activity*, 22, 386-392.

Salmela-Aro, K., **Read, S.** Vuoksima, E., Korhonen, T., Dick, D. M., Kaprio, J. & Rose, R. J. (2014). Depressive Symptoms and Career-Related Goal Appraisals: Genetic and Environmental Correlations and Interactions. *Twin Research and Human Genetics*, 17, 236-243.

Read, S. & Grundy, E. (2014). Allostatic load and health in the older population of England: a crossed-lagged analysis. Accepted for publication in *Psychosomatic Medicine*.

Saajanaho, M., Viljanen, A., **Read, S.**, Eronen, J., Kaprio, J., Jylhä, M., & Rantanen, T. (2014). Mobility limitation and changes in personal goals among older women. Accepted for publication in *Journal of Gerontology: Psychological Science*.

Dissemination

- Read, S., & Grundy, E. Fertility history and cognition in later life. Oral presentation. EPC, Budapest, June 2014.
- Read, S., & Grundy, E. Fertility history and cognition in later life. Poster. IEA, Anchorage, August 2014.
- Read, S., & Grundy, E. Physical activity moderates the association between fertility history and later life health. Poster. IEA, Anchorage, August 2014.

Alumni

Jaana Viljaranta

I am working as a post-doctoral researcher at the Department of Psychology, University of Jyväskylä, Finland. 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

I received personal project funding for three years from Academy of Finland to do research on these topics with title Motivation and Education: an integrative approach. I started working with this grant in September 2013. Therefore, my current research tries to increase our understanding of the above 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 data from Finland and Australia will be used.

The work during the first year of this grant has included mainly data analysing and starting collaboration with several senior researchers (including Associate Professor Helen Watt, Professor Birgit Spinath and Professor Jacquelynne Eccles). Several manuscripts are under progress and will be finalised during the next year. During the last year I have also participated several international conferences and symposiums, as well as done a research visit related to my research project in Monash University, Australia (host Associate Prof. Helen Watt) and in Technical University Berlin, Germany (hosts PhD Rebecca Lazarides and Prof. Angela Ittel). For details of these manuscripts and presentations, see following lists below.

In addition, with Julia Dietrich and Julia Moeller I have conducted a pilot for an experience sampling study in Jena, Germany, on the moment-to-moment development of students' task values and competence. The first results have been reported in the symposium at the ICM where Allan Wigfield was the discussant, and currently we are working on two papers about first results, where Allan Wigfield is one of the co-authors. These papers are in a very preliminary stage and will progress during the next year.

Alumni

Jaana Viljaranta

Beyond Pathways

I will continue working with my personal grant until August 2016. My research plan is the same as a year ago but some additional themes (temperament, teacher-student interaction) will be added to it during the following years. A longer scholarship in Australia (in Helen Watt's research group in Monash University) has been planned after a short visit that took place in November-December 2013, and money for that has been applied for.

Publications

- Aunola, K., Tolvanen, A., **Viljaranta, J.**, & Nurmi, J. E. (2013). Psychological Control in Daily Parent-Child Interactions Increases Children's Negative Emotions. *Journal of Family Psychology*, 27(3), 453-462. doi: 10.1037/a0032891
- Aunola, K., **Viljaranta, J.**, Lehtinen, E., & 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
- Hirvonen, R., Aunola, K., Alatupa, S., **Viljaranta, J.**, & Nurmi, J. E. (2013). The role of temperament in children's affective and behavioral responses in achievement situations. *Learning and Instruction*, 27, 21-30. doi: 10.1016/j.learninstruc.2013.02.005
- Viljaranta, J.**, Tolvanen, A., Aunola, K., & Nurmi, J.-E. (in press). The Developmental Dynamics between interest, self-concept of ability, and academic performance. *Scandinavian Journal of Educational Research*.
- Lazarides, R., Harackiewicz, J., Canning, E., Pesu, L., & **Viljaranta, J.** (in press), *The role of parents in students' motivational beliefs and values*. In Rubie-Davis, C. M., Stephens, J. M. & Watson, P. (Eds.), *The social psychology of the classroom international handbook*. London, England: Routledge.
- Viljaranta, J.**, Aunola, K., Mullola, S., Virkkala, J., Hirvonen, R., Pakarinen, E., & Nurmi, J.-E. (under revision). The role of temperament on children's skill development.
- Viljaranta, J.**, Hirvonen, R., & 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., & 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.
- Pesu, L., **Viljaranta, J.**, & Aunola, K. (submitted). The role of parents' and teachers' beliefs in children's self-concept of math and reading ability development during the first grade.
- Viljaranta, J.**, Lazarides, R., Aunola, K., & Nurmi, J.-E. (in progress). The role of parental beliefs in the development of students' task values from grade 7 to grade 9.
- Viljaranta, J.**, Watt, H. M. G., Tuominen-Soini, H., Lauermann, F., Eccles, J., Spinath, B., & Salmela-Aro, K. (in progress). Task value profiles among adolescents in Finland, Australia, Germany and United States.
- Viljaranta, J.**, Silinskas, G., Hirvonen, R., Pakarinen, E., Lerkkanen, M.-K., Poikkeus, A.-M., & Nurmi, J.-E. (in progress). Homework assistance and achievement-related behaviors from Grade 2 to Grade 4.
- Linnansaari, J., **Viljaranta, J.**, Juuti, K., Lavonen, J., & Salmela-Aro, K. (in progress). Students' situational engagement in Finnish science classrooms.

Dissemination

- Viljaranta, J., Hirvonen, R., & Aunola, K.

Alumni

Jaana Viljaranta

- (2014). Motivation and academic skill development among first-graders: A person-oriented approach. International Conference on Motivation 2014, 13.6.2014, Helsinki, Finland.
- Moeller, J., Viljaranta J. H., Schneider, B., Salmela-Aro K., Lavonen J., & Linnansaari, J. (2014). Alignment of momentary task values and momentary competence beliefs in different experience sampling method studies. International Conference on Motivation, 12.6.2014, Helsinki, Finland.
 - Linnansaari, J., Viljaranta, J., Juuti, K., Lavonen, J., & Salmela-Aro, K. (2014). Students' situational Engagement in Finnish Science Classrooms. Nordic Research Symposium on Science Education (NFSUN). 4th – 6th June 2014,
 - K. & Viljaranta, J. (2014). What Do Ninth-Grade Students See, Think and Do in Science Lessons? Nordic Research Symposium on Science Education (NFSUN). 4th – 6th June 2014, Helsinki, Finland.
 - Viljaranta, J., Räikkönen, E., Aunola, K., Nurmi, J.-E., & Lerkkanen, M.-K. (2014). The role of academic performance, self-concept of ability, and gender in adolescents' educational plans in Finland. AERA 2014 Annual meeting. Philadelphia, United States, 5.4.2014
 - Silinskas, G., Viljaranta, J., Hirvonen, R., Nurmi, J.-E., Pakarinen, E., Lerkkanen, M.-K., & Poikkeus A.-M.. (2013). Parental homework assistance and children's motivational behavior. Annual Conference of the Finnish Educational Research Association (FERA). Jyväskylä, Finland, 21.11.2013.
 - Viljaranta, J. (2013). Motivation and skill development. EDUKO Conference. Tallinn, Estonia, 7.11.2013
 - Viljaranta, J. (2013). The development and the role of task values at different phases of the school career. Motivation and passion seminar. Helsinki, Finland, 1.10.2013
 - Hirvonen, R., Aunola, K., Alatupa, S., Viljaranta, J., & Nurmi J.-E (2013). The role of temperament in children's task-avoidant behaviours in achievement situations. 15th Biennial Conference Earli 2013. München, Saksa, 27.8.2013
 - Pesu, L., Watt, H. M. G., Viljaranta, J., Aunola, K. (2014). The development of talent perceptions across grades 7-9 and the role of perceived parental beliefs. International Conference on motivation 2014. Helsinki, Finland. 13.6.2014. Poster presented.
 - Lavonen, J., Salmela-Aro, K., Schneider, B., Bruner, J., Judy, J., Linnansaari, J., Moeller, J., Juuti, K., Viljaranta, J., & Broda, M. (2014). Using smartphones to collect in the moment data of the student experience. Science Across Virtual Institutes -meeting. Helsinki, Finland, 10.6.2014 Poster presented.
 - Linnansaari, J., Viljaranta, J., Juuti, K., Lavonen J., & Salmela-Aro, K. (2013). Measuring students' engagement by using smart phones. Annual Conference of the Finnish Educational Research Association (FERA). Jyväskylä, Finland, 21.11.2013. Poster presented.

Prizes and Grants

Grant for a research visit from Technical University, Berlin (1500 euros)

Principal Investigators

Jacque Eccles

Jacque Eccles is a Distinguished University Professor of Education at the University of California at Irvine. She is also director of the Achievement Research Laboratory at the Institute for Social Research at the University of Michigan, where she directs three large-scale longitudinal studies on youth development which are used by the PATHWAYS Fellows in comparative studies.



Summary of recent work

Jacque continues to collaborate with Dr. Schneider on two NSF grants that study the developmental trajectories linked to STEM and other occupational choices. These projects include one former PATHWAYS Fellow (Yi-Miau Tsai) and one current PATHWAYS Fellow (Meeta Banerjee). Jacque and her team have spent the last two years locating the participants in two of her longitudinal studies (MSALT and CAB), gathering a new wave of quantitative data from them about their education, career, and family paths since leaving college and intensively interviewing a subset of the participants about these trajectories as well, with a particular focus on those participants who had initially indicated they were interested in STEM-related professions. Along with her PATHWAYS team (which include Drs. Tsai and Banerjee, as well as Anna-Lena Dicke from the University of Tübingen), Jacque will spend this coming year analysing these data and writing up papers based on the findings.

Jacque spent two weeks at the University of Tübingen this summer working with Dr. Trautwein and his students and several days with Dr. Salmelo-Aro in Finland consulting on projects and meeting briefly with two PATHWAYS Fellows. She also presented some of the work she has been doing related to PATHWAYS activities at two European Conferences/Summer Workshops. She served as the discussant on symposia put together by PATHWAYS Fellows at SRA and AERA.

Mentoring activities within PATHWAYS

I have been working closely with former Fellow Yi-Mau Tsai and current Fellow Meeta Banerjee on the NSF grants as well as Tsai, Banerjee and Anna-Lena Dicke on analysing data from my MSALT and CAB studies. I have also worked less formally with other PATHWAYS fellows as well, mentoring Julia Dietrich and Julia Moeller, and pursuing joint publications.

Principal Investigators

Katariina Salmela-Aro

Katariina is Professor of Psychology at the University of Jyväskylä, Finland; Visiting professor at the Institute of Education, University of London, UK; and Research Director in the Helsinki Collegium for Advanced Studies. She is directing several projects funded by the Academy of Finland: FinEdu



longitudinal study, Positive mind and LEAD studies. Furthermore, she is co-directing the EAGER project together with Barbara Schneider and Jari Lavonen using Experience Sampling by smartphones to examine STEM engagement; and the Mind-the-Gap project together with professors Lonka, Hakkarainen and Alho studying *digital natives* engagement, i.e., children and adolescents who have, from the beginning of their lives, been socialized to use socio-digital technologies. She has received several large scale grants from the Academy of Finland to study youth motivation, engagement and burnout.

Katariina Salmela-Aro was elected as the President of the European Association for Developmental Psychology (EADP) and acted as the Secretary General in the International Society for the Study of Behavioral Development (ISSBD). She is associate editor in *European Psychologist* and *Psykologia*, serves on the editorial board of the *European Journal of Developmental Psychology*, and is consulting editor in *Developmental Psychology*. In Finland she received the second place in the Minna Canth Academy Professor Award.

Summary of recent work

Katariina Salmela-Aro uses a life-span developmental-contextual approach to motivation and engagement and examines the dynamics that prevent and promote successful adaptation in several social contexts (with a focus on the role of peers, parents, teachers) during key life transitions in adolescence and young adulthood. She examines diverse heterogeneous pathways taking both a variable- and a person-oriented approach, using both longitudinal and experience sampling data, and also is involved in the development of interventions to promote engagement. At the moment, together with her research teams, she carries out large scale longitudinal data collections for FinEdu, Eager, Mind-the-Gap and Positive mind studies.

She has published several papers on school engagement and burnout together with the fellows or PIs in journals such as, for example, *Developmental Psychology*, *British Journal of Educational Psychology*, *Journal of Vocational Behavior*, *European Journal of Developmental Psychology*, *Journal of Adolescence* and *Journal of Abnormal Child Psychology*. With her team she has published papers focusing the social context of peer networks, the mutual feeling of antipathy, and the buffering role of mother's affection and parent involvement. Her work revealed the fit of the demands-resources model to school context and the phase-adequate engagement to post-school transition. With her team she also uses twin data to reveal genetic and environmental correlations and interactions. Finally, she and her team developed interventions and revealed the engagement pathways from school to work. Together with Ulrich Trautwein we published a special issue on school success in *European Psychologist*.

Principal Investigators

Katariina Salmela-Aro

Katariina Salmela-Aro gave several keynotes such as in the International Conference on Motivation (ICM), the Australian Association for Research in Education (AARE), an invited talk for the Gender & STEM conference in Berlin, the Gendered pathways conference in the University of Bern, and the Career transition conference at the University of Jyväskylä. In addition she has been busy in organizing and given presentations together with the Pathways PI and fellows several invited symposiums and meetings, such as AERA, SRCD, Gender & STEM, Third decade of Life.

Katariina has been involved in organizing several exciting workshops with international graduate students and postdocs, such as EADP summer school in Greece on risk and resiliency, SRA summer school in Ohio, and preconference workshop in the ISSBD in Shanghai. She has also organized methodological workshops, in which Pathways Fellows could also join in, such as a workshop on person-oriented analyses during spring 2014 and a SEM workshop run by Amiram Vinokur in August 2014 at the University of Helsinki.

Policy Contributions

Katariina has been very actively involved in policy issues in Finland. She has been nominated by the Minister of Education Kiuru, Finland for the new Finnish School reform team 2014-16. This has included close collaboration with the Ministry of Education in several high-level meetings and workshops focusing on School reform. She was invited to give talks on student engagement and related reform by the University of Minneapolis, Michigan State University, and the University of Melbourne (Australia). Katariina has been nominated to the Academy of Finland to the new Strategic funding instrument council, which aims to be funding policy relevant outstanding research.

Katariina has also been dedicating her time to doing large-scale external evaluations, such as evaluating the large scale Millennium centres of excellence in Chile, the European Centre of Advanced study candidates, and the AERA international relations committee.

Mentoring Post-docs and visits

Two of my graduate students thesis were nominated as the best ones in the university of Helsinki and Jyväskylä. In the past year I mentored five post-docs in Helsinki: Heta Tuominen-Soini, Julia Mueller, Jaana Viljaranta, Florencoa Sorthflex and Sointu Leikas. In addition I collaborate with my former post-docs Angela Chow, Jennifer Symonds, Katja Upadyaya and Julia Dietrich. Moreover, I collaborate with the post-docs in other teams such as Anna-Lena Dicke, former postdoc Philip Parker, Håkan Andersson, Ming-Te Wang and Justina Judy. Many of the fellows had also visited Finland during the recent year such as Anna-Lena, Ming-Te Wang, Julia Dietrich, Angela Chow, Justina as well as PIs Barbara Schneider, Jacque Eccles and Ulrich Trautwein. In addition, I supervise several graduate students both in Finland and abroad. In Finland I am on the board of national Graduate school of psychology.

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 well-being 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 thirteen high schools that encourage adolescents to pursue STEM majors in college and occupations in these fields.



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 with Finland, 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 finished 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. This past year we collected three waves of ESM data in Finland and the U.S. in high school science classes. Currently, we are analysing the data and preparing our results for publication. One of our major interests is the conceptualization and operationalism of engagement.

The past year, during which I served as AERA President, was indeed a major learning experience. I co-organised and co-hosted the 2014 AERA conference. We organized over 50 sessions and had presentations by scholars all over the world including a number of PATHWAYS Fellows and PIs. Nearly 14 thousand scholars attended the AERA meeting. This year I joined the World Education Research Association (WERA) board and the PATHWAYS project will be presenting at the annual WERA meeting in Scotland in fall 2014. Professionally, I have had a big year, presenting papers at meetings in Finland, France, India, and Turkey all on topics related to our PATHWAYS work. Currently I am preparing several of these for publication. Additionally, I was asked to be the editor of two major Handbooks on the Sociology of Education, one of which is specifically international. .

Principal Investigators

Barbara Schneider

Policy Contributions

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

I had an interesting paper come out in *Journal of Marriage and the Family*, several under review, and writing chapters with graduate students. I just received additional money from the National Science Foundation to continue our international collaboration with Finland. Together with Katariina Salmela-Aro, I am engaged in writing multiple papers. I also have started to survey a follow-up to my Alfred P. Sloan Study of Youth and Social Development, and have a major new initiative in Detroit to help low income and black males graduate from high school and attend college.

Mentoring activities

This past year I had two post doctoral Fellows Elizabeth Covay and Anna Chmielewski. I am thrilled to report that both have accepted tenure track assistant professor appointments. Beth who is a Pathways associate Fellow will be joining the Foundations faculty at National Lewis University in Chicago and Anna our full time Pathways Fellow will be joining the School of Education at the University of Toronto. This coming year, Justin Bruner will be a Pathways Fellow working between Finland and the U.S. Additionally Justina Judy who is completing her dissertation, will be working with the Helsinki team and is deeply involved in the preparation of several papers and chapters for publication.

Principal Investigators

Ingrid Schoon

Ingrid Schoon is Professor of Human Development and Social Policy at the Institute of Education, University of London, and is Research Director of the Department of Quantitative Social Science. She is director of the international post-doctoral Fellowship programme PATHWAYS to Adulthood (funded by the Jacobs Foundation), is Co-Principal Investigator of the ESRC funded Centre for the Study of Learning and Life Chances in Knowledge Economies and Societies (LLakes), and organises an ESRC funded workshop programme on 'Young People and the Great Recession'. In July 2014 she was appointed as a Research Professor at the Wissenschaftszentrum, Berlin (WZB) where she is conducting research on the 'Transition to Adulthood'.



Ingrid serves on the Advisory Board for the Josef Rowntree Foundation Review of poverty and relationships, and is a member of the Advisory Panel for the Nuffield Twin Study: Understanding pupil's choices. She is also a member of the review panel for the Swiss National Centre of Excellence (NCCR) "LIVES - Overcoming Vulnerability: Life Course Perspectives; the Advisory Board for the German Family Panel PAIRFAM ("Panel Analysis of Intimate Relationships and Family Dynamics"), and the Advisory Board for the German Youth Institute (DJI) Surveys: Aufwachsen in Deutschland: Alltagswelten (AID:A).

She is a member of the editorial board of the European Psychologist, Advances in Life Course Study, Journal of Adolescence, the Journal of Longitudinal and Life Course Studies, and is consulting editor in Developmental Psychology. She served as treasurer for the Society for the Study of Behavioral Development and is founding member of the Society for Longitudinal and Life Course Studies.

Summary of recent work

Being a psychologist by training Ingrid adopts a developmental-contextual framework to gain a better understanding of the factors and processes that promote successful adaptation in a changing social context. In her recent work she focused on the transition to adulthood, developing a diverse pathways view that takes into account variations in transition experiences among different subgroups in the population of young people, and identifying different strategies enabling young people to beat the odds and to become healthy, happy and independent adults. Young people have to carve their pathways to adulthood based on the resources and opportunities that are available to them, and there is more than one optimal pathway to a happy and satisfying life. Examining gender differences in transition experiences, Ingrid has edited a book together with Jacque Eccles on 'Gender differences in aspirations and attainment', to be published by Cambridge University Press in September 2014. The book brings together papers from PATHWAY Fellows and PIs and other international authors within a life course perspective.

Ingrid has been invited to give keynote lectures at the Penn State' Annual Symposium on Family Issues and the International Conference on 'Family health in the life course' held at the Hochschule Osnabrück. She gave invited talks at the Bremen International Graduate School, the 2014 AERA conference in Philadelphia, the Gender & STEM conference in Berlin, and a workshop on the Challenges in the Third Decade of Life organized by the Centre for Advanced Study in the Behavioral Sciences held in Hannover. She organised a PATHWAYS symposium at the EARA conference in Izmir, served as discussant at AERA, and was an Invited Senior at the 2014 SRA/EARA summer school in Utrecht.

Principal Investigators

Ingrid Schoon

Policy Contributions

Ingrid has worked with the Cabinet Office on the role of life skills in promoting positive outcomes and attainment of young people and together with Leslie Gutman has conducted a literature review on 'non-cognitive skills' for the Education Endowment Foundation. She is in the Early Intervention Foundation advisory group for the review of social and emotional skills and works closely with the Education and Employers Taskforce to develop and support strategies for a smooth school to work transition.

Mentoring activities within PATHWAYS

I am currently mentoring three PATHWAYS Fellows John Jerrim, Nicola Pensiero, and Mark Lyons-Amos. The focus of our research lies with the study of social inequalities in educational attainment and their implications for life course transitions, in particular regarding the assumption of new social roles, and variations in adjustment across different countries and during periods of social and economic change. I am also collaborating with Florencia Sortheix, Jacque Eccles, Katariina Salmela-Aro, Meeta Banerjee, Martin Obschonka, Phil Parker, Rainer K.Silbereisen, Sanna Reid and Ulrich Trautwein on questions regarding achievement orientations and their realization in different contexts

Principal Investigators

Rainer K. Silbereisen

Rainer K. 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, and is now editor of the International Journal of Psychology.



Rainer 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, Rainer 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

In recent publications Rainer's research on social change and human behaviour and development the previous results were replicated for Poland as another national context. The research on migration and societal integration lead to further publications, especially a book by Silbereisen et al. on *Diaspora Migration*, published by Ashgate. The research on civic engagement appeared in several publications, and the same applies to the research on entrepreneurship. All projects have a clear PATHWAYS affinity.

In 2013, Rainer organized, with others, an international workshop on Psychological Response to Disaster in Beijing, China, and will do the same with a different faculty in 2014. He has organized symposia at the International Congress of Applied Psychology in Paris in July 2014, and will have symposia at the SRCD conferences in Prague later in the year

Mentoring activities within PATHWAYS

Rainer has been involved in mentoring Martin Obschonka, now Alumnus of Pathways, and the current PATHWAYS fellow, Clemens Lechner. He has also been mentoring for several years, Maria Pavlova, who is to be the next PATHWAYS Fellow at the University of Jena,

Principal Investigators

Ulrich Trautwein

Professor Trautwein is Professor of Educational Science 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 the director of the LEAD Graduate School, which is financed by the Excellence Initiative of the German Federal and State Governments. 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 behaviour.



Summary of recent work

My recent work has focused two Pathways related issues: student motivation in secondary school and personality development of young adults. In terms of research on student motivation, the Tübingen team used data from large-scale studies to study the interplay of expectancy and value beliefs in predicting academic outcomes. Furthermore, the Tübingen team conducted a cluster randomized field trial with more than 80 classes to foster student motivation. In terms of research on personality development, Trautwein and colleagues used the large-scale TOSCA data set to examine how context factors such as academic institutions and living conditions impact personality.

I organized the annual meeting of the network for educational science (sponsored by the Baden-Württemberg Foundation) on transitions to post-secondary schools and the labor market. I also organized the 2014 Tübingen Summer Series on Psychology of Motivation as well as the 2014 Tübingen Personality Research Series (co-organized by Prof. Brent Roberts).

As a mentor within PATHWAYS

Over the last year, I mentored three Pathways Fellows: Jenna Cambria, Anna-Lena Dicke (who is now a postdoc student with Jacque Eccles at UC Irvine), and Richard Göllner.





The mission of the Pathways to Adulthood Programme is to stimulate innovative, interdisciplinary, and comparative research of productive youth development.

PATHWAYS TO ADULTHOOD

Institute of Education
University of London
20 Bedford Way

Telephone +44 (0) 20 7331 5143
Email info@pathwaystoadulthood.org

www.pathwaystoadulthood.org