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INTRODUCTION

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

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

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

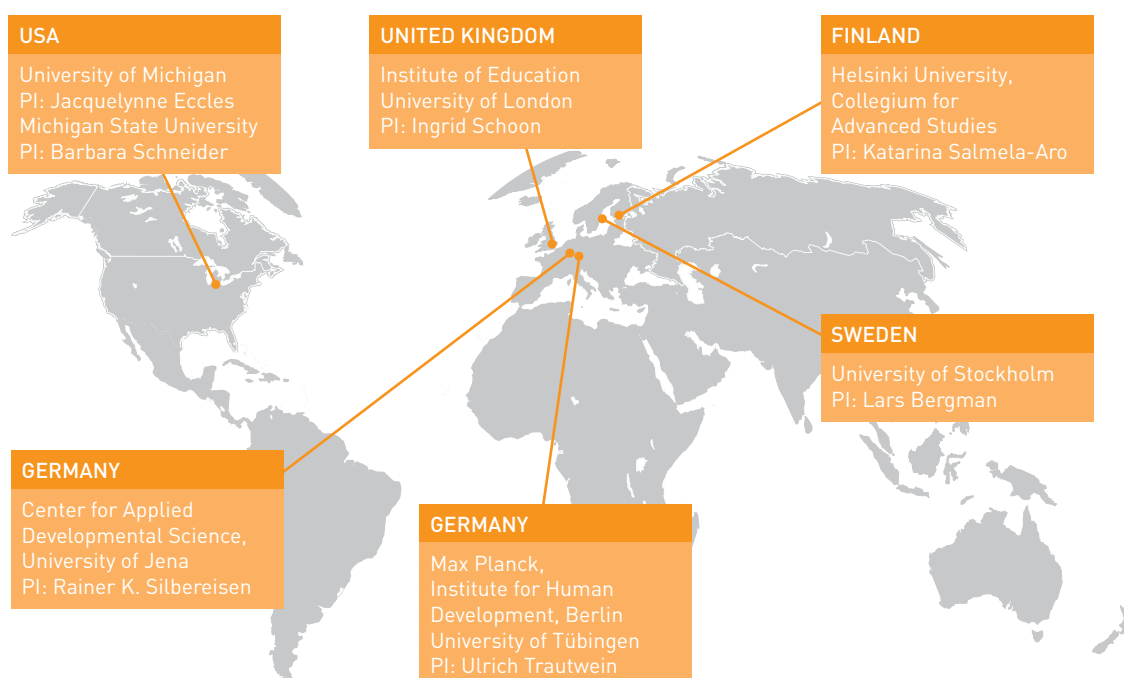


Figure 1:
PATHWAYS network:
Countries,
Institutions, PIs

PATHWAYS TO ADULTHOOD: Transition experiences in times of social change



PATHWAYS TO ADULTHOOD: Transition experiences in times of social change

During 2010/11 the collaborative activities of the PATHWAYS Fellows intensified, leading to a number of co-authored papers examining in more detail the processes specified in the developmental-contextual model of productive youth development, which was outlined in the previous Annual Report to the Jacobs Foundation (Schoon et al., 2010). We now have gained a better understanding of the antecedents, correlates and outcomes associated with engagement in school and work related tasks. Topics covered by the PATHWAYS team include social and gender inequalities in career opportunities (Kathryn Duckworth, John Jerrim, Martin Obschonka, Philip Parker, Lara Perez-Felkner, Jennifer Symonds), the role of school experiences in shaping educational trajectories and subsequent wellbeing (Philip Parker, Jennifer Symonds, Katja Upadyaya, Ming-Te Wang), and the role of school engagement, task values and ability concepts as predictors of educational choice and subsequent outcomes (Angela Chow, Julia Dietrich, Philip Parker, Yi-Miau Tsai, Katja Upadyaya, Ming-Te Wang). In addition two fellows explored in more detail predictors and pathways associated with entrepreneurship in early to mid adulthood (Kathryn Duckworth and Martin Obschonka), highlighting in particular the role of social skills as an important predictor of success.

Social, racial and gender inequalities in career opportunities

Social and gender inequalities in career opportunities are topics that cut through all of the work of the Fellows, highlighting the persistent inequalities faced by young people today. John Jerrim examined cross-national variations in the opportunities afforded to disadvantaged children, focusing in particular on issues of social mobility, attainment gaps, and variations in educational expectations of young people. He shows that in the UK socio-economic gaps in children's test scores are large; that they are apparent from as early as 22 months and that they persist over time (Jerrim & Vignoles, 2011). Using data collected for the Programme for International Student Assessment (PISA) he furthermore illustrates that children from less fortunate families are not as likely to make early plans for university as their affluent peers (Jerrim, 2011). However, only a relatively small proportion of this socio-economic gap can be explained by differences in schools and cognitive ability, and a substantial number of academically able children from all OECD countries do not plan to go to university if they are from a relatively disadvantaged background. The extent to which these findings differ across countries is rather modest, with little evidence to suggest that the UK stands out from other members of the OECD. In her research on

young people's education and labour market transitions following compulsory schooling, Kathryn Duckworth illustrates social variations in the pathways taken: After taking into account prior achievement, the most socio-economically advantaged pupils, as defined by their parents' education or occupational status, are generally more likely to pursue full time education options and are significantly less likely to be NEET (not in education, employment or training) when compared to more socio-economically disadvantaged young people (Crawford, Duckworth, Vignoles & Wyness, 2011).

Our PATHWAYS alumnus, Martin Tomasik, in collaboration with his former advisor Rainer K. Silbereisen, has been engaged in pursuing further analyses and publications on the ways that recent social and economic change affects individual behaviour and development especially in adolescence. They have written a number of invited reviews on the state of knowledge in this field, and they also published research articles on the match between ecological strains and individuals' ways of responding, and how this is associated with their well-being.

Based on evidence from data collected in Germany and Poland, two European countries that underwent dramatic social changes during the last two decades (e.g., political change due to the collapse of socialist regimes, and economic and structural change towards knowledge-based and service-oriented economies) Martin Obschonka shows that the more privileged individuals seem to enjoy fewer threats and more positive challenges associated with macro-level change (Obschonka, Silbereisen & Wasilewski, in press). At the same time, these "winners" of social change, in turn, also represent the smallest of the groups studied, which in turn has implications for social policy. Since the self-employed were most likely to be among the "winners" of social change, the findings furthermore draw attention to the potential benefits of promoting entrepreneurship as a way to prepare young people for the changing demands of the 21st century (Obschonka et al., 2011).

The work of the Fellows did not stop at illustrating persisting inequalities, they furthermore examined mechanisms and processes enabling young people to beat the odds. For example Ming-Te Wang could show that racial socialization from parents can buffer the association between racial discrimination and educational outcomes (Wang & Huguley, in press). Lara Perez-Felkner also studies racial-ethnic and gender inequalities in post-secondary educational attainment and career choice in the US (Perez-Felkner et al., in press). She provides evidence that schools can enable working class, ethnic

minority, and first generation college students to gain admission into some of the nation's most selective universities by promoting the acquisition of social resources (e.g. social relationship and social networks). However matriculation and retention in these universities and other four-year colleges present more complicated and less linear trajectories.

The role of school experiences in shaping educational trajectories and subsequent adjustment and wellbeing

Experiences in the school context are central to the cognitive, social, and psychological development of young people and can provide an important buffer and corrective to disadvantaging experiences in the family (Eccles & Roeser, 2011). School experiences can provide useful feedback to students regarding their strengths and weaknesses (Duckworth & Schoon, 2010), they can however also be challenging. Based on evidence from the UK Jennifer Symonds, for example, illustrates that the transition from primary to secondary education can be a risk factor negatively affecting boys' achievement and girls' self-perceptions, which can furthermore perpetuate gender differences that can persist into later development (Symonds et al., in press). Using data sources collected in the UK and Finland Jennifer also shows that compared to those young people remaining on academic pathways after completing secondary education, those transitioning to more vocational routes report increases in mental health (Symonds et al., in progress). Evidence from Finland, where vocational training is school-based, furthermore suggests that students on the vocational track are more engaged in their schoolwork than those on the academic track (Salmela-Aro and Upadyaya, in press). The school context can thus be a source for exploring and learning new skills and making new friends – but it can also be stressful, requiring students to respond to persistent achievement pressures. Evidence suggests that students can experience levels of burnout that are comparable to levels noted in known stressful occupations (Salmela-Aro et al., 2009). Furthermore, school burnout is consistent over time, with emotional exhaustion and cynicism predicting feelings of inadequacy (Parker & Salmela-Aro, 2011).

Ming-Te Wang used US data to provide evidence that specific features of the school climate can support or undermine students' school engagement (Wang & Holcombe, 2010) and behavioural adjustment in the school context (Wang and Dishion, in press). He argues that schools that provide opportunities for students to feel autonomous, competent, and socially supported enable students to thrive academically (Wang & Eccles, in press). Furthermore, there is evidence from the US to suggest that teachers' perceptions of ability and effort positively predict children's ability self-concepts and performance (Upadyaya & Eccles, in press). Students' experiences of the academic climates in their secondary schools can also influence subject choice, such as preferences for science related subjects (Perez-Felkner et al., in press; Wang, in press). For example, Lara Perez-Felkner could show that both girls and boys in urban schools have lower odds than those in suburban schools of pursuing a STEM (science, technology, engineering or math) major, while girls and boys in rural schools have higher odds of choosing STEM than those in suburban schools. Moreover, the academic school climate has been linked to persistence of science related interests and postsecondary enrolment in STEM subjects (Perez-Felkner et al., in press). Compared to girls and boys in the highest performing schools, those in low-performing schools are less likely to pursue a STEM major. However, not only the academic school climate but also the social domains of the school environment are important to promote student's motivation and engagement in school related tasks, as demonstrated in Ming-Te Wang's study on school engagement from middle to high school (Wang and Eccles, in press).

The role of school influences on educational trajectories of young people was further explored in a seminar on 'happy schools' which was organised by Katariina Salmela-Aro at the University of Helsinki bringing together evidence from different countries of how school characteristics and the larger educational system matter for young people's educational transitions and their productive development. Distinguished international experts, including Jacquelynne Eccles, Hakan Stattin, Christiane Spiel, Marlis Buchman and Motti Frosso-Stefanidi, concluded that schools can promote positive motivation, school engagement and school success of their students by addressing four key developmental needs of young people: relatedness, mattering, competence and autonomy. This can be achieved by increasing adult-youth contacts and positive role models, provision of career guidance and opportunities for students to matter and to experience where their strengths lie. Furthermore it is important that schools adopt a democratic organisation, enabling students to feel connected and to have a voice.

The role of school engagement, task values and ability concepts as predictors of educational choice and subsequent outcomes

Although influenced by structural factors, individual characteristics also play a role in shaping career trajectories and adjustment to transition demands. Individuals are able to have an effect on the contexts, that in turn are shaping them, and individual behaviour is directed by personal goals and interests (Ashby & Schoon, 2010; Eccles, 2009; Salmela-Aro, 2009). For example, Angela Chow demonstrated that priorities in task values regarding different school subjects predict educational choices in addition and above academic attainment in these subjects (Chow & Salmela-Aro, 2011). Academic self concepts also play a crucial role as predictors of educational choices, career aspirations, and selection of university majors (Parker et al., in press; Parker et al., under review). Moreover, believing that most people can learn to be good at math increases the odds of pursuing a science-related major among both males and females (Perez-Felkner et al., in press). In addition to motivational beliefs and cognitions, behavioural engagement plays a vital role in predicting educational success. Students are more likely to succeed academically and are less likely to drop out of school if they attend classes regularly, participate in class and use self-regulated learning strategies to help understand the class material (Wang & Eccles, in press). Ming-Te Wang has examined the multidimensional structure of school engagement, and could confirm its multi-faceted nature (Wang, Willet & Eccles, 2011). Moreover, he argues that different

components of school engagement contribute differently to academic performance, and by investigating different types of engagement (i.e. cognitive, emotional and behavioural aspects of engagement) it will be possible to gain a better understanding of issues related to problems of student boredom and alienation, low achievement and school drop-out (Wang & Eccles, in press). Students who show high levels of engagement and dedication to school work also report high levels of self-esteem, attainment, and psychological wellbeing (Salmela-Aro and Upadyaya, in press). However, those students who are emotionally disengaged from school express the lowest levels of school belonging and are most at risk to develop mental health problems (Wang & Eccles, in press). These students have the cognitive skills to do well at school, they feel the need to attend, but do not like being there.

Generally the findings point to the need to examine distinct engagement profiles, simultaneously considering multiple dimensions, to gain a better understanding of sample heterogeneity and variations in how individuals interact with the wider social context in which they are embedded. The task of negotiating multiple demands in the transition to adulthood depends on individual capacities (agency) as well as the input from significant others in the immediate social context (co-agency) and societal and institutional constraints (structure). A team of Fellows is currently working towards a unifying model of adolescent phase-adequate engagement, focusing in particular on the post-school transition, reviewing and integrating theories and models of motivation, identity formation and career development (Dietrich, Parker, Salmela-Aro and Trautwein, under review). Advancing our knowledge of interactions between personal and contextual factors will provide crucial information for the design and implementation of interventions aiming to promote productive youth development, enabling young people to navigate the challenges and barriers on their journey of becoming independent adults.

DISSEMINATION ACTIVITIES

Conferences and seminars

In addition to two international PATHWAY workshops held in Cumberland Lodge, Great Windsor Park and the Villa Lante in Rome, findings of our collaborative network have been disseminated in a number of dedicated PATHWAYS symposia at international conferences:

- Symposium at the SRCD meeting in Montreal, Canada (30 March- 2 April 2011): A Multi-nation Study of Career Aspirations and the Internal/External Frame of Reference. Organized by Phil Parker with contributions from Julie Ashby, Jacquelynne Eccles, Ingrid Schoon, Philip Parker, Ulrich Trautwein, and Yi-Miau Tsai
- Symposium at the European Congress of Psychology in Istanbul (4-8 July 2011): New Research on Social and Political Change: Cascades of Influence on Individuals' Adaptation and Development. Organized by Rainer K. Silbereisen with contributions from Martin Tomasik, Lara Perez, Barbara Schneider, Claudia Haase, Kathryn Duckworth and Ingrid Schoon
- Symposium at the European Conference in Developmental Psychology in Bergen (23-27 August 2011): From School Burnout to Engagement Organized by Katariina Salmela-Aro and Jacque Eccles with contributions from Julia Dietrich, Jennifer Symonds, Ingrid Schoon, Katja Upadyaya, H. Tuominen-Soin and L. Tynkkynen
- Symposium at the Conference of the International Society for Longitudinal and Lifecourse Studies (SLLS) in Bielefeld (26-28 September 2011). Expression of career goals and subsequent career transitions: The role of context and significant others. Organised by Ingrid Schoon, with contributions by Julia Dietrich, Kathryn Duckworth, Martin Obschonka, Katariina Salmela-Aro and Rainer K. Silbereisen

A seminar focusing on 'Happy School: School engagement and school transitions', organised by Katariina Salmela-Aro, was held at the University of Helsinki (18-19 April 2011). For this event Jacquelynne Eccles gave a keynote lecture by on Gender and Achievement. The proceedings have been published in a position paper. After the success of this first seminar, "Happy School 2" will take place at the Helsinki Collegium for Advanced Studies, 10-11 October 2011

A Caucasus workshop on "Disasters and Bereavement", involving Martin Obschonka and Rainer K. Silbereisen is being held in Tbilisi, Georgia, 3-7 October 2011

Publications

During 2010/11 sixteen papers of the PATHWAYS Fellows have been published in learned journals, twelve papers are in press, and twenty-five papers have been submitted for publication. In addition six book chapters have been published, as well as seven working papers and reports. Furthermore, one book has been co-edited by one of our Fellows, Jennifer Symonds, who also has been commissioned to write a monograph, "Understanding school transition: What happens to children and how to help them" published by Routledge.

The PATHWAYS network will furthermore publish a series of special issues in different learned journals. Currently four special issues are in progress:

- "School Success". A Special Issue of The European Psychologist. Guest Editors: Katariina Salmela-Aro and Ulrich Trautwein
- "Educational and Occupational Planning and Choice as Core Developmental Tasks during the Transition to Adulthood and across the Life Span." Developmental Psychology, Special Section. Editor: Jacquelynne Eccles
- "School Engagement across Developmental Periods, Contexts, and Cultures". Developmental Psychology, Special Section. Guest Editors: Ming-Te Wang, Katariina Salmela-Aro, and Ingrid Schoon
- "Entrepreneurial development: Person and Context". A special issue of International Journal of Developmental Science. Guest Editors: Martin Obschonka and Rainer K. Silbereisen

Prizes and Awards

Five of our current PATHWAYS Fellows have received awards for their outstanding contributions and research excellence: Angela Chow, Julia Dietrich, Martin Obschonka, Katja Upadyaya, and Ming-Te Wang.

Six Fellows had been successful in raising external funding for their research: Angela Chow, Kathryn Duckworth, John Jerrim, Lara Perez-Felkner, Katja Upadyaya, and Ming-Te Wang.

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RESEARCH PROFILES

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Katja Upadyaya
Ming-Te Wang



Principal Investigators

Lars R. Bergman



Lars Bergman is professor in longitudinal methodology and research strategy at the Department of Psychology, Stockholm University. He also is the head of the Stockholm Laboratory for Developmental Science and the IDA longitudinal research program.

During the past academic year Prof. Bergman has collaborated with Katariina Salmela-Aro and her PATHWAYS postdoctoral fellow Miia Bask, both based at the University of Helsinki. They carried out collaborative research, using Finnish data as well as data from the IDA study to examine gendered expectations regarding educational and occupational outcomes in middle adulthood. This work has now expanded, and with Dr. Laura Ferrer Wreder at the Department of Psychology, Stockholm University as the lead researcher, the importance of parents' and children's career aspirations for later career outcome is studied in relation to conventional factors like intelligence, school grades, and parental socioeconomic status.

Plans for additional collaborative PATHWAYS work has further advanced and focuses more on positive adaptation. It includes collaboration with other PATHWAYS researchers, for example Ingrid Schoon and her team in London, to gain a better understanding of the development of intellectually gifted children, studying their careers into midlife. Aspects of this research include a societal aspect (Does society make "optimal" use of its talented youth? To what extent do their careers depend on gender and parental socioeconomic status?) and it also includes an individual aspect (How do these children adjust through development?). The role of recurrent education in picking up "wasted talents" will also be studied. Among other research directions, this is an area that is well aligned to plans to appoint a PATHWAYS post doctoral fellow at Stockholm University in the near future. This project has just been funded by the Swedish Academy of Sciences as a two year project, starting in the fall of 2011.

In collaboration with Andras Vargha, Reformed Church University, Budapest, Alexander von Eye, Michigan State University, and Jari-Erik Nurmi, University of Jyväskylä, methodological work is carried out concerning the development and implementation of person-oriented methods aimed to be used in PATHWAYS research. Such methods enable us to study developmental patterns and capture more of the functioning individual "as a whole" than is possible with standard variable-oriented methods. An empirical research field within PATHWAYS that will especially profit from these methodological developments is the study of the long-term importance of children's competence profiles. For instance, recent research based on data from the Swedish longitudinal program Individual Development and Adaptation (IDA) has pointed to the primary importance of high task persistence in the competence profile for men's vocational career.

Selected Publications

- Bergman, L. R., Andershed, H. & Andershed, A-K (in press). Types and continua in developmental psychopathology: Problem behaviors in school and their relationship to later antisocial behavior. *Development and Psychopathology*.
- Andersson, H., & Bergman, L. R. (2011). The Role of Task Persistence in Young Adolescence for Successful Educational and Occupational Attainment in Middle Adulthood. *Developmental Psychology*, 47(4), 950-960.
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Principal Investigators

Jacque Eccles



Prof. Jacquelynne Eccles is the McKeachie/Pintrich Distinguished University Professor of Psychology and Education at the University of Michigan. She is also director of the Achievement Research Laboratory at the Institute for Social Research, where she directs 3 large-scale longitudinal studies on youth development – which are used by the PATHWAY'S fellows in comparative studies to similar projects in Finland, the UK, and Germany. Finally, she and Dr. Schneider have just received a new NSF grant to do comparative projects using one of the Eccles' data sets and one of Schneider's data sets to study the developmental trajectories linked to STEM and other occupational choices. This work directly involves two of Eccles' current PATHWAY'S fellows (Ming-Te Wang and Yi-Miau Tsai), one associate PATHWAY'S fellow (Katja Upadyaya, who works with both Eccles and Salmela-Aro), and new PATHWAY'S associate fellow (Heather Preiss) who is just joining the network and is jointly funded by the University of Michigan and the NSF grant. Ming-Te Wang is the Co-PI on this grant. This project also includes several associate PATHWAY'S fellows working with Dr. Schneider.

Over the last year, Eccles has worked directly with all of the PATHWAY'S fellows and associate fellows listed above. She has also edited a special section for the journal *Developmental Psychology* on educational and occupational pathways in which several PATHWAY'S projects are reported. These papers are in their final stages and the special section should be published by mid 2012. She has also worked with Ingrid Schoon on an edited book on *Gender Roles and Life Span Development* that is under contract and should be published sometime in later 2012. Finally, Eccles worked with Schoon and other scholars from the USA, the UK and Germany on an effort to facilitate cross national comparative studies of the impact of the transition on youth today. Eccles, along with Schoon, Schneider, G. Elder, R. Crosnoe, and C. Muller wrote and received a grant from SRCD for a meeting in Ann Arbor of an international group of scholars as part of this initiative. This meeting, along with two others that were held in Germany and the UK, has stimulated several collaborative projects, some of which will involve PATHWAY'S fellows and faculty.

Eccles' PATHWAY'S related work primarily focuses educational and occupational transitions as well as the effects of social contexts on achievement, aspirations, and choices. This work has not only resulted in a number of publications over the last year but has also had direct policy implications and has led to several invited international presentations on the role of schools on human development and the ontogeny of interests in STEM professions. In addition, this year Eccles received two major awards for her work: The Life Time Achievement Award from the Self Society and the Bronfenbrenner Life Time Achievement Award for Applied Developmental Research from Division 7 of the APA. Finally, she will be receiving an Honorary Degree from the University of LAVAL in Quebec City, Canada and will become a fellow of the IOE at the University of London in the spring of 2012.

Selected Publications

Papers

- Eccles, J.S. & Roeser, R. W. (2011). Schools as developmental contexts during adolescence. *Journal of Research on Adolescence*, 21, 225-241.
- Fredricks, J. & Eccles, J. S. (2010). Breadth of extracurricular participation and adolescent adjustment among African-American and European American youth. *Journal of Research on Adolescence*, 20(2), 307-333.
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- Lehnart, J., Neyer, F. J., & Eccles, J. S. (2010). Long-term effects of social investment: The case of partnering in young adulthood. *Journal of Personality*, 78 (2), 639-70.
- Malanchuk, O., Messersmith, E. E., & Eccles, J. S. (2010). The ontogeny of career identities in adolescence. *New Directions in Child and Adolescent Development*. 130, 97-110.

Nagy, G., Watt, H.M.G., Eccles, J.S., Trautwein, U., Lüdtke, O., & Baumert, J. (2010). The Development of Students' Mathematics Self-Concept in Relation to Gender: Different Countries, Different Trajectories? *Journal of Research on Adolescence*, 20 (2), 482-506.

Books

Meece, J. & Eccles, J. S. (Eds.) (2010). *Handbook of Research on Schools, Schooling, and Human Development*. New York: Routledge.

Book Chapters

Eccles, J. S. & Roeser, R. W. (2010). An ecological view of schools and development. In J. L. Meece and J. S. Eccles (Eds.), *Handbook of Research on Schools, Schooling, and Human Development*, (pp. 6-21). New York: Routledge.

Barber, B. L., Stone, M. R., & Eccles, J. S. (2010). Protect, prepare, support, and engage: The roles of school-based extracurricular activities in students' development. In J. L. Meece and J. S. Eccles (Eds.), *Handbook of Research on Schools, Schooling, and Human Development*, (pp. 6-21). New York: Routledge.

Invited Presentations

Keynote address on Gender and Achievement for Division 15 at APA, San Diego, CA, August 2010.

Keynote address on Motivation and Achievement at bMRI Symposium on Motivation, Seoul Korea, September 2010.

Invited address on Gender and Achievement at Northern Illinois University, October 2010.

Keynote address on Motivation and Choice at the Annual Jacobs Foundation Young Fellows Retreat, Marback Castle, Germany, April 2011.

Annual International Collegium Lecture on Gender and Achievement at the Helsinki Collegium for Advanced Studies, April 2011.

Keynote address on Gender and Achievement, Festschrift for Aletha Huston, Austin Texas. May 2011.

Keynote Address on Motivation and Achievement, 6th Biennial Self Conference, Quebec City, Canada, June 2011

Presentation to the School of Engineering at UM on Expectancy Value Model, July 2011

Keynote address on Motivation and Life Choices 2nd World Congress of Positive Psychology, Philadelphia, July 2011

Keynote address on Studying Contexts at the Biennial Meeting of the European Congress on Child Development, Bergen, Norway, August 2011

Invited talk and workshop on Gender and Achievement at University of Oslo, Norway, August 2011.

Principal Investigators

Katariina Salmela-Aro



Prof. Katariina Salmela-Aro is professor and Research Director in the Helsinki Collegium for Advanced Studies and in the Centre of Excellence in Learning and Motivation. She is also Director of two longitudinal studies FinEdu and HELS on school and work engagement, transitions, burnout and transition to the labour market or tertiary education, and a PI in several intervention studies such as LINNEA.

Salmela-Aro's main research interests include life transitions, motivation, wellbeing, burnout, engagement and related interventions. She has also developed several methods for research and intervention purposes such as school burnout and engagement scales.

Over the last year, Prof. Salmela-Aro has been mentoring Angela Chow, Julia Dietrich and Jennifer Symonds. Several collaborative projects with PATHWAYS PIs and fellows were started or continued, including collaborations with the University of Tübingen, the Institute of Education in London, and the University of Michigan. Several papers are now in press or are under review by leading journals in the field. Salmela-Aro's PATHWAYS related work primarily focuses engagement and burnout and educational transitions as well as personal goals, aspirations, and choices in social context. Salmela-Aro has received two large grants from the Academy of Finland to support this research further.

The ongoing research programme has not only resulted in a number of publications over the last year but has also had direct policy implications. Prof. Salmela-Aro has given several invited presentations and is a high-impact expert in the Academy of Finland and Ministry of Education on happy school, gap years, school transitions, engagement and burnout. Salmela-Aro has for example been asked by the Academy of Finland to act as an Invited Chair to carry out an evaluation of Finnish Psychology from 2009-2011,

Furthermore, this year Salmela-Aro organised several conferences in Finland, most notably Happy School 1 and 2; as well as several invited symposium such as one on school engagement in Bergen. The speakers included several PATHWAYS fellows (Symonds, Upadaya, Dietrich), as well as Tynkkynen, Tuominen-Soini and discussant Jacque Eccles. Based on the Happy School conference a position paper has been written on school engagement and school transitions.

Selected Publications

Papers

Kiuru, N., Burk, W.J., Laursen, B., Nurmi, J.-E., & Salmela-Aro, K. (in press). Is depression

contagious? A test of alternative peer socialization mechanisms of depressive symptoms in adolescent friendship networks. *Journal of Adolescent Health*.

Kiuru, N., Haverinen, K., Salmela-Aro, K., Nurmi, J.-E., Savolainen, H. & Holopainen, L. (in press) Students with reading and spelling disabilities: Peer groups and educational attainment in secondary education. *Journal of Learning Disabilities*.

Laursen, B., Bukowski, W., Kiuru, N., Nurmi, J.-E. & Salmela-Aro, K. (in press). Opposites detract: Middle school peer group antipathies. *Journal of Experimental Child Psychology*.

Marttinen, E. & Salmela-Aro, K. (in press). Personal goal orientations and subjective well-being of adolescents. *Japanese Psychological Research*

Rouhe, H., Salmela-Aro, K., Halmesmäki, E., Gessler, M., & Saisto, T. (in press). Mental health problems common in women with fear of childbirth. *BJOG*.

Salmela-Aro, K. (in press) Transition to parenthood and positive parenting: Longitudinal and intervention approaches. *European Journal of Developmental Psychology*.

- Salmela-Aro, K., Feldt, T., Rantanen, J., Hyvönen, K. & Tilleman, K. (in press). Bergen Burnout Inventory (BBI) - Reliability and Validity among Finnish and Estonian Managers. *International Archives of Occupational and Environmental Health*.
- Salmela-Aro, K., Mutanen, P. & Vuori, J. (in press). Promoting career preparedness and intrinsic work-goal motivation: RCT Intervention. *Journal of Vocational Behavior*.
- Salmela-Aro, K., Read, S., Rouhe, H., Halmesmäki, E., Toivanen, R., Tokola, M. & Saisto, T. (in Press). Promoting Positive Motherhood among Pregnant Women with an Intense Fear of Childbirth: RCT Intervention. *Journal of Health Psychology*.
- Salmela-Aro, K. & Tuominen-Soini, H. (in press). Adolescents' life satisfaction during the transition to post-comprehensive education: antecedents and consequences. *Journal of Happiness Studies*.
- Salmela-Aro, K., Tynkkynen, L. & Vuori, J. (in press). Parents' work burnout and adolescents' school burnout: Are they shared. *European Journal of Developmental Psychology*.
- Salmela-Aro, K. & Upadyaya, K. (in press). Schoolwork engagement inventory – energy, dedication and absorption (EDA). *European Journal of Psychological Assessment*.
- Tolvanen, A., Kiuru, N., Hakkarainen, K., Lonka, K., Inkinen, M. & Salmela-Aro, K. (in press) Estimation of Nonlinear Growth Component in Multilevel Modeling: A Research Application in the Daily Dynamics of Competence, Challenge and Affects. *International Journal of Behavioral Development*.
- Tuominen-Soini, H., Salmela-Aro, K., Niemivirta, M. (in press). Stability and change in achievement goal orientations: A person-centered approach. *Contemporary Educational Psychology*.
- Chow, A., & Salmela-Aro, K. (2011). Task-values across subject domains: A gender comparison using a person-centred approach. *International Journal of Behavioral Development*, 35(3) 202–209.
- Kiuru, N., Burk, W., Laursen, B., Nurmi, J.-E. & Salmela-Aro, K. (2010). Pressure to drink but not to smoke : Disentangling selection and socialization in adolescent friendship networks and peer groups. *Journal of Adolescence*, 33 (6), 801-812.
- Kiuru, N., Leskinen, E., Nurmi, J. & Salmela-Aro, K. (2011). Depressive Symptoms during Adolescence: Do Learning Difficulties Matter? *International Journal of Behavioral Development*, 35(4), 298-306.
- Parker, P.D. & Salmela-Aro, K. (2011). Developmental Processes in School Burnout: A Comparison of Major Developmental Models. *Learning and Individual Differences* 21(2), 244-248.
- Pyhältö, K., Pietarinen, J. & Salmela-Aro, K. (in press). Teacher-working environment fit as a framework for burnout experienced by Finnish teachers. *Teaching and Teacher Education*.
- Salmela-Aro, K. (2011). Personal goals and well-being: How do young people navigate their lives? In S Schulman & JE Nurmi (Eds) The role of goals in navigating individual lives during emerging adulthood. *New Directions for Child and Adolescent Development*, 130, 13-26.
- Salmela-Aro, K., Kiuru, N., Nurmi, J.-E. & Eerola, M. (2011). Mapping Pathways to Adulthood among Finnish University Students: Sequences, Patterns and Variations in Family- and Work-related Roles. *Advances in Life Course Research*, 16(1), 25-41
- Salmela-Aro, K., Näätänen, P., Tolvanen, A. & Nurmi, J.-E. (2011). Changes in goal-related affects decrease burnout during a group psychotherapy intervention. *European Journal of Work and Organizational Psychology*, 20(4), 451-466.
- Salmela-Aro, K., Nurmi, J.-E., Saisto, T. & Halmesmäki, E. (2010). Spousal support for personal goals and relationship satisfaction among women during the transition to parenthood. *International Journal of Behavioral Development*, 34, 229-237.
- Salmela-Aro, K., Tolvanen, A. & Nurmi, J.-E. (2011). Social strategies during university studies predict early career work burnout and Engagement: 18-year longitudinal Study. *Journal of Vocational Behavior*, 79(1), 145-157
- Tynkkynen, L., Nurmi, J.-E. & Salmela-Aro, K. (2010). Career goal-related social ties during two educational transitions: Antecedents and consequences. *Journal of Vocational Behavior*, 76(3), 448-457
- Vasalampi, K., Salmela-Aro, K. & Nurmi, J.-E. (2010). Education-related goal appraisals and self-esteem during the transition to secondary education: A Longitudinal study. *International Journal of Behavioral Development*, 34(6), 481-490.
- Salmela-Aro, K. (2011). Position paper. From school burnout to engagement. Academy of Finland.

Book chapters

- Salmela-Aro, K. (in press). Motivation, Burnout and Engagement during Critical Transitions from School to Work. In Päivi Tynjälä, Marja-Leena Stenström and Marjatta Saarnivaara (Eds), *"Nothing is Permanent but Change" – Transitions, Transformations and Transgressions in Learning and Education*.
- Salmela-Aro, K. (in press) Stages of Adolescence. In B. Brown & M. Prinstein (Eds). *Encyclopedia of Adolescence*. Elsevier.
- Salmela-Aro, K., (in press) From burnout to engagement during transition from school to work. In A. Eflikdes (eds). *Quality of life: A positive psychology perspective*. Springer.

Principal Investigators

Barbara Schneider



In the past year Prof. Schneider has mentored and worked with Dr. Lara Perez-Felkner, a postdoctoral fellow who has recently joined the PATHWAYS team. Drs Schneider and Perez-Felkner currently work together in examining the determinants of underrepresentation of females and minority groups in specialized fields in postsecondary education and have secured a grant at NORC at the University of Chicago.

Dr. Schneider has also continued her work with aligned ambitions and pursuit of postsecondary opportunities in STEM majors. She has spent much of the last year scaling-up the College Ambition Program (CAP), an initiative funded by the National Science Foundation (NSF) that tests a model for promoting a STEM college-going culture in high schools. Schneider has also continued her work with the Center for the Analysis of Pathways from Childhood to Adulthood (CAPCA), the goal of which is to stimulate innovative, interdisciplinary analyses and interpretations of existing longitudinal datasets bearing on pathways through human development—as part of this initiative she completed a new manuscript with two other CAPCA researchers. Also on-going is her interdisciplinary evaluation of the Michigan Merit Curriculum funded by the Institute of Education Sciences, U.S. Department of Education.

This past year she and Professor Eccles received a grant from NSF to study early predictors of interest in STEM. This work exemplifies the Pathways model, in that it combines datasets from two empirical studies to examine early interest in career choices through adolescents into adulthood (that aspect of this work is currently under review). As the director of Advancing Research and Communication in STEM (ARC), an interdisciplinary academic research centre funded by NSF, she has begun new work to establish principles for assessing the methodological rigor of completed empirical studies.

Selected Publications

Papers

Schneider, B. (in press). The human face of workplace flexibility. *The ANNALS of the American Academy of Political and Social Science*.

Schneider, B., Christensen, K., & Butler, D. (in press) Families with School Age Children. *The Future of Children*. Princeton, NJ. The Brookings Institute.

Offer, S. & Schneider, B. (in press). Revisiting the Gender Gap in Time-Use Patterns: Multitasking and Well-Being Among Mothers and Fathers in Dual Earner Families. *American Sociological Review*.

Perez-Felkner, L., Grogan, E., McDonald, S.K., & Schneider, B. (under review) Factors sustaining interests in STEM: A gender comparison. *Developmental Psychology*. Special Issue on "Occupational planning and choice as developmental tasks across the life span."

Book Chapters

Perez-Felkner, L., Hedberg, E. C., & Schneider, B. (in press). The changing landscape for educational opportunity: Enhancing the public option for black youth. In D. Slaughter-Defoe, H. Stevenson, E. Arrington, & D. Johnson (eds.), *Black educational choice in a climate of school reform: Consequences for K-12 student learning and development*. Santa Barbara, CA: Praeger.

Offer, S., & Schneider, B. (2010). Multitasking among working families: A strategy for dealing with the time squeeze. In K. Christensen & B. Schneider (eds.), *Workplace flexibility: Realigning 20th century jobs to 21st century workers* (pp. 43-56). Ithaca, NY: Cornell University Press.

Invited Presentations

Schneider, B. *Gender differences in motivational and cognitive abilities: The role of engagement in transitioning to STEM careers*. Presented at the 12th European Congress of Psychology, Istanbul, Turkey, July 2011.

Grant Awards

Eccles, J. S. & Schneider, B. (2011). Tracing and Linking Contextual and Psychological Factors to STEM Career Choice. Funder: National Science Foundation, PI Jacquelynne Eccles and Co-PI Barbara Schneider

Principal Investigators

Ingrid Schoon



Prof. Ingrid Schoon is the Director of the PATHWAYS international Fellowship programme, and Research Director of the Centre for the Study of Youth Transitions (CAYT) funded by the UK Department for Education. She is currently mentoring two PATHWAYS Fellows Kathryn Duckworth and John Jerrim (who himself was successful in gaining funding for his research from the UK Economic and Social Research Council and who has joined the PATHWAYS network). Her research is focused on variations in transitions from dependent childhood to independent adulthood, in particular the study of transitions from school to work, social inequalities in aspirations, attainment, and health, as well as the study of risk and resilience and how to overcome potentially adverse circumstances.

During the last academic year she has organised two PATHWAYS workshops at Cumberland Lodge, Windsor and in Rome (together with Prof. Salmela-Aro). Together with Prof. Eccles she is currently editing a book on gender differences in aspirations and attainment, following on from the PATHWAYS international conference on the same topic which was held in London in 2010. The book will be published by Cambridge University Press.

During the past year, PATHWAYS related research activities involved collaboration with colleagues at the Universities of Michigan, Jena, Tübingen, Helsinki, and Stockholm. Nationally, she is involved as research director of the Centre for the Analysis of Youth Transitions (CAYT), funded by the Department of Education, and is project leader for the Economic and Social Research Council (ESRC) funded Centre for the Study of Learning and Lifechances in the Knowledge Economies (LLakes). Her work for the Centre for the Analysis of Youth Transitions comprises interdisciplinary collaboration with the Institute for Fiscal Studies (Paul Johnson and Alissa Goodman), the National Centre for Social Research (Carli Lessof and Andy Ross), and colleagues from the IoE (Anna Vignoles). Her work for the LLakes Center is done in collaboration with Andy Green, Lorna Unwin, and Karen Evans (all at the Institute of Education), and Martin Weale (Bank of England). Together with Barbara Maughan (Institute of Psychiatry) she has received funding from the Nuffield Foundation for a project on Wellbeing in children, and together with Leslie Gutman (IoE) and Ricardo Sabbates (University of Essex) she is collaborating on an ESRC funded project on Uncertain Career Aspirations.

Advisory Roles and Policy Contributions

Prof. Schoon has provided expert advice to the Department for Education, Department for Health, and the Department for Work and Pensions.

Selected Publications

Papers

- Ashby, J. S. & Schoon, I. (2010) The role of aspirations, ambition and gender in predicting adult social status and earnings. *Journal of Vocational Behavior*, 77(3), 350 – 360
- Duckworth, K., & Schoon, I (2010). Progress and attainment during primary school: the roles of literacy, numeracy and self-regulation. *Longitudinal and Life Course Studies*, 1(3), 223-240
- Hardt, J., Vellaisamy, P., & Schoon, I. (2010). Sequelae of prospective versus retrospective reports of adverse childhood experiences. *Psychological Reports*, 107, 425-440.

- Richards, M. & Schoon, I. (2010). Cognitive Capital. Special Issue. Guest editors. *Longitudinal and Life Course Studies*, 1(3), pp. 241-258
- Schoon, I (2010). Childhood cognitive ability and adult academic attainment: evidence from three British cohort studies. *Longitudinal and Life Course Studies*, 1(3), 241-258
- Schoon, I. (2010). Planning for the future. Changing education expectations in three British cohorts. *Historical Social Research*, 35(2), 99-119
- Schoon, I., & Cheng, H. (2011). Determinants of Political Trust: A Lifetime Learning Model. *Developmental Psychology*, 47(3), 619-631.
- Schoon, I., Cheng, H., Gale, C. R., Batty, G. D., & Deary, I. J. (2010). Social status, cognitive ability, and educational attainment as predictors of liberal social attitudes and political trust. *Intelligence*, 38, 144-150.
- Schoon, I. & Duckworth, K., (2010). Leaving school early and making it. *European Psychologist*, 15, 283-292

- Schoon, I., Hope, S., Ross, A. & Duckworth, K. (2010). Family hardship and children's development: the early years. *Longitudinal and Life Course Studies*, 1(3), 209-222
- Schoon, I., Jones, E., Cheng, H., & Maughan, B. (2011). Family hardship, family instability and children's cognitive development. *Journal of Epidemiology and Community Health*.
- Schoon, I., & Polek, E. (2011). Teenage career aspirations and adult career attainment: The role of gender, social background and general cognitive ability. *International Journal of Behavioral Development*, 35(3), 210-217.
- Schoon, I., & Polek, E. (2011). Pathways to Economic Well-Being Among Teenage Mothers in Great Britain. *European Psychologist*, 16(1), 11-20.
- Schoon, I., Parsons, S., Rush, R., & Law, J. (2010). Children's language ability and psychosocial development: A twenty-nine year follow-up study. *Pediatrics*, 126, 73-80
- Schoon, I., Parsons, S., Rush, R., & Law, J. (2010). Childhood language skills and adult literacy: a twenty-nine year follow-up study. *Pediatrics*, 125, 459-466
- Book chapters**
- Bartley, M., Schoon, I., Mitchell, R. & Blane, D. (2010). Resilience as an asset for healthy development. In: Morgan, A., Ziglio, E., and Davies, M. (Eds.). *Health Assets in a Global Context: Theory, Methods, Action: Investing in Assets of Individuals, Communities and Organizations*. (101-116). New York: Springer
- Schoon, I. (2011). A developmental-contextual systems model of resilience. In: M. Ungar (Ed.). *The Social Ecology of Resilience: A handbook of theory and practice*. New York: Springer Science + Business Media.
- Schoon, I. (2010). Social change and transition experiences among young adults in Britain. In K. R. Silbereisen & X. Chen (Eds.), *Social change and human development: concepts and results* (245-270). London: Sage.

Principal Investigators

Rainer K. Silbereisen



Professor Rainer K. Silbereisen is Chair of Developmental Psychology and Director of the Center for Applied Developmental Science at the University of Jena, Germany. He is also Adjunct Professor at the Pennsylvania State University, USA. He is principle investigator in a 8-year project on the effect of social change on individual behavior and development in Germany. An affiliate project is under way in Poland and related research has been conducted in Italy and China. Further he is Director of an international and interdisciplinary consortium on acculturation and immigration in Germany and Israel. He is involved in heading a research program on entrepreneurship and its early antecedents, conducted together with economists. Finally, he has been in charge together with colleagues in various studies on the prevention of the use of psychoactive substances in adolescence and prevention through community empowerment. His main research interest is life span human development, framed within a biopsychosocial paradigm, with special emphases on adolescence, adulthood, and aging. Many studies have addressed the role of interpersonal, social and cultural contexts. He is currently President of the International Union of Psychological Science, the umbrella organization of about 80 national scientific organizations of psychology around the globe.

Over the last year, Professor Silbereisen has been collaborating within the PATHWAYS framework with Martin Tomasik, alumni of the program. This follows up joint research endeavors in his earlier mentoring role. Further, he began a new mentor relationship with Martin Obschonka, a young investigator with a background in psychology and economics. The main aim is to investigate antecedents and consequences of entrepreneurial behavior with emphasis on the influence of social change and innovative business ventures. This research has been carried out with economists in Jena and also in collaboration with researchers from the PATHWAYS framework, for instance at the Institute of Education in London. Other collaborations include the Institute for Educational Science at the University of Tübingen.

Several papers are now published, in press or under review and the data refer to the Thuringia Founder Study, the Jena Study on Social Change and Human Development, and affiliated research programs in other countries. It is now clear, for instance, that the recent political and economic transformations in countries like Germany and Poland not only resulted in problems but obviously also in benefits. Whether people can take advantage of social change, psychologically speaking, depends on issues such as their control beliefs and their optimism, and these conditions are malleable and open to intervention.

Policy Contributions

Professor Silbereisen has been serving on a World Bank research group on the great recession as a consultant, and also helped to set up a new research program. As member of the jury for the Jacobs Research Prize he serves to promote ways of realizing the innovative potential of young people. More recently he has stimulated capacity building measures concerning the contribution of psychologists to overcoming health problems rooted in disasters in various regions of the world, such as the Southern Caucasus and the Asia-Pacific region. This work is pursued in collaboration with the International Union of Psychological Science (IUPsyS) and the International Council for Science (ICSU). |

Media Coverage

Professor Silbereisen is often contacted by media concerning behaviors of young people that conflict with norms and expectations, such as the recent trends in the misuse of psychoactive substances, suicide among teenagers, or inappropriate intimate relations between generations. The background always is to avoid premature attributions to personality features of individuals and instead show the interaction with current problems, such as the uncertainty about how to build ones future.

Selected Publications

Papers

- Haase, C. M., Heckhausen, J. & Silbereisen R. K. (in press). The interplay of occupational motivation and well-being during the transition from university to work. *Developmental Psychology*.
- Obschonka, M., Silbereisen, R. K., & Wasilewski, J. (in press). Constellations of new demands concerning careers and jobs: Results from a two-country study on social and economic change. *Journal of Vocational Behavior*.
- Obschonka, M., Goethner, M., Silbereisen, R. K., & Cantner, U (in press). Social identity and the transition to entrepreneurship: The role of group identification with workplace peers. *Journal of Vocational Behavior*.
- Obschonka, M., Silbereisen, R. K., & Schmitt-Rodermund, E. (in press). Successful entrepreneurship as developmental outcome: A path model from a life span perspective of human development. *European Psychologist*.
- Obschonka, M., Silbereisen, R. K., & Schmitt-Rodermund, E. (in press). Explaining entrepreneurial behavior: Dispositional personality traits, growth of personal entrepreneurial resources, and business idea generation. *The Career Development Quarterly*.
- Pavlova, M. K. & Silbereisen, R. K. (in press). Perceived level and appraisal of the growing expectations for active ageing among the young old in Germany. *Research on Aging*.
- Pinquart, M & Silbereisen, R. K. (in press). Youth in Europe. In M. H. Bornstein (ed.), *Handbook of cross-cultural developmental science*. Hove, UK: Psychology Press/Taylor&Francis
- Pinquart, M. & Silbereisen, R. K. (in press). Entwicklung des Umweltbewusstseins ueber die Lebensspanne. *Umweltpsychologie*.
- Pinquart, M., Silbereisen, R.K. & Gruemer, S. (in press). Perceived demands of social change and depressive symptoms in adolescents from different educational tracks. *Youth & Society*.
- Silbereisen, R. K., Titzmann, P., Michel, A., Sagi-Schwartz, A., & Lavee, Y. (in press). Commonalities and differences in psychosocial outcomes of developmental transitions between natives and immigrants in Germany. In A. S. Masten., K. Liebkind, & D. J. Hernandez, *Capitalizing on migration: The potential of immigrants*. New York: Cambridge University Press
- Stoessel, K., Titzmann, P. F., & Silbereisen, R. K. (in press). Children's psychosocial development during the transition to kindergarten and school: A comparison between natives and immigrants in Germany. *European Journal of Developmental Science*.
- Titzmann, P. F., & Silbereisen, R. K. (in press). Acculturation or development? Autonomy expectations among ethnic German immigrant adolescents and their native German age-mates. *Child Development*.
- Titzmann, P. F. (in press). Growing up too soon? Parentification among immigrant and native youth in Germany. *Journal of Youth and Adolescence*.
- Tomasik, M. J., & Silbereisen, R. K. (in press). Beneficial effects of disengagement from futile struggles with occupational planning. *Developmental Psychology*.
- Tomasik, M. J., & Silbereisen, R. K. (in press). Social change and adolescent developmental tasks: The case of post-communist Europe. *Child Development Research*.
- Haase, C. M., Landberg, M., Lüdke, K., Schmidt, C., & Silbereisen, R. K. (2011). The later, the better? Early, average, and late timing of sexual experiences in adolescence and psychosocial adjustment. *European Psychologist*.
- Haase, C. M. & Silbereisen, R. K., (2011). Effects of positive affect on risk perceptions in adolescence and young adulthood. *Journal of Adolescence*, 34, 29-37.
- Koerner, A., Reitzle, M., & Silbereisen, R. K. (2011). Work-related demands and life satisfaction: The effects of engagement and disengagement among employed and long-term unemployed people. *Journal of Vocational Behavior*.
- Michel, A., Titzmann, P., & Silbereisen, R. K. (2011). Psychological Adaptation of Adolescent Immigrants from the Former Soviet Union in Germany: Acculturation vs. Age-Related Time Trends. *Journal of Cross-Cultural Psychology*.
- Obschonka, M., Silbereisen, R. K., Schmitt-Rodermund, E. & Stuetzer, M. (2011). Nascent entrepreneurship and the developing individual: Early entrepreneurial competence in adolescence and venture creation success during the career. *Journal of Vocational Behavior*, 79, 121-133

- Obschonka, M., Silbereisen, R. K., & Schmitt-Rodermund, E. (2010). Entrepreneurial intention as developmental outcome. *Journal of Vocational Behavior* 77(1), 63-72.
- Pavlova, M. K., Haase, C. M. & Silbereisen, R. K. (2011). Early, on-time, and late behavioural autonomy in adolescence: Psychosocial correlates in young and middle adulthood. *Journal of Adolescence*. 34, 361–337.
- Pinquart, M., Stotzka, C. & Silbereisen, R. K. (2010). Ambivalence in decisions about childbearing. *Journal of Reproductive and Infant Psychology*, 28(2), 212-220
- Silbereisen, R. K. & Tomasik, M. J. (2010). Human behavior in response to social change. A guide to the Special Section. *European Psychologist*, 15, 243-245.
- Titzmann, P. F., Silbereisen, R. K., & Mesch, G. (2011). Change in Friendship Homophily: A German Israeli Comparison of Adolescent Immigrants. *Journal of Cross-Cultural Psychology*.
- Titzmann, P. F., Silbereisen, R. K., Mesch, G., & Schmitt-Rodermund, E. (2011). Migration-specific hassles among adolescent immigrants from the former Soviet Union in Germany and Israel. *Journal of Cross-Cultural Psychology*, 42, 777-794.
- Tomasik, M., Silbereisen, R. K., & Heckhausen, J. (2010). Is it adaptive to disengage from demands of social change? Adjustment to developmental barriers in opportunity-deprived regions. *Motivation and Emotion*, 34, 384-398.
- Tomasik, M. J., Silbereisen, R. K., & Pinquart, M. (2010). Individuals negotiating demands of social and economic change: A control theoretical approach. *European Psychologist*, 15, 246-259.
- Weichold, K., Brambosch, A., & Silbereisen, R. K. (2010). Do Girls Profit More? Gender-Specific Effectiveness of a Life Skills Program against Alcohol Consumption in Early Adolescence. *Journal of Early Adolescence*.
- Xinyin Chen, X., Bian, Y., Xin, T, Wang, L., & Silbereisen, R. K. (2010). Perceived social change and childrearing attitudes in China. *European Psychologist*, 15, 260-270.
- Book Chapters**
- Pinquart, M. & Silbereisen, R. K. (2010). Demands of social change in Germany as reflected by self-referential temporal comparisons. In O. Kapella, C. Rille-Pfeiffer, M. Rupp, M. & N. F. Schneider (eds.), *Family diversity* (253-266). Opladen: Barbara Budrich Publishers.
- Pinquart, M., Stotzka, C., & Silbereisen, R. K. (2011). Ambivalenz in Entscheidungen ueber Elternschaft, Partnerschaft und Ehe. In S. Walper & E. V. Wendt (eds.), *Partnerschaften und die Beziehungen zu Eltern und Kindern. Befunde zur Beziehungs- und Familienentwicklung in Deutschland* (85-112). Wuerzburg: Ergon.
- Silbereisen, R. K., & Tomasik, M. J., (2011). Psychosocial functioning in the context of social, economic, and political change. In K. H. Rubin & X. Chen (E), *Socioemotional development in cultural context* (305-331). New York: Guilford Press.
- Tomasik, M. J., & Silbereisen, R. K. (2011). Adolescence and globalization. In B. B. Brown & M. J. Prinstein (Eds.), *Encyclopedia of adolescence*. Oxford, United Kingdom: Elsevier.
- Research Reports**
- Silbereisen, R.K. & Tomasik, M.J., Mapping demands of social change (LLAKES Research Paper No. 21). London: Institute of Education (2011) [Avaialble for download at <http://www.llakes.org/llakes-research-papers/>].
- Research Prize**
- Silbereisen, R. K. (2010). Franz-Emanuel-Weinert

Principal Investigators

Ulrich Trautwein



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

Over the last year, Prof. Trautwein has been mentoring Philip Parker, the PATHWAYS post-doctoral fellow based at the University of Tübingen. Several collaborative projects with PATHWAYS PIs and fellows were started or continued, including collaborations with the University of Helsinki, the Institute of Education London, the University of Jena, and the University of Michigan. Several papers are now in press or are under review by leading journals in the field. Trautwein's PATHWAYS related work primarily focuses educational transitions as well as the effects of different learning environments on achievement, aspirations, and choices.

The ongoing research programme has not only resulted in a number of publications over the last year but has also had direct policy implications and has been covered extensively in the German print media.

Policy Contributions

Prof. Trautwein has served from 2010 to 2011 in high-impact expert panel on social inequality in education and ways to overcome them. Furthermore, starting in 2011, he serves as a member of an expert group that reports to the Federal Ministry of Education and Research and the Standing Committee of the State Ministers for Education. Trautwein also gave a large number of presentations for politicians, school authorities, school headmasters, and teachers.

Media coverage

The high media interest in results from TOSCA project continued. Specifically, findings on students' characteristics who choose different types of tertiary education were featured in several articles, most prominently in the weekly *Die Zeit*. Moreover, an interview with Prof. Trautwein on reference group effects in schools was also printed in *Die Zeit*. In addition, Trautwein was quoted in several outlets with his research on secondary schools.

Selected Publications

Papers

- Baeriswyl, F., Wandeler, C. & Trautwein, U. (in press). „Auf einer anderen Schule oder bei einer anderen Lehrkraft hätte es für's Gymnasium gereicht“: Eine Untersuchung zur Bedeutung von Schulen und Lehrkräften für die Übertrittsempfehlung. *Zeitschrift für Pädagogische Psychologie*.
- Goetz, T., Nett, U., Martiny, S., Hall, N. C., Pekrun, R., Dettmers, S., & Trautwein, U. (in press). Students' emotions during homework: Structures, self-concept antecedents, and achievement outcomes. *Learning and Individual Differences*.
- Kramer, J., Nagy, G., Trautwein, U., Lüdtke, O., & Treptow, R. (in press). Die Klasse an die Universität, die Masse an die anderen Hochschulen? Wie sich Studierende unterschiedlicher Hochschultypen unterscheiden. *Zeitschrift für Erziehungswissenschaft*.
- Lüdtke, O., Roberts, B., Trautwein, U., & Nagy, G. (in press). A random walk down university avenue: Life paths, life events, and personality trait change at the transition to university. *Journal of Personality and Social Psychology*.

- Lüdtke, O., Marsh, H.W., Robitzsch, A., & Trautwein, U. (in press). A 2x2 taxonomy of multilevel latent contextual models: Accuracy-bias trade-offs in full and partial error-correction models. *Psychological Methods*.
- Nagengast, B., Marsh, H.W., Scalas, L.F., Xu, M., Hau, K.-T., & Trautwein, U. (in press). Who took the "X" out of expectancy-value theory? A psychological mystery, a substantive-methodological synergy, and a cross-national generalization. *Psychological Science*.
- Trautwein, U., Nagy, G. & Maaz, K. (in press). Soziale Disparitäten und die Öffnung des Sekundarschulsystems: Eine Studie zum Übergang von der Realschule in die gymnasiale Oberstufe. *Zeitschrift für Erziehungswissenschaft*.
- Dettmers, S., Trautwein, U., Lüdtke, O., Goetz, T., Frenzel, A. C., & Pekrun, R. (2011). Students' emotions during homework in mathematics: Testing a theoretical model of antecedents and achievement outcomes. *Contemporary Educational Psychology*, 36, 25-35.
- Wagner, W., Kramer, J., Trautwein, U., Lüdtke, O., Nagy, G., Jonkmann, K., Maaz, K., Meixner, S. & Schilling, J. (2011). Upper secondary education in academic school tracks and the transition from school to postsecondary education and the job market. *Zeitschrift für Erziehungswissenschaft*, 14 (Sonderheft 14), 233-249.
- Dettmers, S., Trautwein, U., Lüdtke, O., Kunter, M., & Baumert, J. (2010). Homework works if homework quality is high: using multilevel modeling to predict the development of achievement in mathematics. *Journal of Educational Psychology*, 102, 467-482.
- Marsh, H. W., Lüdtke, O., Muthén, B., Asparouhov, T., Morin, A. J. S., Trautwein, U., & Nagengast, B. (2010). A new look at the big five factor structure through exploratory structural equation modeling. *Psychological Assessment*, 22, 471-491.
- Nagy, G., Watt, H. M. G., Eccles, J. S., Trautwein, U. & Lüdtke, O. (2010). The development of students' mathematics self-concept in relation to gender: Different countries, different trajectories? *Journal of Research on Adolescence*, 20, 482-506.
- Nagy, G., Trautwein, U. & Lüdtke, O. (2010). The structure of vocational interests in Germany: Different methodologies, different conclusions. *Journal of Vocational Behavior*, 76, 153-169.

Post-doctoral Fellows

Angela Chow



I am a postdoctoral fellow based at the University of Helsinki, under the supervision of Prof. Katariina Salmela-Aro. In the summer of 2009, I joined PATHWAYS as an associate fellow. My research interest lies in the roles of motivation and education in shaping young people's development, as I believe that knowledge about both factors plays a crucial role in informing effective educational policies and strategies to foster individual development across the lifespan.

In the last two years, my research has been mainly focused on students' task value, that is, their perceived value on a specific subject or an activity. For example, in one study, Prof. Salmela-Aro and I examined how students prioritize the task values of different school subjects. These priority patterns were found to be predictive of educational choices.

In another study, I worked with Prof. Jacquelynne Eccles from the University of Michigan to investigate task value development among 765 Finnish adolescents across pre- and post-compulsory education. The work illustrated the impact of changing educational contexts on the longitudinal development of task values. In Finland, less academically capable students can choose to postpone the transition to post-compulsory education and spend an additional year in comprehensive school, where they learn in smaller classes and receive tailor-made support from teachers. We found increased task values for math and science among girls in this postponed transition track, suggesting that the provision of a suitable environment that matches the needs of girls can indeed increase the value they attach to these subjects. Our research thus has implications for educators and policy makers, for whom the question of how to foster motivation in math and science among girls has been long standing.

In my future studies, I will broaden my research scope: from focusing on motivation and behaviour in school to also including motivation and behaviour in the workplace; and to consider wider outcomes, such as career development and mental health. In October 2011, I will start working as a postdoctoral fellow at the University of Alberta, Canada. I will continue working closely with Prof. Katariina Salmela-Aro, other PATHWAYS PIs and fellows, and am keen to engage in international comparative studies on productive youth development in Finland, Canada and other countries.

Publications

Papers

- Chow, A., & Salmela-Aro, K. (2011). Task-values across subject domains: A gender comparison using a person-centred approach. *International Journal of Behavioral Development*, 35(3) 202-209.
- Chuy, M., Scardamalia, M., Bereiter, C., Prinsen, F. R., Resendes, M., Messina, R., Hunsburger, W., Teplovs, C., & Chow, A. (2010). Understanding the nature of science and scientific progress: A theory-building approach. *Canadian Journal of Learning and Technology*. 36(1).
- Chow, A., Eccles, J. S. & Salmela-Aro, K. (submitted). Task value profiles across subjects and aspirations to physical and IT-related science fields in the United States and Finland.
- Ranta, M., Chow, A., Salmela-Aro, K. (submitted). Subjective well-being trajectories and the financial situation during the transition to adulthood.
- Symonds, J. E., Chow, A., Dietrich, J., & Salmela-Aro, K. (submitted). Transition from compulsory schooling in Finland and England: An international comparison of effects on adolescent mental health.

Dissemination

- Ranta, M., Chow, A., Punamäki, R.-L., & Salmela-Aro, K. (October 2010). *A successful transition to adulthood: Adolescents' financial status and well-being trajectories*. Paper presented at the Life History Research Society 2010 Meeting, Montréal, Canada.
- Lonka, K., Chow, A., & Pyhältö, K. (June 2010). *The writing process questionnaire - Measuring PhD students' ideas about academic writing*. Paper presented at the Conference of EARLI's SIG Higher Education and SIG teacher and Teacher Education in Kirkkonummi, Finland, Helsinki, Finland.
- Chow, A., Dietrich, J., Symonds, J. E., & Salmela-Aro, K. (submitted). *Goal facilitation or goal conflict? Multiple goal trajectories of highly-educated women from emerging adulthood to young adulthood*. Paper to be presented at the Conference on Emerging Adulthood, Providence, Rhode Island, USA.
- Chow, A., Krahn, H. J., Galambos, N. L. (accepted). *Tracking work values during emerging adulthood: Does postsecondary education matter?* Paper to be presented at the Conference on Emerging Adulthood, Providence, Rhode Island, USA.

Papers presented at the PATHWAYS workshops

Chow, A., Eccles, J. S. & Salmela-Aro, K. (November 2010). *Intraindividual hierarchical patterns of task-values and aspirations towards hard sciences: Results from two samples*. Paper presented at the 4th Pathways meeting, Windsor, UK.

Chow, A., Dietrich, J., Symonds, J.E., & Salmela-Aro, K. (submitted). *Multiple goal trajectories of highly-educated women from emerging adulthood to young adulthood: A 16-year Study*. Paper presented at the 5th Pathways meeting, University of Michigan, USA

Awards

I have been selected as a recipient of the Banting Fellowships, awarded for two years by the Social Sciences and Humanities Research Council of the Canadian government. This is a very competitive international fellowship programme, with only 23 awards given to the fields of social sciences and humanities. The title of my proposed project is "Gendered Pathways from Youth to Mid-Life in Canada". In addition, I received a grant from the University of Alberta.

My experience with PATHWAYS was definitely one of the key factors in receiving the Canadian award. The PATHWAYS programme is really wonderful for the early career scholars just like me. I hope I can continue working closely with all the superb mentors and fellows within the PATHWAYS network.

Post-doctoral Fellows

Julia Dietrich



Being trained as a developmental psychologist, my research is guided by the question: How do individuals deal with the developmental tasks of adolescence and young adulthood, particularly with those pertaining to education and career choice? I approach this question by examining how individuals cope with the various challenges they face, for example, at major educational and career transitions. My work focuses on the mechanisms through which interactions with people in the interpersonal contexts enhance or impede young people's positive development in the educational and career domains. Furthermore, I am particularly interested in quantitative research methods and gained experience gathering and analyzing large scale panel and micro-developmental diary data.

Current activities

In November 2010 I had the opportunity to attend the PATHWAYS meeting in Cumberland Lodge, where I became acquainted with the other Fellows and their current projects. I started my work within the PATHWAYS programme in January 2011. Since January, I have written one empirical (Dietrich & Salmela-Aro, under review) and one review paper (Dietrich, Parker, & Salmela-Aro, under review) as first author. Both of these papers address adolescents' coping with the post-school transition. Additionally I have co-authored two papers with Jennifer Symonds.

The collaboration on the review paper was initiated through a visit at the University of Tübingen, where Katariina Salmela-Aro, Ulrich Trautwein, Philip Parker and I explored possibilities of working together. I presented the first ideas for the collaborative review paper at the "Happy School Workshop" in Helsinki, held by Prof. Salmela-Aro in April, and received valuable feedback. Following that, the paper progressed during the PATHWAYS meeting in Rome, where we discussed it with other PIs and Fellows.

Recently, based on the FinEdu data set, I have started to work on an empirical paper on the development of career-related goals (Dietrich & Salmela-Aro, 2011, August), which I presented at the European Conference on Developmental Psychology in Bergen, Norway.

Publications

Papers

Related to PATHWAYS

- Dietrich, J., Parker, P., Salmela-Aro, K. (under review). Phase-adequate engagement at the post-school transition.
- Dietrich, J. & Salmela-Aro, K. (under review). Parental involvement and adolescents' career goal pursuit during the post-school transition.
- Symonds, J., Chow, A., Dietrich, J., & Salmela-Aro, K. (under review). Effects of transition from compulsory schooling in Finland and England on adolescent mental health.
- Symonds, J., Dietrich, J., Chow, A., & Salmela-Aro, K. (under review). Adolescent mental health development across two age-graded transitions in Finland

Other Publications

- Dietrich, J., Jokisaari, M., & Nurmi, J.-E. (in press). Work-related goal appraisals and stress during the transition from education to work. *Journal of Vocational Behavior*.
- Dietrich, J. & Kracke, B. (2011). Brief report: Cross-informant ratings of self- and other-regulation at career transitions in adolescence. *Journal of Adolescence*, 34, 1097-1101.
- Dietrich, J., Kracke, B., & Nurmi, J.-E. (2011). Parents' role in adolescents' decision on a college major: A weekly diary study. *Journal of Vocational Behavior*, 79, 134-144.
- Dietrich, J., Lichtwarck-Aschoff, A., & Kracke, B. (under review). Deciding on a college major: Commitment trajectories, career exploration, and academic well-being.

Dissemination

- Dietrich, J. & Salmela-Aro, K. (2011, August). Pursuit of career goals in secondary school and beyond: The role of school engagement and burnout. Paper presented at the European Conference for Developmental Psychology, Bergen, Norway.

Awards, Prizes, Funding

I received a grant from the Developmental Section of the German Psychological Society for organizing a methodological workshop, entitled "Innovative methods for the analysis of change and development", to be held in September 2011. Furthermore, I received the Margret and Paul Baltes Award 2011 of the Developmental Section of the German Psychological Society for my dissertation, entitled "Adolescents' and parents' developmental regulation during the transition from school to higher education".

Post-doctoral Fellows

Kathryn Duckworth



Fellowship experience

I am a Post-Doctoral Research Fellow based at the Institute of Education, University of London working with Professor Ingrid Schoon. I began my PATHWAYS Fellowship in April 2011 but have been an Associate Fellow of the programme since 2009 whilst working in the Department for Education funded Centre for the Analysis of Youth Transitions where I was involved in project exploring issues such as youth crime, young people's labour market transitions and vocational training. Now as a PATHWAYS Fellow, the overarching theme of my research can be broadly described as examining the educational and occupational choices made by young people during the transition to adulthood and across the life span.

My interests lie in exploring the different types of transitions made by individuals as they move out of compulsory schooling, and, taking a longitudinal perspective, investigating the precursors, consequences and the contextual constraints that may influence such development. I am principally concerned with understanding the psychological and social processes associated with educational and occupational planning and implementation. As such my research is guided by a developmental-contextual approach to career development and draws strongly on ecological models of human development which emphasize the role of multiple interacting influences, the developmental integration of earlier levels of adjustment into later ones, and the impact of socio-historical context.

My post-doctoral work extends the work of my PhD thesis which examined key features of academic development during middle childhood, focusing on continuities and discontinuities and their implications for later outcomes, by exploring in more detail development during adolescence and the transition to adulthood. I am particularly interested in variation in amongst certain sub-groups of the population, most notably those who follow alternative or unexpected pathways. This is reflected in my current research priorities which seek to explore (i) the development of entrepreneurship; and (ii) the transitions made (and outcomes realised) by those who opt out of the traditional, post-16 academic route. My interest in these groups is further influenced by the current set of constrained economic and labour market circumstances facing today's cohort of young.

Current activities

My first few months in the PATHWAYS programme have been busy but very productive. I have submitted the first in a series of papers I aim to produce during my fellowship in which Prof. Ingrid Schoon and I examine the early socialisation influences shaping the assumption of entrepreneurship in adulthood. Following the lives of young people from birth to age 34, we examined the role of socio-economic background, parental models, as well as academic ability, social skills, self concepts, and entrepreneurial intention expressed during adolescence as predictors of self employment by age 34. Our analysis identified gender specific pathways in the transmission of economic resources, values and behaviours associated with entrepreneurship, and sets the scene for subsequent work to examine the joint influences of both social structure and individual agency in shaping occupational choice and implementation. We are also investigating precursors of different kinds of entrepreneurial activities, including various definitions of success, and are developing a comparative paper with our German PATHWAYS colleagues Martin Obschonka and Rainer K. Silbereisen exploring productive youth development across the two countries focussing on the particular importance of early social skills and peer relations for entrepreneurship in adulthood.

I am also involved in several other comparative projects. For example, Ingrid and I are working with Jennifer Symonds and Professor Katariina Salmela-Aro at the University of Helsinki investigating social and gender inequalities in achievement, educational track choice and occupational prestige in adulthood in the 1970 British Cohort Study and the 1966 Northern Finland Birth Cohort. I also continue to retain my Research Associate status with the Center for the Analysis of Pathways from Childhood to Adulthood (CAPCA), based at the University of Michigan, and have recently submitted a chapter on inter-generational mobility and adult labour market success using data from Finland, Sweden, the US and the UK and a paper on the importance of fractions for subsequent mathematics development.

I also retain close networks with various government departments, providing quick-response consultancy when requested and feeding into a number of policy reviews to ensure that my work is relevant to current debates and accessible to policy makers. Following a secondment in 2009/2010 to the Prime Minister's Strategy Unit where I led the evidence-base for a project on adolescence and young development, in the last 12 months I have worked at HM Treasury assessing the impact of spending cuts in the youth services and advised the Department for Education's review of outcomes in the youth sector. Currently I am working with Labour's Business and Enterprise Policy Review Team and the Small Business Taskforce on issues around entrepreneurship and social mobility, disseminating key findings from ongoing projects across the PATHWAYS programme and developing new lines of enquiry guided by the direction of future economic policies.

Publications

Papers

- Duckworth, K. & Schoon, I. (2010). Progress and attainment during primary school: The roles of literacy, numeracy and self-regulation. *Longitudinal and Life Course Studies*, 1(3), 223 - 240.
- Sabates, R. and Duckworth, K. (2010). Maternal schooling and children's relative inequalities in developmental outcomes: Evidence from the 1947 School Leaving Age Reform in Britain. *Oxford Review of Education*, 36(4), 445-461.
- Sabates, R., Duckworth, K. and Feinstein, L. (2011). The impact of mothers' learning on their children academic performance at Key Stage 3: Evidence from ALSPAC. *Oxford Review of Education*, 37(4), 485-504.
- Schoon, I. & Duckworth, K. (2010). Leaving school early – and making it! Evidence from two British Birth Cohorts. *European Psychologist*, 15(4), 283-292.
- Schoon, I., Hope, S., Ross, A. & Duckworth, K. (2010). Family hardship and children's development: the early years. *Longitudinal and Life Course Studies*, 1(3), 209-222.
- Siegler, R. S., Duncan, G.J., Davis-Kean, P.E., Duckworth, K. et al. (submitted). Precursors of High School Mathematics Achievement. *Psychological Science*.
- Schoon, I & Duckworth, K. (revise and resubmit). Who becomes an entrepreneur? Early life experiences as predictors of entrepreneurship. *Developmental Psychology*.
- Duckworth, K. & Vignoles, A. (in preparation). Leaky taps in post-compulsory education: Patterns of participation and outcomes for late dropouts.

- Duckworth, K., Schoon, I. & Vignoles, A. (in preparation). Beating the Odds: The impact of the economic recession on young people in the UK.
- Duckworth, K., Obschonka, M., Schoon, I. & Silbereisen, R. (in preparation). Productive youth development and entrepreneurship in adulthood: Early entrepreneurial competence and interests in adolescence
- Duncan, G.J., Duckworth, K. et al. (in preparation). The Role of Child Skills and Behaviors in the Intergenerational Transmission of Inequality: A Cross-National Study.
- Schoon, I & Duckworth, K. (in preparation). Who becomes a successful entrepreneur? Early life experiences as predictors of entrepreneurship. *Journal of Vocational Behavior*
- Schoon, I & Duckworth, K. (in preparation). A transgenerational model of education participation.
- Symonds, J., Duckworth, K., Järvelin, M., Schoon, I. & Salmela-Aro, K. (in preparation). Adolescent predictors of occupational prestige development in adulthood.

Book chapters

- Duncan, G.J., Bergman, L., Duckworth, K., Kokko, K., Lyyra, A-L., Metzger, M., Pulkkinen, L. & Simonton, S. (forthcoming). The Role of Child Skills and Behaviors in the Intergenerational Transmission of Inequality: A Cross-National Study. In M. Jonsson, T. Smeeding & J. Ermisch (Eds.), *Cross-national research on the intergenerational transmission of advantage*. Russell Sage Foundation: New York.

Reports

- Crawford, C., Duckworth, K., Vignoles, A. & Wyness, G. (2011). *Young people's education and labour market choices aged 16 to 19*. Centre for Analysis of Youth Transitions: London.
- Ross, A., Duckworth, K., Smith, D.J., Wyness, G. & Schoon, I. (2011). *Prevention and Reduction: A review of strategies for intervening early to prevent or reduce youth crime and anti-social behaviour*. Centre for Analysis of Youth Transitions: London.

Dissemination

- Duckworth, K. & Schoon, I. (April, 2011). Leaving school early – and making it! Evidence from two British Birth Cohorts. Society for Research on Child Development: Biennial Meeting · Montreal, Canada. March 31 - April 2, 2011.
- Duckworth, K. & Schoon, I. (March, 2011). Who becomes an entrepreneur? Early life experiences as predictors of entrepreneurship. Society for Research on Child Development: Biennial Meeting · Montreal, Canada. March 31 - April 2, 2011.
- Duckworth, K. & Schoon, I. (October, 2010). Who becomes an entrepreneur? Early life experiences as predictors of entrepreneurship. Anglo-Finnish Conference on Young People's Transition to the Work Place. Finnish Institute, London. 25 – 26 October, 2010.
- Duckworth, K. (July, 2010). An examination of gender differences in early academic attainment: A snapshot from the UK over the last forty years. PATHWAYS to Adulthood International Conference: Institute of Education, London. 12 – 13 July, 2010. Dissemination
- Duckworth, K. (July, 2010). An examination of gender differences in early academic attainment: A snapshot from the UK over the last forty years. PATHWAYS to Adulthood International Conference: Institute of Education, London. 12 – 13 July, 2010.
- Duckworth, K. (May, 2010). The role of childhood skills and behaviours in intergenerational mobility. Russell Sage Foundation Conference on Cross-national research on the intergenerational transmission of advantage: London, 11 – 12 May 2010.
- Schoon, I. and Duckworth, K. (September, 2009). Interstudy potential in life course research. Longview Conference: Cambridge College, Cambridge. September 21-22, 2009.

Post-doctoral Fellows

John Jerrim



Having graduated with a first class degree in economics from the University of Southampton in 2005, I went on to obtain an MSc and PhD in Social Statistics from the same institution in 2007 and 2010. My PhD thesis was on the educational and labour market expectations on adolescents and young adults. Over the past year I have been working at the Institute of Education, University of London as a Research Officer and have joined the PATHWAYS network as an associate Fellow. In November 2011 will start a new role as an ESRC post-doctoral fellow and continue my collaboration with the PATHWAYS programme. My research interests include intergenerational inequalities, cross-national comparisons and the opportunities afforded to disadvantaged children. The work I have produced has been covered extensively in the media, including The Times, Guardian, Economist, Financial Times and BBC website.

Current activities

I gained funding for two projects related to PATHWAYS activities (Sutton Trust grant and ESRC post-doctoral fellowship). In addition to this I organised and conducted a workshop on how to use the PISA data at the PATHWAYS workshop in Rome. I have produced two working papers on 15 year olds expectations and achievement, that have since been submitted to leading academic journals (one in economics the other in sociology). A paper on young adults wage expectations has been accepted by Fiscal Studies, and a chapter on cross-national differences in educational attainment is to be published in a book by the Russell Sage Foundation. I have begun work with Philip Parker (PATHWAYS fellow) and Ingrid School (PI) looking at expectations of obtaining only low level educational qualifications across countries.

Media Coverage

- The Guardian, "Our early-years research does not contradict the government", 28th April 2011, <http://www.guardian.co.uk/commentisfree/2011/apr/28/social-mobility-early-years>
- The Guardian, "Feinstein's Theory", 14th April 2011, <http://www.guardian.co.uk/politics/2011/apr/14/david-davis-challenge-tory-policies>
- The Guardian, "Poor children's life chances", 14th June 2011, <http://www.guardian.co.uk/education/2011/jun/14/poor-children-research-innate-intelligence>

Research Funding

- Sutton Trust, The literacy skills of disadvantaged children in England, Principle Investigator, January 2010 – June 2010
- ESRC post-doctoral fellowship, Principle Investigator, November 2011 – November 2012

Publications

Papers

- Jerrim, J. (forthcoming) "The wage expectations of UK students: are they realistic?", *Fiscal Studies*

Book Chapters

- Jerrim, J. and Micklewright, J. (forthcoming) "Children's cognitive ability and parents' education: distinguishing the impact of mothers and fathers" forthcoming in *Persistence, Privilege and Parenting: The Comparative Study of Intergenerational Mobility* Edited by T Smeeding, R. Erikson and M Jantti, New York: Russell Sage Foundation

Working Papers

- Jerrim, J. and Vignoles, A. (2011) "The use (and misuse) of statistics in understanding social mobility: regression to the mean and the cognitive development of high ability children from disadvantaged homes", DoQSS working paper 11/01 (URL: <http://ideas.repec.org/p/qss/dqsswp/1101.html>)
- Jerrim, J. (2011) "Socio-economic differences in children's educational expectations: Are the US and UK really so different to other industrialized nations?", DoQSS working paper 11/04v <http://repec.ioe.ac.uk/repec/pdf/qsswp1104.pdf>
- Jerrim, J. (forthcoming) "The language achievement of disadvantaged children in England: Are they stuck to the floor or unable to reach the ceiling?"

Dissemination

Over the past year I have produced a number of papers that have had support from the PATHWAYS group. This includes completing a report for the Sutton Trust on cross-national differences in educational achievement, which I have recently submitted to Economics of Education Review. I have also completed a paper on the educational expectations of disadvantaged young adults in an international perspective. This is now available online as a working paper (<http://repec.ioe.ac.uk/repec/pdf/qsswp1104.pdf>) and has been submitted for review to Sociology of Education. In related work, I have investigated the wage expectations of university students in England, which has recently been accepted for publication for Fiscal Studies. I have also presented my work to various audiences, including to the Department of Quantitative Social Sciences at the Institute of Education and at international conferences in Rome and Windsor (UK). My expertise on international comparisons has also been drawn upon by the UK's department of education.

Post-doctoral Fellows

Martin Obschonka



I am a postdoctoral researcher at the Department of Developmental Psychology and the Center for Applied Developmental Science, Friedrich-Schiller-University of Jena (Germany), and PATHWAYS fellow. I graduated from the University of Hamburg (Germany) in 2006 (Diploma in Psychology) and received my PhD in Psychology from the Friedrich-Schiller-University of Jena in 2011 (Supervisor: Rainer K. Silbereisen, Topic: The entrepreneurial process and the life span perspective of human development; graded summa cum laude). My PhD work was part of an interdisciplinary research project (psychology and economics) "Human Behaviour in Social and Economic Change", conducted at the Jena Graduate School. The Jena Graduate School is an interdisciplinary doctoral school initiated by the College of Social and Behavioral Sciences, the College of Economics and Business Administration (both University of Jena) and the Max Planck Institute of Economics, Jena. Prior to my academic education, I completed a vocational training in wholesale and export trade (certified businessman).

My research interests concern psychological phenomena related to the interplay between human agency and contemporary social and economic change, with a special focus on entrepreneurship, self-determination, and adaptive human development over the life span. Drawing from interdisciplinary approaches, my research work targets both the individual (e.g. personality and competence development across the life span) and context levels (micro-contexts such as the work context as well as regional and country-level factors and cross-national comparison). I collaborated with economists, sociologists, and geographers, and published research articles on entrepreneurial development over the life span, entrepreneurial success, academic and nascent entrepreneurship, effects of public business advice, and individual-level effects of social and economic change in different countries. My research work was presented at leading psychology and entrepreneurship conferences and appeared in journals like *Journal of Vocational Behavior*, *European Psychologist*, and *The Career Development Quarterly*. Recently, Rainer K. Silbereisen and I successfully applied for editing a Special Issue on "Entrepreneurial development: Person and context" (*International Journal of Developmental Science*). My research work was funded by both national and international institutions (e.g., Federal German State of Thuringia, Jacobs Foundation). Currently, I am working on cross-national studies on entrepreneurial development over the life span (e.g., utilizing longitudinal data from Germany, United Kingdom, and Finland), on the interplay between human agency in the work context and social and economic change in Germany and Poland, and geographical factors of entrepreneurship in the United States and Germany.

Besides my research activities, my academic work includes teaching (undergraduate and graduate level), review activities (e.g., *Journal of Economic Psychology*, *Entrepreneurship: Theory and Practice*, Dutch National Science Foundation), workshops (e.g., European Science Foundation, Summer school: "Analysis methods for cross-national comparisons", Leuven, Belgium, August 28 – September 4), and activities for international organizations (e.g., International Union of Psychological Science, European Society for Developmental Psychology). Awards that I received include an invitation into the knowledge pool at the 40th St. Gallen Symposium "Entrepreneurs: Agents of change" (05/2010, University of St. Gallen, Switzerland), and an Einstein Scholarship for Excellent Young Scientists (Falling Walls Conference Berlin, 11/2010).

Current activities

As a result of the PATHWAYS workshop in Rome in May 2011, I started to collaborate with Kathryn Duckworth and Ingrid Schoon (British Cohort Studies) and with Katariina Salmela-Aro (FinEdu-Studies) in order to study entrepreneurial development in a cross-national manner. I further worked with Rainer K. Silbereisen on research papers about new demands concerning careers and jobs in times of social and economic change, with a special focus on young adulthood, the interplay between negative and positive everyday manifestations of the macro-level change, the role of self-employment, and cross-national comparison between Germany and Poland. Furthermore, Rainer K. Silbereisen and I successfully applied to edit a Special Issue on "Entrepreneurial development: Person and context" (International Journal of Developmental Science) and we invited several PATHWAYS members to submit abstracts. Recently, I presented key results of my PhD thesis at the 12th European Congress of Psychology (ECP), 07/2011, Istanbul, Turkey (Obschonka, M., Silbereisen, R. K., & Schmitt-Rodermund, E. "Entrepreneurialism as Key Competence for Tomorrow's World of Work: Main Results from an Interdisciplinary PhD Thesis on Entrepreneurial Development"). Beside teaching (Seminar Summer Term 2011: "Peer relationships across the life span"), my work included activities for the International Union of Psychological Science (Invited participant of the "IUPsyS Capacity-building Strategic Planning Meeting", Würzburg, Germany, May 1-3, 2011; Organization of the 3rd IUPsyS Caucasus workshop on Bereavement "Advanced In-field Training and Curriculum Development", Tbilisi, Georgia, October 2-8, 2011) as well as review activities for international journals (Entrepreneurship: Theory and Practice; Journal of Economic Psychology) and for the Dutch National Science Foundation. Finally, I took part in a methodological workshop on multi-level modeling and cross-national comparisons (European Science Foundation, Quantitative Methods in the Social Sciences 2 QMSS 2, Summer school: "Analysis methods for cross-national comparisons", Leuven, Belgium, August 28 – September 4).

Media Coverage

Positive comment on my PhD work and my PATHWAYS fellowship in the German Newspaper "Thüringer Landeszeitung" 06/2011 (<http://www.tlz.de/startseite/detail/-/specific/Studie-der-Uni-Jena-zum-Erfindergeist-auf-der-Schulbank-1837693927>)

Publications

Papers

- Obschonka, M., Silbereisen, R. K., Schmitt-Rodermund, E., & Stuetzer, M. (2011). Nascent entrepreneurship and the developing individual: Early entrepreneurial competence in adolescence and venture creation success during the career. *Journal of Vocational Behavior*, 79, 121-133.
- Kösters, S. & Obschonka, M. (2011). Public business advice in the founding process: An empirical evaluation of subjective and economic effects. *Environment and Planning C: Government and Policy*, 29, 577-604.
- Obschonka, M., Silbereisen, R. K., & Wasilewski, J. (in press). Constellations of new demands concerning careers and jobs: Results from a two-country study on social and economic change. *Journal of Vocational Behavior*.
- Obschonka, M., Silbereisen R. K., & Schmitt-Rodermund, E. (in press). Entrepreneurial success as developmental outcome: A path model from a life-span perspective of human development. *European Psychologist*.
- Obschonka, M., Silbereisen, R. K., & Schmitt-Rodermund, E. (in press). Explaining entrepreneurial behavior: Dispositional personality traits, growth of personal entrepreneurial resources, and business idea generation. *The Career Development Quarterly*.
- Obschonka, M., Goethner, M., Silbereisen, R. K., & Cantner, U. (in press). Social identity and the transition to entrepreneurship: The role of group identification with workplace peers. *Journal of Vocational Behavior*.
- Goethner, M., Obschonka, M., Silbereisen, R. K., & Cantner, U. (revise and resubmit). Foundations of academic entrepreneurship: A path model for the prediction of scientists' academic entrepreneurial intentions
- Obschonka, M., Schmitt-Rodermund, E., Silbereisen, R. K., Gosling, S. D., Potter, J. (submitted). Towards a geography of entrepreneurial personality.
- Obschonka, M. & Silbereisen, R. K. (revise and resubmit). The positive side of the change: The role of gains in self-determination in the cascading down of social and economic change towards the working individual.

Stuetzer, M., Obschonka, M., Brixy, U., Sternberg, R., & Cantner, U. (revise and resubmit). Examining the black box between stimulating regions and individual entrepreneurship.

Stuetzer, M., Obschonka, M., Schmitt-Rodermund, E. (revise and resubmit). Balanced skills among nascent entrepreneurs.

Dissemination

Obschonka, M., Silbereisen, R. K., & Schmitt-Rodermund, E. (July 2011), Entrepreneurialism as Key Competence for Tomorrow's World of Work: Main Results from an Interdisciplinary PhD Thesis on Entrepreneurial Development. 12th European Congress of Psychology (ECP), Istanbul, Turkey.

Goethner, M., Obschonka, M., Silbereisen, R. K., & Canter, U. (April 2011) Foundations of academic entrepreneurship: *A path model for the prediction of scientists' academic entrepreneurial intentions*. DIME-Conference Dynamics of Institutions and Markets in Europe, Maastricht, Holland.

Stuetzer, M., Obschonka, M., Brixy, U., Sternberg, R., & Cantner, U. (October 2010) *Examining the black box between stimulating regions and individual entrepreneurship*. 4th Global Entrepreneurship Monitor Research Conference. Global entrepreneurship, innovation, and economic development, Imperial College London, UK:

Awards

Scholarship, Einstein Young Scholars Programme, Falling Walls Conference Berlin, 11/2010

Positive comment on my PhD work in "Academic of Management Perspectives" [Wyld, D. C. & Maurin, R. (2011). Nature plus nurture: Do teenage activities predict entrepreneurial success? *Academy of Management Perspectives*, 25(1), 100-101].

Post-doctoral Fellows

Philip Parker



I am currently a Jacob's Foundation post doctoral research fellow at the Center for Educational Science and Psychology at the University of Tübingen, Germany. Later this year I will take up a research lectureship position and the Centre for Educational Research at the University of Western Sydney, Australia. During my time as a PATHWAYS fellow my research has focused on the relationship between structure and agency during important life transitions. In particular, my underlying focus has been on the structural conditions and personal attributes that determine the success of young people's transition from high-school. In particular, I am interested in the role of psychological factors such as self-concept, motivation, and well-being and their relationship with gender, background variables (e.g. socio-economic status) and school contexts (e.g. ability stratification) in predicting education destinations. Topics of interest include university entry and major selection, gap year participation, and transitions success. I have conducted this research using large longitudinal databases from the US, UK, Germany, and Finland; all of which are focused on youth in transition. I approach these topics using advanced statistics including propensity score matching, and multi-level and structural equation modeling

Current activities

This year began with the Society for Research in Child Development conference in Montreal. At the conference I chaired and presented at a symposium on academic career choice and the role of gender, academic attainment, and ability concepts. The symposium consisted of PATHWAYS members where we presented our findings from a multi-national perspective. It also led to a multi-nation paper exploring these issue with fellow symposium participants. The results of this collaboration are currently under review in the journal of *Developmental Psychology*. In addition, Prof. Salmela-Aro and I had our article on the development of burnout during high-school accepted for publication in the journal: *Learning and Individual Differences*. During 2011 I have also been working on a number of PATHWAYS projects, closely collaborating with other fellows and mentors. This has culminated in a seven articles currently under review, many of which are in their second round of review. These projects cover a number of topics relevant to young people's pathway to adulthood including the role of personality traits in maintaining relationships during the post-school transition, a critical look at the benefits of a gap-year in the Finnish context, and the role of background, ability and personality variables in adequate engagement with post-school career choices.

Publications

Papers

- Parker, P.D. & Salmela-Aro, K. (2011). Developmental Processes in School Burnout: A Comparison of Major Developmental Models. *Learning and Individual Differences* 21(2), 244-248.
- Dietrich, J., Parker, P.D., & Salmela-Aro, K. (submitted), Phase-Adequate Engagement at the Post-School Transition. *Developmental Psychology*.
- Litalien, D., Lüdtke, O., Parker, P.D., & Trautwein, U. (submitted), Goals regulation predicts subjective well-being in post-school transition: A two-year longitudinal study. *Motivation and Emotion*.
- Parker, P.D., Lüdtke, O., Trautwein, U. & Roberts, B.W. (submitted), Everything will be Different after School – or Won't It? Personality and Relationship Quality with Friends, Parents, and Siblings before and after the Transition to University or Work. *Journal of Personality*.
- Parker, P.D. Marsh, H.W., Lüdtke, O., & Trautwein, U. (submitted), Big-fish-little-pond (BFLP) Compensatory Effect: Theoretical and Empirical Integration of the BFLP and Internal/External Frame of Reference Models. *Learning and Instruction*.
- Parker, P.D., Martin, A.J., Colmar, S., & Liem, G.A. (submitted), Teachers' Workplace Well-being: Exploring a Process Model of Goal Orientation, Coping Behavior, Engagement, and Burnout. *Teacher and Teaching Education*.
- Parker, P.D., Schoon, I., Tsai, Y., Nagy, G., Trautwein, U., & Eccles, J. (submitted), Achievement, Agency, Gender, and Socioeconomic Background as Predictors of Post-school Choices: A Multi-context Study. *Developmental Psychology*.
- Parker, P.D., Thoemmes, F., & Salmela-Aro, K. (submitted), Time off From Your Troubles: Educational Moratorium Effects on Subjective Well-being and Goal Pursuit. *Learning and Instruction*.

Book Chapters

- Parker, P.D., Nagy, P.D., Trautwein, U., & Lüdtke, O. (in press) The Internal/External frame of Reference as Predictors of Career Aspirations and University Majors. In J. Eccles & I. Schoon (Eds.) *Gender differences in aspirations and attainment*.

Dissemination

- Parker, P.D. (September, 2010). *Predicting Career Aspirations and University Majors from Academic Ability and Self-concept: A longitudinal Application of the Internal/External Frame of Reference Model*. Society for Longitudinal and Life Course Studies International Conference Clare College, Cambridge, England: 22-24 September 2010.
- Parker, P.D. (March, 2011). Chair: *A Multi-Nation Study of Career Aspirations and the Internal/External Frame of Reference*. Society for Research in Child Development Conference, Montreal, Canada: 31st March 2011.
- Parker, P.D. (March, 2011). *Math and English Achievement and Self-Concept as Predictors of University Major and Career Aspirations in Germany*. Society for Research in Child Development Conference, Montreal, Canada: 31st March 2011.

Post-doctoral Fellows

Lara Perez-Felkner



I am a postdoctoral fellow at NORC at the University of Chicago and a PATHWAYS Associate Fellow. My research examines the social context of schools in relation to adolescents' college and career outcomes, with a particular focus on the mechanisms underlying racial-ethnic and gender disparities in postsecondary educational attainment and entry to careers in STEM fields. My current work primarily investigates adolescents' beliefs about their ability (especially their mathematics ability), how they think their teachers, peers, and family members regard their ability and potential, and school characteristics that might positively or negatively influence these beliefs and perceptions. I received my Ph.D. from the University of Chicago in Human Development. My dissertation was a mixed-methods study of the postsecondary pathways of high-aspiring Latino and ethnic minority youth in Chicago. I received a Spencer Foundation Dissertation Fellowship and currently hold an AERA Research Grant to examine my dissertation research findings using nationally representative longitudinal data. I received a B.A. from Wesleyan University.

Current activities

As a new PATHWAYS fellow my work was presented at the workshop in Rome in May 2011 by Dr. Schneider. Our work was also presented in July 2011 at the European Congress in Psychology meeting in Istanbul at the PATHWAYS symposium. This paper was entitled, "Gender Differences in Motivational and Cognitive Abilities: The Role of Engagement in Transitioning to STEM Careers." I am looking forward to attending the PATHWAYS workshop in Michigan this October and future programme activities.

Publications

Papers

- Perez-Felkner, L., Grogan, E., McDonald, S., and Schneider, B. (submitted) "Female and Male Adolescents' Subjective Orientations in Mathematics and Their Influence on Postsecondary Majors.", *Developmental Psychology*.
- Perez-Felkner, L. (submitted) "Tempering Stereotype Threat: Aspirations toward Higher Education among Latino Leadership Students." *Race, Ethnicity, and Education*.
- Perez-Felkner, L. (under review) "How Youth Experience Social Support: Building Underrepresented Adolescents' Resilience for the Transition to College."
- Perez-Felkner, L., Nakamura, J., and Schneider, B. (under review) "Conceptualizing Gender Differences in Math Engagement in Relation to STEM Careers." *Special issue of European Psychologist*

Book Chapters

- Perez-Felkner, L., McDonald, S. and Schneider, B. (in press). "What Happens to High-Achieving Females after High School? Gender and Persistence on the Postsecondary STEM Pipeline" in Schoon, I. and Eccles, J. (Eds.), *Gender Differences in Aspirations and Attainment*. Cambridge University Press.
- Perez-Felkner, L., Hedberg, E.C., and Schneider, B. (in press). "The Changing Landscape for Educational Opportunity: Enhancing the Public Option for Black Youth" in Slaughter-Defoe, D., Stevenson, H., Arrington, E., and Johnson, D. (Eds.), *Black Educational Choice Assessing the Private and Public Alternatives to Traditional K-12 Public Schools*. Praeger Press. November, 2011.

Dissemination

- Perez-Felkner, L., Hedberg, E.C., and Schneider, B. (2011) "Has the Expansion of Public School Choice Enhanced the Preparedness of Black Youth for STEM Careers?" American Educational Research Association Annual Meeting, New Orleans, LA.
- Perez-Felkner, L. (2011) "Resilience in Pathways to Four-Year College Degrees: Perceived Regard and School Reform." American Educational Research Association Annual Meeting, New Orleans, LA.
- Perez-Felkner, L., Grogan, E., McDonald, S. and Schneider, B. (2011) "Gendered Differences in Aligned Ambitions: High School Experiences and Pursuit of Postsecondary Opportunities in Science, Technology, Engineering, and Mathematics (STEM) Majors." American Educational Research Association Annual Meeting, New Orleans, LA.
- Perez-Felkner, L., Schneider, B., and McDonald, S. (2011) "Gender Differences in Motivational and Cognitive Abilities: The Role of Engagement in Transitioning to STEM Careers." The 12th European Congress of Psychology. Istanbul, Turkey.
- Perez-Felkner, L., McDonald, S. and Schneider, B. (2011) "What Happens to High-Achieving Females after High School? Gender and Persistence on the Postsecondary STEM Pipeline." American Sociological Association Annual Meeting, Las Vegas, NV.
- Perez-Felkner, L., Hedberg, E.C., and Schneider, B. (2011) "The Changing Landscape for Educational Opportunity: Enhancing the Public Option for Black Youth." American Sociological Association Annual Meeting, Las Vegas, NV.

- Perez-Felkner, L., Hedberg, E.C., and Schneider, B. (2011) "The Changing Landscape for Educational Opportunity: Enhancing the Public Option for Black Youth." Midwest Sociological Society Meeting, St. Louis, MO. March.
- Perez-Felkner, L., McDonald, S. and Schneider, B. (2011) "What Happens to High-Achieving Females after High School? Gender and Persistence on the Postsecondary STEM Pipeline." Demography Workshop, Population Research Centers, NORC at The University of Chicago. Chicago, IL. February.
- Perez-Felkner, L. (2010) "The Role of Perceived Regard: Students' Transitions to College in the Context of Public School Reform." American Sociological Association Annual Meeting, Atlanta, GA.

Awards

- Fall 2010 Research Grant, American Educational Research Association, Grants Board. "The Role of Perceived Regard on the College Persistence of Underrepresented Minorities."

Post-doctoral Fellows

Jennifer Symonds



When adolescents transition between and out of schools they experience changes in their social and physical environments. My research focuses on the development of the psychological self in relation to these changes, in a bid to understand how school structures can influence wellbeing, mental health and engagement throughout the lifespan. I research this area using statistical and ethnographic techniques.

To date I have held research fellowships at the University of Helsinki, Finland (as a PATHWAYS postdoctoral fellow) and the University of Bristol, UK; researched freelance at the Nuffield Foundation, UK; led a national project for the Paul Hamlyn Foundation, UK; and researched, mentored and taught at the University of Cambridge, UK, where I obtained my PhD in adolescent development and education.

Current activities

My research as a PATHWAYS postdoctoral fellow involves statistical comparison of Finnish and English adolescents at two age-graded transitions in adolescence.

The first transition at age 15/16 years is the move from comprehensive school to either vocational or academic schooling in Finland and to sixth form or further education, employment or training in England. With Angela Chow, Julia Dietrich and Katarina Salmela-Aro I have tracked adolescents' complete mental health (hedonia, eudaimonia and mental illness) across this transition in the FinEdu study and Longitudinal Study of Young People in England (both 2004 to present). We observed in both samples that adolescents transitioning to more vocational routes (including vocational education, training and full-time employment) experienced greater increases in mental health compared to those remaining on academic pathways.

Our second paper examines the development of Finnish adolescents' complete mental health across a longer time span. Here we use a four dimensional model comprising the sorting role of pre- and post-transition settings, the stability of mental health, and the bidirectional effects of mental health and transition settings on each other, to examine change across the mid-schooling (age 15/16 years) and post-schooling (at age 19 years) transitions. This paper provides information on a rarely studied area: sequential age-graded transitions in adolescence.

Third, with Kathryn Duckworth, Ingrid Schoon and Katariina Salmela-Aro, I am comparing the Northern Finnish Birth Cohort (born 1966) to the British Birth Cohort (born 1970). Here we are examining social and gender inequalities in the choice of mid-adolescent transition pathways, and the subsequent effects on adult wellbeing and economic success, across countries.

In addition to these three first author papers, I am collaborating as second and third author on papers with Pathways fellows Julia Dietrich, Angela Chow and Ming Te Wang.

Publications

Papers

- Symonds, J., & Hagell, A. (2011). Adolescents and the organisation of their school time: Changes over recent decades in England. *Educational Review*, 63(3), 291-312.
- Symonds, J., Dietrich, J., Chow, A. & Salmela-Aro, K. (in progress) Adolescent mental health development across two age-graded transitions in Finland.
- Symonds, J., Duckworth, K.; Schoon, I., Ek, E., Riita-Jarvelin, M. & Salmela-Aro, K., (in progress) Social and gender inequalities in pathways to adulthood in Finnish and English birth cohorts.
- Symonds, J., Chow, A., Dietrich, J. & Salmela-Aro, K. (under review). Effects of transition from compulsory schooling in Finland and England on adolescent mental health.
- Symonds, J. (under review). A mixed methods study of emotional engagement with school and stage-environment fit at school transition in early adolescence.
- Symonds, J. & Galton, M. (under review). Moving on to the next school: An international review of early adolescent development at school transition over five decades.

Books

- Symonds, J. (in press). *Understanding school transition: What happens to children and how to help them*. London: Routledge.
- Gray, J., Galton, M., McLaughlin, C., Clarke, B. & Symonds, J. (2011). *The supportive school: Wellbeing and the young adolescent*. Newcastle Upon Tyne. Cambridge Scholars Publishing.

Book chapters

- Symonds, J., Galton, M. & Hargreaves, L. (in press). Emerging gender differences at puberty and school transition: Consistency of findings across era and place. In I. Schoon & J. Eccles (Eds.). *Gender differences in aspirations and attainment*. London: Cambridge University Press.
- Hagell, A., Peck, S., Zarrett, N., Symonds, J. & Gimenez Nadal, N. (in press) Time trends in adolescent time use in the UK (in) Hagell, A. (ed.) *Changing adolescence*. London: Policy Press.

Reports

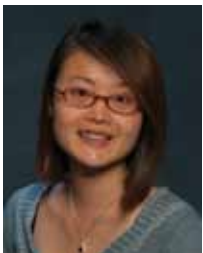
- Symonds, J., Long, M., Hargreaves, J. & Chappell, A. (2011). *Changing Key midterm report*. London: Paul Hamlyn Foundation. <http://musicalbridges.mu.synergy.tv/longitudinal-study-changing-key>.

Dissemination

- Symonds, J., Schoon, I. & Salmela-Aro, K. (2011). *How does the development of adolescents' school motivation affect their university expectations and later participation?*, European Society of Developmental Psychology, Bergen, Norway, August 23-27.
- Symonds, J., Chow, A., Dietrich, J. & Salmela-Aro, K. (2011). *Upper secondary and post-school transition effects on adolescent mental health*, Pathways meeting at Villa Lante al Gianicolo, Rome, May 16-22.
- Symonds, J., Schoon, I. & Salmela-Aro, K. (2010). *Attitude to school across the secondary school years: A comparative analysis of English and Finnish adolescents*, Pathways meeting at Cumberland Lodge, London, November 22-23.

Post-doctoral Fellows

Yi-Miau Tsai



My research focuses on motivational experience in classroom learning. I investigate intrinsic quality of momentary experience (i.e., flow and interest experience) of learners, as well as teaching enthusiasm of instructors. Using experience sampling method in combination with longitudinal data, my research seeks to understand what features of day-to-day instructional practices lead to engaged and happy learners. My research interest in instructional quality and student motivation focuses particularly in STEM domains.

Current activities

My PATHWAYS research activities focus on individual's agentic role as they apply their motivational dispositions in various achievement settings (e.g., education and career domains). My recent work investigates the role of values, including: (a) the role of domain-specific task values in initiating and sustaining adolescents' career aspiration using data from Germany and USA. This work is in collaboration with Jacquie Eccles; and (b) the role of cultural value (i.e., multifaceted effort beliefs) in learning strategies of persistence and self-handicapping. This work is conducted with Taiwanese and Finnish students in elementary and middle school, in collaboration with Katja Upadyaya. Dealing with highly dimensional constructs such as values and beliefs, my research draws on two methodological approaches. First, using a person-centred approach, I investigate the calibration of a set of values within individuals. This includes person-centred techniques such as cluster analysis, mixture modelling etc. Second, I investigate individuals with dense measures in transitional phases (e.g., leaving school beginning to work) when existing values structure is most likely to be challenged.

Publications

Papers

- Tsai, Y. -M., Kunter, M., Lüdtke, O., Trautwein, U (revise & resubmit). Competence Perception Stability: Does it predict Long-Term School Performance? *Journal of Research in Personality*.
- Parker, P., Schoon, I., Tasi, Y. -M., Nagy, G., Trautwein, U., & Eccles, J. S. (revise & resubmit) Achievement, Agency, and Student Background Factors as Predictors of Post-school Choices: An Multi-Context Study.
- Tsai, Y. -M., & Eccles, J. S. (in preparation). Science-Related Career Aspiration: Gender differences in the Roles of Expectancy and Value
- Tsai, Y. -M., & Eccles, J. S. (in preparation). Changed Career Aspiration: The Roles of Family Background and Individual Characteristics

Dissemination

- Tsai, Y. -M., & Upadyaya K. M. (Aug/Sep, 2011). How teachers explain children's success and failure? Comparison between ability attribution and other causes. Poster presented at European Association of Research on Learning and Instruction, Exeter, UK.
- Tsai, Y. -M., & Eccles, J. S. (March/April, 2011). Mathematics, the only critical filter? Predicting adolescents career aspiration with self-concept and ability in multiple domains. Paper presented at the biennial meeting of the Society for Research in Child Development, Montreal, Quebec, Canada.
- Tsai, Y. -M., & Eccles, J. S. (March/April, 2011). Changed Career Aspiration during transition to adulthood: The role of family background and parenting characteristics. Paper presented at the biennial meeting of the Society for Research in Child Development, Montreal, Quebec, Canada.
- Lay, K.-L., Chang, T.-C., & Tsai, Y.-M. (March/April, 2011). The vulnerability of Chinese adolescents holding the incremental view of intelligence: The effect of the entity view of effort. Poster presented at the biennial meeting of the Society for Research in Child Development, Montreal, Quebec, Canada.

Poster presentations

- Katja Upadyaya, Yi-Miau Tsai, & Kaisa Aunola. How teachers' daily attributions and perceptions of success predict children's success and performance during the first grade of primary school? Poster accepted for EARLI, Aug, 2011

Post-doctoral Fellows

Katja Upadyaya



Fellowship experience

I joined PATHWAYS in May 2009. My research interests are parent-child and teacher-student interaction, and particularly how these relationships influence children's and student's learning and motivation at school. I wrote my PhD thesis in 2007 at the University of Jyväskylä, Finland concerning parent's causal attributions and children's academic achievement. Following this my research focused on teacher's beliefs and their association with children's academic skills and motivation which was funded by the Finnish Cultural Foundation. In 2009 I received a three year funding from the Academy of Finland for my postdoctoral research project concerning teachers' beliefs and children's learning. Currently I am working as a post doctoral researcher at the Research Center for Group Dynamics (RCGD), University of Michigan, and continuing to do research on teacher-student interaction in the Childhood and Beyond (CAB) study.

I have also been doing research related to the development of motivation and self-concept of adolescents (MSALT Study) and school engagement and its possible antecedents and consequences (FinEdu Study).

I received the Jacobs Foundation fellowship award for excellent young researcher in August 2011

Current activities

Over the academic year 2010-2011 I have attended several international congresses, such as AARE in Melbourne (Australia), SRA in Montreal (Canada), ECP in Istanbul, and ECDP in Bergen (Norway). In AARE and ECP I organized a symposiums, and in Melbourne I was also visiting the Monash University and gave one lecture there concerning teachers' beliefs in different countries. In SRA I had two poster presentations and in ECDP I was participating the symposium organized by Prof. Katariina Salmela-Aro. In ECDP I also received an award for excellent young researcher (Jacobs Foundation). Over the year I have submitted several manuscripts to various international journals and three other papers are almost ready for submission. I have been collaborating with Prof. Jacquelynne Eccles and Prof. Katariina Salmela-Aro while preparing these manuscripts. In addition, I have been preparing papers for two special issues organized by PATHWAYS fellows. I also submitted a paper for the PATHWAYS gender book and Pathfinder newsletter.

Publications

- Salmela-Aro, K. & Upadyaya, K. (in press). School engagement inventory: Reliability and validity. *European Journal of Psychological Assessment*.
- Upadyaya, K., Viljaranta, J., Nurmi, J.-E., Lerkkanen, M.-K., & Poikkeus, A.-M. (submitted). Cross-lagged relations between preschool teachers' causal attributions and children's interest value and performance in math.
- Upadyaya, K., Mägi, K., & Kikas, E. (submitted). How Do Teachers' Perceptions of Their Students' Ability and Effort Predict Children's Task-Avoidant Behavior and Performance in Math and Reading?
- Upadyaya, K., Vida, M., & Eccles, J.S. (submitted). Do teachers' perceptions of children's math and reading related ability and effort predict children's self-concept of ability in math and reading?
- Salmela-Aro, K. & Upadyaya, K. (submitted). Demands-resources model of engagement, burnout and later adaptation in school context.
- Upadyaya, K. & Eccles, J.S. (submitted). Teachers' ability and effort perceptions, gender differences, and associations with children's ability self-concepts and performance in math and reading.
- Upadyaya, K. & Eccles, J. S. (in preparation). How Teachers' Perceptions Predict Children's Math Interest from Kindergarten to Sixth Grade?
- Upadyaya, K., Watt, H. M. G., & Eccles, J.S. (in preparation). Teachers' efficacy beliefs and perceptions concerning individual children's ability and effort.
- Upadyaya, K., Salmela-Aro, K. (in preparation). Engagement with school and work: Trajectories from post-comprehensive education to higher education and work.
- Upadyaya, K., Salmela-Aro, K. (in preparation). School engagement, academic success, and well-being.

Dissemination

- Upadyaya, K. & Salmela-Aro, K. (2011). From school to work: Development of schoolwork engagement. 15th European Conference on Developmental Psychology, 26.8. 2011, Bergen, Norway.
- Upadyaya, K. & Eccles, J. S. (2011). How teachers' perceptions impact children's interest in math across the primary school years? European Congress of Psychology, 6.7.2011, Istanbul, Turkey.
- Upadyaya, K. (2010). How teachers' perceive students' success in different countries? Visiting scholars' presentation and Faculty of Education seminar, 25.11.2010, Monash University, Melbourne, Australia.
- Upadyaya, K., Vida, M., & Eccles, J. S. (2010). How teachers' perceptions of innate abilities and effort contribute to children's motivation across the primary school years? Australian Association for Research in Education (AARE) conference, 29.11.2010, Melbourne, Australia.
- Upadyaya, K. & Salmela-Aro, K. (2010). Structure of adolescents' school engagement, relation to burn out, antecedents and consequences. Australian Association for Research in Education (AARE) conference, 30.11.2010, Melbourne, Australia.

Poster presentations

- Upadyaya, K., Mägi, K., & Kikas, E. (2011). How Teachers' Ability and Effort Beliefs Predict Children's Task Avoidant Behavior and Performance? Society for Research in Child Development (SRCD) 2011 Biennial Meeting, 31.3.2011, Montreal, Canada.
- Upadyaya, K., Vida, M., & Eccles, J. S. (2011). Teachers' perceptions of innate ability and effort and the development of children's interest values. Society for Research in Child Development (SRCD) 2011 Biennial Meeting, 1.4.2011, Montreal, Canada.

Awards

- Jacobs Foundation fellowship award for excellent young researcher (ECDP 2011 congress in Bergen, August 2011)

Post-doctoral Fellows

Ming-Te Wang



I became a PATHWAYS Fellow in July 2010, and since June 2011 I am a Research Scientist and Research Assistant Professor in the Institute for Social Research at University of Michigan. I received my doctorate in Developmental Psychology from Harvard University. Prior to entering graduate school, I was a school counsellor in a rural middle school. This professional experience provided me with an insight into the complex web of cultural and contextual processes and their impact on development and the importance of early prevention and intervention. My research has focused on the impact of school and family climate on adolescent motivational beliefs and engagement and the effects of multiple ecological systems on the behavioural, social, and emotional development of youth from diverse socioeconomic and cultural backgrounds. My work is noteworthy in that it emphasizes the interplay of developmental processes across both academic and social domains in adolescence, and situates these processes within family, school, and community contexts.

Current activities

Over the past year, my research has focused on three specific areas: 1) the conceptualization and development of student engagement measures, including general school engagement and classroom engagement across specific subject domains; 2) the examination of antecedents, correlates, and long-term outcomes of youth academic motivation and engagement, as well as the factors and processes promoting the educational and career development of youth; and 3) the developmental impact of school- and community-based interventions targeting adolescents' academic skills as well as mental health.

Publications

Papers

- Wang, M. T., & Holcombe, R. (2010). Adolescents' perceptions of classroom environment, school engagement, and academic achievement. *American Educational Research Journal*, 47, 633-662.
- Wang, M. T., Willett, J. B., & Eccles, J. S. (2011). The assessment of school engagement: Examining dimensionality and measurement invariance across gender and race/ethnicity. *Journal of School Psychology*, 49, 465-480.
- Wang, M. T., Dishion, T. J., Stormshak, E. A., & Willett, J. B. (2011). Trajectories of family management practices and early adolescence behavioral outcomes in middle school. *Developmental Psychology*, 47(5), 1324-41
- Wang, M. T., & Eccles, J. S. (in press). Social support matters: Longitudinal effects of social support on three dimensions of school engagement from middle to high school. *Child Development*.
- Wang, M. T., & Dishion, T. J. (in press). The effects of students' school climate perceptions on trajectories of problem behaviors during the middle school years. *Journal of Research on Adolescence*.
- Wang, M. T., & Eccles, J. S. (in press). Adolescent behavioral, emotional, and cognitive engagement trajectories in school and their differential relations to educational success. *Journal of Research on Adolescence*.
- Wang, M. T., & Huguley, J. (in press). The buffering role of racial socialization from parents on the association between racial discrimination and adolescents' educational outcomes. *Child Development*.
- Wang, M. T. (in press). Educational and career interests in Math: A longitudinal examination of the links between perceived classroom environment, motivational beliefs, and interests. *Developmental Psychology*.

Dissemination**Selected Conference Presentations**

- Wang, M. T. (April 2011). *Longitudinal trajectories of three dimensions of school engagement during adolescence*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.
- Wang, M. T. (March 2011). *From a multidimensional and longitudinal perspective to re-examine students' engagement and achievement in school*. Paper presented at the biennial meeting of the Society for Research in Child Development, Montreal.
- Wang, M. T., Dishion, T. J., & Willett, J. B. (August 2010). *Trajectories of Family Management Practices and Early Adolescent Behavioral Outcomes in Middle School*. Paper presented at the annual meeting of the American Psychological Association, Santiago. *awarded Division 7: Developmental Psychology's Best Graduate Student Paper.

Invited Talks

- Wang, M. T. (2010). Engaged or not engaged: School environment support and student engagement during adolescence. Department of Human Development, University of Maryland, College Park MD.
- Wang, M. T. (2010). The classroom engagement framework: Conceptualizing and developing a tool for research and practice. School of Education, University of Virginia, Charlottesville VA.
- Wang, M. T. (2011). School engagement as a protective factor for youth at risk for substance use and mental health. School of Education, Tufts University, Somerville MA.
- Wang, M. T. (2011). Engaged or not engaged: School environment support and student engagement during adolescence. Psychology Department, University of Pittsburgh, Pittsburgh PA.
- Wang, M. T. (2011). Developmental dynamics of student engagement across contexts and cultures. Survey Research Center, University of Michigan, Ann Arbor MI.

Awards

- National Institute of Child Health & Human Development Fellow (2011), Applied Research in Child and Adolescent Development Summer Institute
- American Educational Research Association Fellow (2011), Summer Institute on Statistical Analysis for Education Policy



PATHWAYS 5th workshop at the Villa Lante, Rome in May 2011



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