

2018 SLLS CONFERENCE ABSTRACT BOOK
(In order of conference programme)

Day 1 Monday 9 July 2018

KEYNOTE PRESENTATION

Transition to Parenthood: The Contribution of Longitudinal Qualitative Studies

Professor Manuela Naldini, University of Turin, Italy

Transition to parenthood is a crucial step in the life of the individual (and the couple), since it is the period in which the couple is transformed into parents, thus 'making' the family. In the wake of the 'instability' of contemporary families, a baby's arrival marks a turning point, as it symbolizes that the relationship is long-lasting. It also symbolizes the family's continuity through generational relationships. In the dynamic of the relationship between families and social change, the transition to parenthood is also a crucial phase, when the previous gender division of paid and unpaid work and the existing work-family balance within the couple must be re-examined from the ground up. Studies indicate that the transition to parenthood is often accompanied by a return to traditional gender roles, even among formerly egalitarian couples (Fox, 2009; Miller, 2011; Grunow & Evertsson, 2016). Arguably, parenthood creates gender more thoroughly than any other experience in most people's lives. Luckily, contemporary qualitative longitudinal research has become increasingly fruitful as a means of understanding and assessing change and persistence of gender separate spheres over time.

This presentation will discuss a longitudinal qualitative study of couples. The study was based on longitudinal interviewees with highly educated dual earner couples living in Italy. Two broad issues emerge from the illustration of the research design, results, and data analysis practices. First, there is a need for more qualitative longitudinal investigations of 'doing' and 'undoing' gender parenting. Second, the methodological challenges involved in systematically analyzing longitudinal qualitative data have rarely been addressed.

Parallel Session 1

1A PAPER SESSION: HEALTH

Are the Needs of Individuals with Mental Illness Met? A Record Linkage Investigation

Foteini Tseliou, Dermot O'Reilly, Queen's University Belfast, UK; Michael Rosato, Ulster University, UK

Background: With mental illness rates on the rise globally there is a paramount need to investigate whether the needs of sufferers are fully addressed. To that end we investigated the link between self-reported mental ill health and likelihood of receiving treatment in a population cohort comprised of 28% of the total Northern Ireland population.

Methods: A record linkage of the 2011 Northern Ireland Census returns and a population-wide prescribing database was implemented. The presence of a chronic mental health condition, as assessed through the Census self-reported mental health question, was compared to regular psychotropic medication use in the six and twelve months following the Census.

Results: Of the 23,803 individuals (aged between 25-74) who reported chronic mental ill-health in the Census, 22% were not in receipt of medication over the following six months, with this reducing to 18.5% by the twelve-month point. After full adjustment, likelihood of mental health unmet need was higher among men (female: OR=1.78: 95%CI=1.66-1.90), those of non-white ethnicity (OR=0.38: 95%CI=0.26-0.54), never married (OR=0.67: 95%CI=0.61-0.82), renters (OR=1.28: 95%CI=1.18-1.38) and living in a rural area (OR=0.88: 95%CI=0.79-0.98). These associations were not present for the control condition tested (respiratory problems).

Conclusions: Unmet need, assessed by the absence of prescription, was observed among individuals with insight of their mental-ill health and who did report their condition in the Census. Further exploration of unmet mental health needs and their variation on the basis of sociodemographic characteristics could be achieved through the inclusion of specific diagnoses, towards a more thorough understanding of the observed association.

Neighbourhood Level Reported Crime and Mental Health: A Longitudinal Record-Linkage Study from Scotland

Gergő Baranyi, Jamie Pearce, Chris Dibben, University of Edinburgh, UK; Sarah Curtis, Durham University, UK

A growing body of research is focusing on the association between the area where people live and their mental health. Although crime and violence are considered as major health risks for those directly affected, less attention has been paid to the effect of neighbourhood crime on the residents' wellbeing. There are also methodological limitations with the existing studies. In particular, a paucity of studies using longitudinal analyses. Further, studies often assess neighbourhood crime using subjective perception of study participants, which might be affected by same-source bias. The aim of the study is to investigate the longitudinal effect of small area level reported crime, an objective measure of neighbourhood exposure, on residents' psychological distress. This investigation makes use of the Scottish Longitudinal Study, a census-based nationally representative 5.3% sample of the Scottish population. Over 140,000 adults were linked based on their residential information provided by the 2011 Census, with data zone level (500-1000 residents per zone) aggregated crime from 2010-2011. The primary outcomes are prescribed antidepressant, anxiolytics and antipsychotic medications derived from the Prescription Information System (NHS Scotland), available from 2009 onwards. In order to create a clear baseline, we excluded individuals with any medication for mental health problems in 2009; remaining individuals were followed up between 2010 and 2014. Multilevel Cox proportional hazards models are used to assess the effect of crime on new cases of prescription. Preliminary results indicate elevated risk of mental health medication amongst individuals residing in neighbourhoods with higher crime rates, even after adjusting for individual and social factors. Further analyses will stratify the sample by gender and age groups, and consider whether these relationships are modified by neighbourhood deprivation. Better understanding of the relationship between neighbourhood crime and psychological distress can improve neighbourhood-based public health interventions in order to tackle the collateral damage of crime.

Improved Mental Health Through Involvement in a Diverse Social Network? Social Embeddedness as a Determinant of Refugee Mental Health Over the Course of Resettlement

Lea-Maria Löbel, German Institute for Economic Research (DIW), Germany

Refugees go through a variety of phases in their resettlement process: enduring war and prosecution, taking the decision or being forced to leave home, choosing a route to a different place and settling down in the host community. During this process, refugees are subjected to various stressors that may impact their mental health. The outcome-oriented approach has led research to focus on the prevalence of refugee mental ill-health, measuring depression rates and incidence of post-traumatic stress disorder among the refugee population. A different but promising approach centers on the process of forced migration and studies the stressors and mediating factors during resettlement. This approach offers a starting point for meaningful intervention in the host community. Especially the social network of a refugee can mediate stressors through social support provided by the various ties between the refugees and community members: family, friends, and various acquaintances.

This paper uses cross-sectional survey data from the 2016 IAB-BAMF-SOEP Survey of Refugees in Germany to examine the determining factors of refugee mental health before, during, and after resettlement. Further, the paper investigates the potential of refugee social networks as mediators of refugee mental well-being using structural equation modelling. The primary focus of the analysis is the mediating effect of refugee family structures in the host community. As these close ties are potential sources of emotional support, a positive influence on refugee mental well-being can be expected. With this analysis, the paper contributes to the discussion on the role of community based programs to facilitate social support for refugees and the debate on family reunification in host countries.

Duration, Timing and Order: How Housing Histories Relate to Later Life Wellbeing

Bram Vanhoutte, James Nazroo, University of Manchester, UK; Morten Wahrendorf University of Düsseldorf, Germany

Accumulation, critical period and social mobility are three powerful, interrelated life course mechanisms often tested using relatively crude empirical measures. This contribution wants to highlight the possibilities of life history data in grasping the importance of duration, timing and order of housing over the life course, by examining its association with wellbeing in later life. Housing is a key dimension of life course socioeconomic position, as the most common form of wealth accumulation in the UK. Our study makes use of the residential life history data, from birth up until the age of 50, collected in wave 3 of the English Longitudinal Study of Ageing (ELSA), in a combination of sequence analysis, cluster analysis and regression techniques. A longer duration of renting and owning accommodation is related to respectively worse and better later life affective and eudemonic wellbeing. Moving more in childhood is not associated with later life wellbeing, while frequent moving in young adulthood has a positive association with affective and eudemonic wellbeing. Moving more in midlife is associated with lower life satisfaction. Ten distinct housing careers emerge, illustrating the importance of accommodating heterogeneity in the population. Downward housing trajectories are associated with significantly lower later life wellbeing, while growing up abroad as a child is associated with higher later life wellbeing.

1B PAPER SESSION: FAMILY

Longitudinal Predictors of Fathers' Involvement in their Six-Year Old Child's Life: Evidence from Growing Up in New Zealand

Lisa Underwood, Marjolein Verbiest, Susan Morton, University of Auckland, New Zealand; Alex Lewis, University of Otago, New Zealand

The importance of fathers' involvement with their children has been widely studied, especially with regards to child developmental outcomes such as behaviour. However, less is known about the factors that contribute to different levels of paternal involvement, especially from a longitudinal perspective. The "Who Are Today's Dads?" project collected questionnaire data from 4,121 fathers of the Growing Up in New Zealand birth cohort when the children were six years of age. Longitudinal data from before the children were born (during the third trimester of their mothers' pregnancy), at nine months, two years and six years were available for an ethnically and socio-demographically diverse group of 3,207 fathers. Among this group, 8.6% were identified as having a low level of day to day involvement in their six-year old child's life. A wide range of predictors of level of involvement were explored including fathers' characteristics such as age, ethnicity, socioeconomic status, employment status and work/life balance, relationship with child's mother, health, and wellbeing. This research will allow for a clearer and more focused understanding of determinants of fathers' involvement in their children's lives. This may inform support programmes to be put in place to aid in bettering paternal involvement.

Paternity Leave-Taking and Father Involvement Among Disadvantaged Fathers in the U.S.

Chris Knoester, The Ohio State University, USA; Richard J. Petts, Ball State University, USA; Brianne Pragg, Penn State University, USA

This study uses longitudinal data from a national sample of urban births in the U.S. to examine the practices of paternity leave-taking and subsequent father involvement trajectories among disadvantaged fathers. Paternity leave-taking and lengths of leave are positively associated with subsequent engagement activities and taking responsibility for one's child, one year after birth. In addition, paternity leave-taking is positively associated with father's trajectories of taking responsibility for one's child, over the first five years after birth. Lengths of paternity leave are positively associated with father's trajectories of engagement activities. Finally, there is evidence that paternity leave-taking and lengths of leave-taking are especially likely to boost the engagement activities and the taking of responsibility for one's child among non-resident fathers.

Parenting Typology and Child and Adolescent Mental Health Problems

Aase Villadsen, Emla Fitzsimons, University College London, UK; Roxanne Connelly, University of Warwick, UK

A multitude of factors have been shown to contribute the development of childhood and adolescent mental health problems. However, family environment and parenting are highlighted as especially influential, with the period of early childhood being regarded as formative years that continue to shape outcomes later in life. A well-known theoretical framework of parenting is Baumrind's typology of parenting: authoritative, permissive, authoritarian, and uninvolved. These are based on configurations of high and low parental responsiveness (warmth) and demandingness (rules and structure). The authoritative parenting type, which is characterised by high levels of warmth and high structure, is regarded as the most optimal in terms of child functioning. A number of previous studies have confirmed this; although these have largely examined concurrent or at best short-term associations between parenting types and child functioning. Very little is known about the influence of parenting types on children and adolescents' long-term adjustment. Our current study aims to close this knowledge gap. Using data from the Millennium Cohort Study we examine parenting types in early childhood and their longitudinal prediction of mental health difficulties through childhood to early adolescence.

Family Socio-Economic Status, Dimensions of Parenting and Child Development

Tomas Cano, Pompeu Fabra University, Spain

Children growing up in more advantaged families have better achievement and higher attainment on average than low-SES children. To explain these gaps, most of the research have focused in the relation between parental investments (i. e. money and time) and children outcomes. However, little is known about how social class shapes parents' dimensions of parenting (i. e. warmth, attention, inductive reasoning) and how these dimensions affect children outcomes. To investigate such associations, I use three waves from the Longitudinal Study of Australian Children and a sample of 3,123 children when they are 4, 6 and 8 years old. Results show that there are consistent association between family socio-economic status and the dimensions of parenting. In addition, there are consistent and strong associations between the dimensions of parenting and a wide range of children outcomes, including cognitive development and socio-emotional and behavioral problems.

1C PAPER SESSION: CHILD

The Changing Nature of Home Moves Over the Course of Childhood

Ludovica Gambaro, German Institute for Economic Research (DIW Berlin), Germany; Heather Joshi, UCL Institute of Education, UK; Tim Morris, University of Bristol, UK

Moving home is a common feature of the family life course. Although many moves are an opportunity to improve housing space and neighbourhood quality, they can also result from disruptive family events such as partnership break-up. If children's risk to experience a change in family structure increases over time, this latter type of move may become more prevalent in later childhood. Furthermore, moves occurring in late childhood are more likely to interfere with schooling and friendships than earlier moves are. This paper examines households' moves involving children in the UK during their first 14 years. We assess the prevalence and nature of moves in relation to children's age and previous moving history, asking three research questions. First, does the probability of moving vary with children's age? Second, does the influence of life events on the probability of moving change as children grow older? Third, is there any change in the probability of achieving home ownership through moving as children grow older? We draw on data from all available waves of the Millennium Cohort Study where families participated in at least two waves (n=17,300). We employ event history analysis treating moves as recurrent events. Our results indicate that the probability of a cohort child moving is highest between the first two waves, at 33%, and subsequently declines. There is a second, lower, peak around the time of transition to secondary school (20%). Partnership changes are positively associated with moves at all waves, but moves at older ages appear more likely to involve single mothers. When looking at housing tenure, we find a slight decline of moves into home ownership and a concomitant increase of moves into private renting. In sum, while home moves become less common during children's life, they also become more disadvantageous, with potential negative consequences for children's development.

Pre-schoolers' Self-Regulation, Skill Differentials, and Early Educational Outcomes

Anika Bela, Leibniz Institute for Educational Trajectories (LifBi), Germany; Johanna Sophie Quis, Guido Heineck, University of Bamberg, Germany

Are there skill differentials in young children's competences by their self-regulation abilities and do such differences early in life possibly mark the onset of increasing disparities in competence development? Whether self-regulatory capabilities play a role for life outcomes has been investigated within psychological as well as economic research, where there is interest on such issues within the more general research field on time preferences. We add to existing research by investigating the relationship between pre-schoolers' self-regulation and their mathematical competence as well as their mathematical competence development in primary school for Germany. We use data from a test of individual's ability to delay gratifications – related to, yet different from the well-known Marshmallow test (Mischel et al., 1989) – which was carried out with six-year-old preschool children from the kindergarten cohort (SC 2) of the German National Educational Panel Study (NEPS). Controlling for a rich set of relevant background variables, our preliminary results suggest a significantly positive association between self-regulation and children's mathematical literacy. We find these differentials not only for mathematical competence scores measured in kindergarten, but also for competence scores from tests conducted in first and second grade of primary school.

The patterns remain the same even when holding general cognitive ability in kindergarten constant. Yet, self-regulation is not related to competence development over the first two years of primary school, meaning that the overall initial skill gap neither widens nor narrows. Heterogeneity analyses, however, show that self-regulation especially benefits children with low initial levels of mathematical competence.

Using Genetic Information to Investigate the Role of Cognitive and Non-Cognitive Ability in Educational Attainment and Social Inequalities Therein

Tim Morris, Neil Davies, Danny Dorling, George Davey Smith, University of Bristol, UK

Research into educational attainment and inequalities has focussed heavily on social factors, with little consideration of how genetics may contribute to differences or inequalities in attainment. In this study, we investigate the genetic architecture of cognitive and non-cognitive ability and how this may contribute to educational attainment and social inequalities therein. Longitudinal data are used from a UK birth cohort, the Avon Longitudinal Study of Parents and Children. Data linkage is used to obtain key stage point scores of attainment from the National Pupil Database. A genome wide approach using generalized restricted maximum likelihood (GCTA-GREML) is used to (i) estimate the heritability of cognitive ability and non-cognitive ability (defined as the proportion of variance in each that reflects common genetic variation between individuals), and (ii) estimate genetic correlations between these traits and educational attainment and socioeconomic position.

Our results provide robust evidence for a genetic contribution towards cognitive and non-cognitive ability in our sample. Furthermore, we observe high genetic correlations between both cognitive and non-cognitive ability and educational attainment that remain stable throughout the educational lifecourse, suggesting that many of the variants that contribute to differences in these abilities between children also contribute towards differences in educational attainment. Genetic correlations between educational attainment socioeconomic position measured on both linear and binary scales are high and increase with age.

This study demonstrates a complex interplay between genetic and social factors, in which some of the same common genetic variants that explain variation in cognitive and non-cognitive ability also explain variation in educational attainment. Observed differences and inequalities in educational attainment by socioeconomic position are likely to partly reflect common underlying processes and biologically entrenched intergenerational inequality.

1D PAPER SESSION: LATER LIFE

The Influence of Psychosocial Working Conditions on Late-Life Physical Functioning

Ingemar Kåreholt, Charlotta Nilsson, Alexander Darin-Mattsson, Karolinska Institutet/Stockholm University, Sweden; Ross Andel, University of South Florida and International Clinical Research Center, USA

Background: In older adults, increasing age correlates with declining physical functioning. The growing challenge posed by an aging population makes finding predictors of physical functioning in old age increasingly important. Work dominates much of our adult lives. Active jobs (high psychological demands, high control) are considered to increase learning, which may reduce the perception of situations as stressful and instead be viewed as challenges and opportunities for personal growth. This will, in turn, lead to feelings of self-efficacy that may encourage an active leisure-time, such as physical activity. We investigated the long-term association between active jobs and late-life mobility.

Method: Two individually linked Swedish surveys were used (n = 775). A psychosocial job exposure matrix was used to measure active jobs four times in midlife (age 40-65). Mobility was measured in 2014 as the self-reported ability to stand without support, walk up and down stairs, walk 100 meters fairly briskly, rise from a chair with arms crossed across the chest, and ability to balance indoors, summarized in a 5-item index (0-5). Data were analyzed with ordered logistic regressions.

Results: Having an active job was associated with significantly better mobility in old age compared to people in non-active jobs. However, the accumulated score of active jobs over working life were not more strongly associated with mobility in old age than the score of active job in 1991, which may indicate that the conditions of a person's most recent job mattered the most.

Conclusions: Active job conditions in midlife are important predictors of mobility in old age. Promoting active job conditions may be used to improve midlife interventions aimed at preventing physical deterioration later in life.

The Heterogeneity of Disability Trajectories in Later Life: Dynamics of Activities of Daily Living Performance Among Nursing Home Residents

Danilo Bolano, Andre Berchtold, University of Lausanne, NCCR LIVES, Switzerland

Objectives: This study investigated the variability in Activities of Daily Living (ADL) trajectories among 6,155 nursing home residents using unique and rich observational data.

Methods: The impairment in ADL performance was considered as a dynamic process in a multi-state framework. Using an innovative mixture model, such states were not defined a priori but inferred from the data.

Results: The process of change in functional health differed among residents. We identified four latent regimes: stability or slight deterioration, relevant change, variability, recovery. Impaired body functions and poor physical performance were main risk factors associated with degradation in functional health.

Discussion: The evolution of disability in later life is not completely gradual or homogeneous. Steep deterioration in functional health can be followed by periods of stability or even recovery. The current condition can be used to successfully predict the evolution of ADL allowing to set and target different care priorities and practices.

Prolongation of Working Life and Physical Functioning in Old Age in Sweden

Harpa Eyjólfsdóttir, Neda Agahi, Johan Fritzell, Carin Lennartsson, Aging Research Center, Karolinska Institutet and Stockholm University, Sweden; Isabel Baumann, Zurich University of Applied Sciences, Switzerland

Background: Previous studies examining the impact of retirement on physical health have shown mixed results, which may be due to socioeconomic differences or because of insufficiently addressing factors preceding retirement. Individuals with high socioeconomic status (SES) who extend their working lives may have better working conditions, while those with low SES may extend their working life for economic reasons despite health issues or poor working conditions, resulting in poor physical function in old-age. The overall aim is to explore 1) if there is an association between retirement age and late life physical functioning, and 2) if the association differs by socioeconomic status.

Methods: Data are used from two interrelated nationally representative longitudinal studies: The Swedish Level of Living Survey (LNU) and the Swedish Panel Study of Living conditions of the Oldest Old (SWEOLD), linked to annual tax register data. We apply Propensity score matching using a set of control variables that are expected to influence both retirement and late-life health. After matching we use Average treatment effects on the treated (ATT) to estimate the effect of prolonging working life on late life health. Finally, we carried out a logistic regression analysis with the respective physical health indicator as dependent variable and socio-economic status as independent variable.

Results: Preliminary results showed that for mobility, musculoskeletal pain, self-rated health and ADL limitations, there are small but significant positive effects of delaying retirement beyond age 65 compared to those who retired earlier. Results from stratified analysis by SES showed that manual workers had non-significant but positive effects of delaying retirement.

Occupational Complexity in Relation to Late Life Physical Functioning in Sweden

Ingemar Kåreholt, Alexander Darin Mattsson, Stefan Fors, Charlotta Nilsen, Johan Fritzell, Aging Research Center (ARC), Karolinska Institutet, Sweden; Ross Andel, University of South Florida and International Clinical Research Center, USA

Background: Higher occupational complexity has consistently been associated with less cognitive decline, decreased risk of dementia, less psychological distress, and lower mortality. We build on this research by investigating the association between occupational complexity and physical functioning in late life.

Methods: Two linked Swedish nationally representative surveys were used. Midlife health, education, social class, income, and occupational complexity from current/latest occupation was assessed in 1991. We also created an aggregated score (measured as ages 25, 30, 35, 40, 45, and 50 in addition to the first and last occupation). Trajectories of change in complexity scores were measured using random slope and intercept models. Physical functioning was assessed in 2014 by self-reported mobility limitations and limitations in activities of daily living (ADL).

Results: The results show an association between latest and aggregated higher occupational complexity and fewer mobility and ADL limitations. Adjusting for midlife health only moderately affected the associations. But, the associations were reduced to non-significant when adjusted for education, social class, and income. Trajectories of occupational complexity were only marginally, or not at all, associated with physical functioning in late life.

Discussion: Occupational complexity was associated with physical functioning; however, the association could be entirely attributed to socioeconomic position. The initially observed associations between occupational complexity and physical functioning in late life appear to be explained by the same pathways as socioeconomic position.

Conclusions: Prolonging working life was generally associated with better physical functioning in later life and did not increase socioeconomic health differences in late life. This could have important policy implications as many countries create policies encouraging older work force to stay in employment.

1E SYMPOSIUM

Growing Up Healthy in Families Across the Globe: Harmonising Five Longitudinal Studies

Convenor: Chris Cunningham, Massey University, New Zealand

Children develop best when raised in functioning and supportive families. The Growing Up Healthy in Families Across the Globe project aims to compare outcomes from UK/EU child cohort longitudinal studies to Aotearoa/New Zealand based studies. The project brings together five of the most important studies (in terms of child development) with relevance to New Zealand. The Pacific Islands Family Study, Te Hoe Nuku Roa (Māori Families Longitudinal Study) and the triad of Growing Up studies (New Zealand, Ireland and Scotland) provide a detailed collection of data with high analytical potential for Māori, Pasifika and New Zealand European, but also with strong European comparators from very similar countries (Ireland/Scotland).

The symposium will provide an overview of the Growing Up Healthy in Families Across the Globe project, detail of the five individual studies (including highlights of findings from the studies) and an outline of the approach, strategy and initial findings from the investigation into harmonised analysis across the studies.

Children in New Zealand, Ireland and Scotland: An Introduction to Five Longitudinal Cohort Studies

Presenter: Patty Doran, University of Manchester, UK

Co-authors: Chris Cunningham, Massey University, New Zealand; Susan Morton, University of Auckland, New Zealand; El-Shadan (Dan) Tautolo, Auckland University of Technology, New Zealand; James Williams, Economic and Social Research Institute, Ireland; Paul Bradshaw, ScotCen, UK

The Growing Up Healthy in Families Across the Globe project is examining the possibility of coordinating harmonised analysis using five longitudinal studies. The studies have been carried out in New Zealand, Scotland and Ireland. The three countries have similarities that span across population size, government, health and education systems, dual languages, and inequalities. The similarity in settings enhances the potential value of harmonising analysis from their respective similar longitudinal child cohort studies.

This paper will introduce the five longitudinal studies. Three of the studies come from New Zealand. The oldest study is Te Hoe Nuku Roa – Best Outcomes for Māori and was designed specifically to capture the influence of Māori society on personal and family development. The second study, the Pacific Island Families Study follows the development of New Zealand born children identifying as Pacific Islanders. Growing Up in New Zealand is a longitudinal study following the lives of children (from before birth) representing the diversity of contemporary New Zealand births. Comparison between New Zealand, Scotland and Ireland has been carried out using the studies Growing Up in Scotland and Growing Up in Ireland, both on-going child cohort studies.

An underpinning objective of the five studies is to understand what shapes trajectories of development (both positive and negative influences) on children and families growing up in specific societal context and to inform policy to potentially improve population wellbeing across the lifecourse. The aim of harmonised analysis is to increase understanding of how families change over time and to determine how and why environments change, which environments are supportive and which are not and how the policy context can shape these environments. This paper will discuss the history of the studies and the context in which they were carried out. Similarities and differences across the studies will be identified and the aims of the proposed harmonised analysis presented.

Growing Up in New Zealand, Developing Culturally Appropriate Survey Techniques and Frameworks for Data Collection, and Sharing Findings with Policy Makers

Presenter: Susan Morton, University of Auckland, New Zealand

Co-authors: El-Shadan (Dan) Tautolo, Auckland University of Technology, New Zealand; Chris Cunningham, Massey University, New Zealand

Aotearoa/New Zealand is an increasingly ethnically diverse country. The indigenous Māori together with the Pacific and Asian populations currently make up about a third of New Zealanders, but a greater proportion of current births so diversity is projected to increase.

This paper discusses three longitudinal cohort studies that have been designed to learn more about children and families growing up in New Zealand with a particular focus on ethnicity and cultural features of the country. A novel approach was taken in the planning stages of Te Hoe Nuku Roa – Best Outcomes for Māori, a longitudinal study of Māori families. In partnership with stakeholders from the Māori community, a framework was developed that took into consideration influences from Māori society and acted as a gauge of personal and family development. Likewise, unique to the Pacific Island Families Study a Pacific-appropriate framework was adopted. Pacific people were involved in the consultation, design, development and delivery of the study and this was seen as a crucial aspect of the study framework. The contemporary longitudinal study, Growing Up in New Zealand has a life course framework and a conceptual underpinning that respects the diversity of ethnicities of children represented in contemporary New Zealand births. It has an explicitly translational component and the children are broadly generalizable to all current births in terms of their ethnic and socioeconomic diversity. The three studies have produced insight into the associations between ethnicity, health and socio-economic disparities in Aotearoa/New Zealand. Findings both from the processes involved in creating the studies and from the survey analysis have been used to influence public policy – most notably in relation to family health services, Whānau Ora. Lessons learnt and findings from the studies will be discussed, as well as the plans for the future delivery of the studies and the benefits of involvement in Growing Up Healthy in Families Across the Globe.

Comparisons of Social Gradients in Children’s Health in Ireland and Scotland: An Example of the Benefits of Ex-Post Data Harmonisation from Two Longitudinal Child Cohort Studies

Presenters: James Williams, Economic and Social Research Institute, Ireland; Paul Bradshaw, ScotCen, UK

Co-author: Emer Smyth, Economic and Social Research Institute, Ireland

Research has consistently shown that children from more socially disadvantaged families have poorer health. Social gradients in child health are apparent from an early age and (without appropriate interventions) will extend into adulthood and old age. This clearly has major implications for the quality of life and well-being of some groups of children more so than others. It also has longer-term financial and other costs to society in the form of increased healthcare costs, mostly in later life. An understanding of the social and other factors associated with variations in children’s health is clearly an essential input to informed policy development, for the benefit of the children, their families and broader society.

In this paper we illustrate a first concrete example from Growing Up Healthy in Families Across the Globe of the benefits of data harmonisation across national child cohort studies. The paper provides an initial comparative analysis of a few key measures of children’s health in their respective countries, using the Growing Up in Ireland and Growing Up in Scotland studies. Social gradients in children’s birth-weight, health status and body mass index (BMI) are considered at 9/10 months, 3 years and 5 years of age from both cohorts. As well as considering the relative strength of social gradients in child health in both countries the paper illustrates in a very practical way some of the challenges of ex post data harmonisation while underlying its enormous potential in furthering our understanding of important processes in children’s health.

Analysis Across Longitudinal Studies: Approach, Strategy and Initial Findings from the Growing Up Healthy in Families Across the Globe Study

Presenter: Patty Doran, University of Manchester, UK

Co-authors: Chris Cunningham, Massey University, New Zealand; Susan Morton, University of Auckland, New Zealand; El-Shadan (Dan) Tautolo, Auckland University of Technology, New Zealand; James Williams, Economic and Social Research Institute, Ireland; Paul Bradshaw, ScotCen, UK

The primary aim of the Growing Up Healthy in Families Across the Globe project is to investigate the potential for performing harmonising analysis across five longitudinal studies. The studies have been compared in relation to study design, contextual development and conceptual frameworks. Initial stages of the project are complete and have resulted in a combined overview of the context and structure of the five studies. Similarities and differences have been highlighted. The relevant measures and tools used across the five studies have been identified and the potential for combined harmonised analysis will be presented.

Findings suggest that the five studies share similarities in relation to study aims and objectives. However, the studies have been carried out over different periods of time and therefore contextual variation across the studies is evident. Focussing on overlapping themes, key measures used across the five studies have been identified that are either the same (standardised measures) or have the potential for harmonisation on an individual level. Proposed models for harmonised analysis will be presented, with consideration given to the heterogeneity in context across the five studies. This paper will discuss the challenges and tasks involved when considering linking and harmonising the five studies. New analysis from harmonised longitudinal studies could provide a unique view where change over time would be emphasised to determine how and why environments change, which environments are supportive and which are not. The insights will be of interest to all those concerned with child development in contemporary NZ, Ireland, Scotland and other similar countries.

1F SYMPOSIUM

Prospective Qualitative Analyses: Specific Challenges and New Directions (Session 1)

Convenors: Laura Bernardi, Núria Sánchez-Mira, National Centre of Competence in Research LIVES, University of Lausanne, Switzerland

Longitudinal approaches are fundamental for life course studies. Qualitative longitudinal research is often identified with retrospective approaches. Yet a raising number of studies are designed to be prospective in nature. While having doubtless advantages to study continuity and change over time, qualitative prospective studies encounter a number of challenges. One challenge is represented by the notion of a linear temporality structuring social action, which needs to be reconciled with narratives emphasising the role of anticipation and ambivalence. A second challenge is the notion of prospective and retrospective data collection and archive, which needs to be thought from the perspective of the opportunities offered by the analysis of new data like digital data archives. A third challenge emerges with the methodological and ethical issues related to the influence of recursive participation to a prospective study on the participants (expectations raised in vulnerable participations, the content of data collected, etc.). While these are just a few examples, they clearly point out at the need for further reflections on assumptions, concepts and methods currently used in longitudinal life course research.

This symposium puts together seven contributions that specifically address such challenges and offer directions for future prospective qualitative research. They do it on the basis of experience cumulated in empirical research projects in a variety of countries (Spain, Norway, UK, Switzerland). The first session is made of four contributions, which deal more specifically with theoretical and methodological issues: perspectives of time, interlink between turning points, transitions and trajectories, the timescapes archives, and the analytic use of time. The second session is composed of three papers that aim at illustrating challenges and strategies in substantive research covering various areas of investigation like lone parenthood, dual-earner couples and gender relationships, and late career and retirement decision-making.

Perspectives of Time: Methodological Challenges in Qualitative Longitudinal Research

Presenter: Ingeborg Marie Helgeland, Oslo Metropolitan University, Norway

Qualitative longitudinal research involves following and connecting cases over time, studying both changes and continuities. Focus on temporal processes and durational phenomena highlight analyzing changes through time, interpreting informant's narratives through the dimensions and concepts of past, present and future, always embedded in different historical times, contexts and social structures. This includes a heightened awareness of the here and now, the presence, both in the interview situation, and in analyzing the empirical material. To have a sensible and reflexive presence in the production of knowledge is an important premise, including lifting up ethical questions and dilemmas that emerges through the whole research process. This paper will present reflections on the subject on the basis of George Herbert Mead's discussion of time. The empirical example is a longitudinal study of a group of 85 ethnic Norwegian young people. The participants in the study were recruited through their participation in a state-initiated child welfare program, called "Alternative for imprisonment for young people". The group was explored with four waves from the beginning of 1980ies until 2010, both men and women, from age 12-15, at 18-22, at 28-32 up to around 40-44. The study employed different types of data: criminal register data, surveys, reports and interviews with social workers. However, the main method was qualitative semi structured interviews with young people themselves. The life period studied contained transitions and processes of becoming with many challenges, as drug abuse, delinquency, education, work, cohabitation, and being parents. A central concern was the interplay between the informants and the resources available for them at different times in life and in different contexts. The interviews had focus on both past and present experiences, and their thinking about future possibilities.

Turning Points, Transitions, Trajectories: Re-Thinking the Conceptual Building Blocks for Life Course Research Through Qualitative Longitudinal Research

Presenter: Bren Neale, University of Leeds, UK

Co-authors: Laura Bernardi, Núria Sánchez-Mira, NCCR LIVES, University of Lausanne, Switzerland

The life course, a central organising framework for longitudinal research, is concerned with the flow of human lives: the positions that people inhabit in the life span, their life chances and experiences relative to others, and the dynamics of these processes through the intertwining of biographical, generational and historical time. The study of individual biographies is a central component of life course research. The focus may be on transitions from one state to another, for example, through schooling, parenthood, poverty, ill health or crime. The factors that shape life course transitions are important themes, along with the mechanisms (turning points or critical moments) that mark or trigger change. Longer term trajectories (relating to family or work, for example) are no less important. The intertwining of these varied trajectories and how they influence each other is a key site for investigation. Exactly how biographies are shaped and what kinds of causal mechanisms operate as part of these processes are crucial questions for Qualitative Longitudinal (QL) researchers. Turning points, transitions and trajectories, the conceptual building blocks for life course research, are vital constructs in understanding these issues. A burgeoning literature has debated their meaning and definition, although very few of these accounts draw on all three concepts or explore their complex intersections.

This paper seeks to clarify the interlocking nature of these building blocks, to bring to the fore their fluid, processual nature and, thereby, to fill a gap in the methodological literature. It goes on to illustrate its theoretical propositions by an empirical case study investigating the intersection of professional and family trajectories of lone parents living in the western part of Switzerland. Turning points, transitions and trajectories are understood here as intertwined temporal constructs. In similar vein to the ecological domains identified by Bronfenbrenner, these constructs represent different domains of temporal experience that are nested inside each other, rather like Russian dolls. This suggests the need for research designs that investigate their simultaneous connections and influences.

The Timescapes Archive: Thinking Temporally About Data

Presenter: Kahryn Hughes, University of Leeds, UK

Over the past ten years the challenges presented by the significant changes in the 'data landscape' have been, in part, anticipated in the field of qualitative longitudinal (QL) research. An exemplar of innovation in this field is the Timescapes Archive, a QL repository of research data developed under the Timescapes Study, to support the exploration of methodologies for working with large scale, complex data. International funding streams have been dedicated specifically to the development of new digital archives and infrastructures to store and preserve the wealth of complex data being generated via scholarly research. Data infrastructures and archives have become more complex in both intention and functionality, in order to capture the increasingly diverse range and formats of academic data generated. The creation of these new data archives can be seen as providing 'bigger opportunities' for research, both in the manipulation of data, but more importantly for data reuse that may extend our 'analytical reach'.

However, the growth of new data infrastructures, and the new research possibilities via qualitative secondary analysis (QSA), have had a number of profound consequences for the various relationships between key stakeholders in social sciences research, and how new research is formulated. In particular, these data infrastructures require a temporal reorientation to the 'lifetime' of data, prospectively as well as retrospectively; a reformulation of researchers' status in their research; but also a reconsideration of how data reuse affords new ways of engaging with temporality in data. In this presentation, I will provide an overview of the Timescapes Archive, and consider the implications of data archives and reuse for research design and research relationships. Drawing on examples of my own QSA work, I will also discuss the affordances and limitations of new strategies of engaging with temporality in existing data.

Starting with the Archive: New Directions for Qualitative Longitudinal Research

Presenter: Rachel Thomson, University of Sussex, UK

Longitudinal studies disrupt the taken for granted temporalities of modern social science that rely on sequences of beginnings, middles and ends. Central to both qualitative and quantitative approaches to longitudinal studies is the idea of creating data sets that are an indefinite 'resource' for further analysis by researchers who may include but extend beyond the original research team. In a qualitative tradition this has created a real challenge, unsettling many of the working practices and values of the research community that rely on the research relationship between participant and primary researcher as well as the extending the kind of temporal horizons that have shaped negotiations around the practicalities and ethics of reporting on this data. In Natasha Mauthner's words, we find ourselves making promises that we do not know if we can keep.

In this paper I reflect on twenty years of experience in qualitative longitudinal research practice – a period that has included a transition from analog to digital methods - in the culture in general and within the social science research community in particular. Digital technologies have made it much easier to create, copy, and share documents and this in turn potentially transforms relationships between researchers and researched and between experts and the public. Digital formats also facilitate a scaling up of data sets, data linkage and data mining – all of which have ethical and practical implications for how we understand what we are doing as researchers and how we explain this to participants. Digital documentation, archiving and reuse are now part of the fabric of everyday life, changing expectations of what it might mean to be 'public' and 'private' as well as notions of who can be a researcher. In order to explore these changes, I counterpose my own practice in two qualitative longitudinal projects: the Inventing Adulthoods study (1996-2005) – a QL study that resulted in the unanticipated creation and archiving of a data set and The Researching Everyday Childhoods project (2012-17) which reversed the sequence by prospectively creating an archive in collaboration with participants. By juxtaposing these two studies I hope to both tell the story of how qualitative longitudinal methods have evolved as well as identifying new directions for the methodology. My argument is that 'starting' rather than 'ending' with the archive involves a productive shift in temporal orientation opening new possibilities for the analytic use of time itself as well as potentially remaking the research relationship along more democratic lines. The paper draws on research into methodological innovation in qualitative longitudinal research funded by UK research councils.

1G PAPER SESSION: FAMILY WEALTH

The Young 'Haves' and 'Have-Nots': Young British Adults' Entry to the Housing Market and the Role of Intergenerational Transfer

Ellie Suh, London School of Economics, UK

The problem young British adults experience in entering the housing market has been one of the key policy issues in the UK. The young adults have inherited the 'universal aspiration' of owning a home from the previous generations (Clapham et al. 2014). However, there is a significant affordability issue as house prices have increased faster than wages in real terms in the last two decades. In addition, the post-crisis financial regulations require a higher level of deposit and higher future earnings to borrow against. The current economic circumstances for most young British adults – characterised by a low-wage growth, increasing living costs and unstable employment – have left little room for them to navigate in the saturated housing market (Resolution Foundation 2016). Meanwhile, financial services providers highlight that most first-time buyers have been helped by 'the bank of mum and dad' (HSBC 2014). It implies that wealthy parents enable their children to not only get on the housing ladder but also accumulate their assets from earlier on. This study aims to test the hypothesis, whether having received an inheritance and in-kind transfer, such as gifts and informal loans, enhances young adults to own homes, and if so, to what extent, and how it affects asset-building in the long-run. Four waves of Wealth and Assets Survey (WAS) is used here. WAS offers a nationally representative longitudinal dataset, which follows individuals every two years from 2006/8. The association between individuals' first home ownership and inheritance and in-kind transfers is examined using longitudinal analysis.

Preliminary results indicate that the probability to enter homeownership is substantially higher for individuals who have received an inheritance. Also, it will be further examined whether there is any substantial difference in the timing of entering the housing market between inheritance recipient and non-inheritance recipients using event history analysis.

Does Money Buy Happiness? Associations Between Family Wealth and Levels of Wellbeing of Young Australians

Jenny Chesters, University of Melbourne, Australia

Although generally regarded as more egalitarian than many other Anglophone societies, levels of wealth inequality are quite high in Australia. This is important because levels of wealth inequality are an important factor in social mobility. High levels of wealth provide families with more options in terms of where they can live, the schools their children can attend and, consequently, the peer group and social networks in which their children become embedded. Previous research shows that levels of wellbeing are related to personal wealth with wealthier individuals reporting higher levels of wellbeing than poorer individuals.

However, Relative Deprivation Theory posits that levels of wellbeing are relative in that individuals compare their situation with that of their reference group. Using data collected by the Household, Income and Labour Dynamics in Australia (HILDA) project, I examine the association between levels of family wealth and levels of wellbeing of four cohorts of young Australians aged between 15 and 18 years.

Who Earns the Money Now? The Impact of Husbands' Job Loss on Couples' Careers and Their Subjective Wellbeing

Cathrin Ingensiep, Frederike Esche, University of Hamburg, Germany

Given that unemployment is one of the most challenging and enduring problems faced by western economies, questions concerning the subjective experience of unemployment among couples have recently attracted increasing attention. As documented by previous studies, job loss significantly decreases both partners' life satisfaction in the long-run. Yet, previous findings also demonstrate a substantial degree of heterogeneity. Consequently, some couples face higher (non-)pecuniary costs of unemployment and/or seem to apply better coping strategies.

So far, previous research mainly has focused on unemployment entries and exits as events, thereby largely neglecting both partners' employment pathways. Yet, accounting for the latter is very crucial as

they display couples' reaction towards job loss in order to minimize the costs of unemployment and to reduce potential future insecurities: Hence, depending on economic needs and both partners' resources, couples are assumed to react differently towards job loss. Consequently, in addition to the current employment status, differences in the level of life satisfaction may result from couples' employment pathways following job loss.

Using the longitudinal data of the German Socio-Economic Panel (SOEP: 1984-2016), this paper focusses on the pecuniary consequences of husbands' unemployment. The aim of the paper is twofold. Firstly, applying sequence analysis, it investigates, whether and to what extent husbands' job loss alters both partners' employment trajectories, whilst accounting for several socio-economic aspects. Secondly, applying fixed effects panel regression models, it examines whether the (long-term) impact of unemployment on both partners' life satisfaction varies with the different employment trajectories and hence, with respect to couples' coping strategies previously identified by means of sequences analysis. As the pecuniary as well as non-pecuniary costs of job loss are expected to depend on socially accepted gender role models, analysis are run separately between East and West Germany in a comparative fashion.

Parallel Session 2

2A PAPER SESSION: MOBILITY

Growing up Together/Apart? A Longitudinal Study of Mobility Over the Educational Life Course

Amy Sweet, Richard Harris, David Manley, University of Bristol, UK

There has been substantial discussion in the literature that where you grow up and whether or not you experience social and spatial mobility during childhood has substantial bearing later life achievement.

This paper utilises data from the National Pupil Database (NPD) and a quantitative framework to explore the impact of residential mobility on educational outcomes. Many previous studies of neighbourhood mobility have used point in time measures when studying inequality, which means that an individual's neighbourhood trajectory is overlooked. We follow a single cohort of pupils' over an eleven-year time period to analyse their mobility along with their individual characteristics to provide a clear understanding of who is moving and the impact this has on them in terms of educational attainment. We also use the index of multiple deprivation as a measure of neighbourhood wealth to determine to what extent children are able to 'trade up' in terms of neighbourhood.

Our findings show that moving home has a negative impact on educational attainment compared to those that stay in the same location throughout the educational life cycle. With every additional home move, General Certificate of Secondary Education (GCSE) points score decrease, on average highlighting that the more a young person moves the more this will have a negative impact on their educational attainment.

The data shows that residential mobility impacts all but affects those living in deprived areas more. Those that move between deprived neighbourhoods score on average 66 points less in their GCSE's than those who stay in one of the least deprived neighbourhoods across the educational life course. Those that 'trade up' in terms of quality of neighbourhood still do not achieve the same educational outcomes as their peers who live in a lower deprived neighbourhood throughout their schooling.

Intergenerational Transmission of Educational Aspiration and Educational Status Over Three Generations: Does the Educational Expansion Affect Three Family Generations?

Wolfgang Lauterbach, Fend Helmut, University of Potsdam, Germany

The transmission of educational aspirations in high status families is considered the most important mechanism of the reproduction of educational status. But it is also well known, that politically initiated educational expansion of the school system affects the increase of educational qualifications of children. More children of low educated families get a higher school degree than would be expected without the expansion. What we don't know is, whether the political initiated upgrading has a long lasting effect to the next generation, to their own children. But it is important to know, whether political initiated programs have long lasting effects over more than one generation. Otherwise the political programs have to be improved. To answer this question, we compare families who belong over two generations to the upper educational class with families who experienced an educational upgrading by the educational expansion in the seventies. We ask, whether the third generation, children of families who experienced an upgrading, have the same likelihood to achieve a high educational attainment as children from the upper class with a permanent high educational status. We use the Life Study, a three generation study which was first conducted in 1979 in an urban and a rural area of Western Germany with 12-year-old students.

The study was resumed in 2002 with the now adult participants and again in 2012. At this time the time study included three generations with at least 570 children of the age between 12 and 17 years. Our analysis is based on inter-group comparisons. We use regression models to estimate the effect of the upgrading of generation G2 on their own aspirations for their children, the third generation (G3).

The Role of Field of Study in the Transmission of Socio-Economic Status from Parents to Children: Evidence from the UK and the US

Natasha Codioli-McMaster, UCL Institute of Education, UK

With the expansion of education systems across the world, increasing attention is being paid not only to how vertical differences in levels of education influence the transmission of social standing from parents to children, but also the implications of horizontal stratification within education (Charles & Bradley, 2002; Gerber & Cheung, 2008). Whilst research shows that students are also stratified into subjects by their social background, the patterns of stratification and its consequences are less well understood. This paper aims to address this gap in the literature by comparing the relationship between social background and field of study for graduates in the UK and the US. Although these countries shared many similarities, there were a number of distinctive features, including the timing of students' specialisation into subjects, the ways in which students funded their studies, the rate of expansion of university systems, and the link between background and income in adulthood. My research questions are:

1. How are students stratified by social background in fields of study?
2. To what extent do subject choices within university explain social background differences in later income?

I use two nationally representative longitudinal samples, the British Cohort Study (BCS70) and the National Longitudinal Study of Youth (NLSY79), and estimate differences in field of study by family background using multinomial logistic regression methods. I then measure the implications of field of study in income disparities through quantile regression models.

Results indicate that women in the US whose parents are less educated, and women in the UK who claimed Free School Meals, were more likely to study both more lucrative and typically male-dominated subjects. Whether people grew up without a father in the household was also associated with field of study in the US. In both countries, considering field of study rather than just degree attainment did little to further explain income disparities by parent's education.

The Role of Geographical Mobility in Intergenerational Social Mobility: Life Course Analysis Linking the Scottish Longitudinal Study, Scottish Mental Survey 1947 and 1939 Register Data

Lynne Forrest, Chris Dibben, Zhiqiang Feng, Ian Deary, University of Edinburgh, UK; Frank Popham, University of Glasgow, UK

Introduction: ‘Escalator’ regions enhance the social mobility of those who relocate there. This may be because of the employment opportunities that are offered, or due to particular characteristics of spatially-mobile individuals. We were interested in whether major cities in Scotland, such as Edinburgh, may operate as ‘escalator’ regions. We investigated whether geographical mobility was associated with better social class outcomes in adulthood and, if so, why this might be.

Methods: We used data from Scottish Longitudinal Study members born in 1936, linked to the Scottish Mental Survey 1947 (a 1936 birth cohort with age 11 cognitive ability test scores) and 1939 Register data, to investigate the potential mechanisms of an ‘escalator’ region and whether it is place or person (or perhaps a combination of both) that is important for upward mobility, measured by achieved adult social class using the Cambridge Social Interaction Scale. We examined, using regression modelling, how geographical mobility might impact on social mobility, considering geographical location, childhood social class, cognitive ability and education.

Results: Higher social class in childhood, cognitive ability and educational qualifications were associated with higher social class outcomes in adulthood. The spatially-mobile had higher social class in adulthood than non-movers, although this was dependent on the destination of the move. Movers to Edinburgh were more likely to be in a high adult social class even when personal characteristics were accounted for. Social class outcomes of movers to Glasgow were associated with personal characteristics rather than place. Movement to a major city appeared to be important in maintaining a high social class.

Conclusions: Findings from this study suggest that Scotland’s capital does act as an ‘escalator’ region. Geographical mobility can lead to better social class outcomes in adulthood but both person and place may be important for upward social mobility.

2B PAPER SESSION: FAMILY

Family Resources and Child Bearing Under Different Family Policy Schemes

Sehar Ezdi, Jani Erola, Elina Kilpi-Jakonen, Heta Pöyliö, University of Turku, Finland Global changes in family formation alongside escalated economic uncertainty, high youth unemployment and educational expansion have led to greater interfamilial diversity in the provision of childhood resources: children growing up in intact two parent families with relatively good resources, contrasted with children growing up in single parent families often characterized by low resources. Periodic changes tend to exacerbate these inequalities whereas family policy imperatives may temper their effect. We argue that parents acknowledge these changing circumstances and alter their reproductive behavior accordingly. More specifically, we expect that couples with less socioeconomic resources of their own or of their parents postpone fertility. Especially second births are postponed or forgone entirely if potential parents feel they need to accumulate more socioeconomic resources in order to guarantee adequate opportunities for their children. The compensation provided by different family policy schemes may be especially relevant in overcoming the low socioeconomic resources of the parents or their social origin.

We study the influence of parental resources and compensatory mechanisms on fertility by analyzing the probability and timing of first and second child births from four panel datasets: Finnish register data, UK BHPS (and Understanding society), German SOEP and US PSID. This cross-national comparison includes countries that represent different types of family policy schemes. Additionally, it benefits from panels running long enough to be able to observe periodic and institutional changes from early 1990s to 2010s. Institutional variation is observed through multiple macro indicators: types of parental leave schemes, pre-primary education, tax benefit transfers to families and family allowances. In addition, we take the changing labor market context into account. We expect a direct relationship between family policies and fertility so that more egalitarian or generous family policies would serve as an incentive to boost fertility, and more so for families with low levels of resources.

Qualitative and Quantitative Longitudinal Data to Explore Changes in Reproductive Intentions

Hana Hašková, Kristýna Pospíšilová, Institute of Sociology of the Czech Academy of Sciences, Czech Republic

Two sets of longitudinal data are analysed to explore factors and mechanisms underpinning changes and stability of reproductive intentions of men and women in the Czech Republic over time. Panel data from two waves of the Generation and Gender Survey conducted in the Czech Republic allow the identification of factors that contribute to changes of the reproductive intentions, such as age, level of education, number of children, partnership history and the type of reproductive intention itself. The longitudinal qualitative case study allows the exploration of the mechanisms underpinning changes and stability of reproductive intentions.

The qualitative study involves life stories of 43 men and women who were interviewed in 2004-2006 when being (still) childless/childfree and who are being re-interviewed in 2017-2018 about their reproductive trajectories. The qualitative analysis detected and defined several distinct processes explaining a variety in prolonging childfree and childless periods in one's life, which help to understand a relatively low level of fulfilment of fertility intentions revealed in panel surveys. It also allowed explaining the difference in delaying childbearing between those who grew up before and after 1989 in the Czech Republic. While the concept of the disrupted life-course suits well for a particular group of childless men and women who were in their twenties during the post-1989 transformation of the Eastern Block societies, a concept of emerging adulthood fits the best for the younger ones. This does not mean that the influence of structural inequalities should be underestimated though. Both quantitative and qualitative data show that such inequalities affect not only what people do but also their aspirations.

Desired Fertility and Educational Aspirations: New Evidence from a Context of Rapid Social Change

Melissa Alcaraz, Sarah R. Hayford, The Ohio State University, USA; Jennifer E. Glick, Pennsylvania State University, USA

Adolescent preferences for marriage, childbearing, education, migration, and work predict later outcomes (Barber 2001; Clark et al. 2009; Eccles et al. 2004; Sassler and Schoen 1999; Schoon 2001; Willoughby 2012). These preferences, and the relationship between preferences in different domains, also reflect adolescents' interpretations of the kinds of outcomes that are possible and desirable (Howard et al. 2011). In particular, adolescent goals for work, family, and work-family balance have been used as an indicator of gender norms and institutional structures (Eccles et al. 2004). If desires for more education and more intensive careers are associated with reduced desires for marriage and childbearing, this negative relationship suggests that achievement outside the family is perceived as conflicting with family roles. In contrast, no association or a positive association between goals in the public and private spheres would suggest little perceived conflict between domains. These associations likely vary over time and reflect changes in cultural and societal norms; within contexts, they also likely vary across socioeconomic status, and between men and women.

In this paper, we analyze the relationship between desired educational attainment and desired family size in the Chitwan Valley of Nepal, a context where rapid educational expansion and rapid fertility decline, have dramatically altered the scope of possible life outcomes, especially for girls, but where family roles remain rigidly gendered and women's labor force participation remains low. We draw on data from the Family Migration and Early Life Outcomes (FAMELO) study, a household-based survey of approximately 2000 households, to analyze education and fertility desires in a sample of approximately 1500 boys and girls age 11-17. We will use descriptive and multivariate analyses to assess the correlation between educational and fertility goals; examine variation in this association according to family structure and economic status; and compare associations for boys and girls.

2C PAPER SESSION: SCHOOL

Streaming by “Ability” and Trajectories of Internalizing and Externalizing Problems Through UK Primary School: The Role of Family Income

Alexis Karamanos, Yvonne Kelly, Anne McMunn, Anja Heilmann, University College London, UK; Seeromanie Harding, King's College London, UK

Background: Existing research has yet to explore whether streaming is associated with change in emotional (internalizing) and behavioural (externalizing) problems of children over time; little is also known on whether the relationship between streaming and child socioemotional problems depends on family income.

Methods: Using data from 7139 children from the UK Millennium Cohort Study (at the ages 3, 5, 7 and 11 years) and applying growth curve modelling, this study examined whether streaming predicts both the level and the growth of internalising and externalising problems (measured with the Strengths and Difficulties Questionnaire), while it tested whether such effects vary according to family income.

Results: This study found that streaming overall was associated with a 0.308 (SE 0.097) points increase on the externalising and a 0.197 (SE 0.073) points increase on the internalizing problem scale, at the intercept (age 6 years), regardless of area stratum, gender, verbal cognitive ability, family structure, birth order, season of birth, language spoken at home, regular bedtimes, daily reading to the child by someone in the household at age 3 years, maternal distress, whether school fees paid and family income. Further, there was no effect of streaming on the growth of internalizing and externalising problems. No evidence of differential effects by family socio-economic circumstances was also found, implying that children who were streamed had on average higher internalizing and externalizing problems during primary school than those who were not independent of their position on the family income distribution.

Conclusions: Overall, the findings of this study highlight that streaming, particularly where it begins at a very early age, is likely to have a negative effect on the emotional and behavioural adjustment of children in the UK during primary school. Schools and teachers need to take this into account when planning the ability grouping structures that they adopt.

Conflict from the Start? Inequalities in Teacher-Pupil Relationships in the Early Years of Primary Education

Emer Smyth, Economic and Social Research Institute, Ireland

There is now a large body of research which focuses on the quality of teacher-student relationships. To date, however, this research has largely focused on adolescents with little attention given to the possibility that poor quality relations with teachers may have their origins earlier in the educational career.

This paper draws on data on the infant cohort of the Growing Up in Ireland (GUI) study to examine the nature of teacher-pupil relationships for 5 year old children. Analyses focus on two subscales of the Pianta Teacher-Student Relationship Scale: closeness (e.g. 'I share an affectionate, warm relationship with this child') and conflict (e.g. 'The child and I always seem to be struggling with each other'). Analyses indicate socially structured differences in the quality of teacher-child relationships, even taking account of a wide range of child characteristics before school entry. Teachers report more significantly more positive and less conflictual relationships with female pupils than male pupils. This pattern holds, even taking account of gender differences in socioemotional difficulties at the age of 3 and in the prevalence of disabilities. Children from more middle-class families have more positive relationships with their teachers and experience less conflict with them. Children with disabilities or special educational needs have significantly poorer quality relationships with their teachers, even at this early stage, with lower levels of closeness and higher levels of conflict. Furthermore, teachers rate dispositions and skills more negatively if they have poor quality relations with the child, with variation in relationship quality accounting for much of the gender and social background gap in these outcomes. The findings therefore have implications for our understanding of the social dynamic of early years classrooms and their potential effects on later child outcomes.

An Analysis of Trends in the Socioeconomic Concentration of Private School Attendance in Britain

Golo Henseke, Jake Anders, Francis Green, Morag Henderson, UCL Institute of Education, UK

This paper studies whether there has been a notable evolution over recent decades in the social and economic composition of the children who attend Britain's private schools. Through their social exclusivity, private schools are held to have contributed negatively to social mobility among older generations educated in the 20th century. But with fees having trebled in real terms since 1980, increased income inequality, increased wealth-income ratios, fluctuating public and private means-tested support for fees, and a greater emphasis in public policy on school choice, there may have been changes in the distribution of participation in private schooling. Against this backdrop, drawing on a set of cross-sectional (Family Resource Survey, Living Costs and Food Survey) as well as longitudinal data sources (Next Step, Millennium Cohort Study), our analyses suggest:

1. Participation in private school is concentrated at the very top of the family income distribution; however, even in the top five percent of the income distribution, only a minority attend private school.
2. Nevertheless, just under half of private school families came from families in the top decile of the income distribution with little change in either directions.
3. Between 2004 and 2014, there was no change in the proportion of private school parents who belong to the managerial and professional classes.
4. The cross-sectional income elasticity of participation is nearly zero across most of the income spectrum, but increases at very high incomes. There is little evidence for a monotonic trend either towards greater or lower exclusivity of private school attendance.

2D PAPER SESSION: METHODS

The Effect of Rapport Between Interviewer and Respondent on Data Quality and Attrition

Melany Horsfall, Merijn Eikelenboom, Stasja Draisma, Johannes H. Smit, VU University Medical Centre Amsterdam/GGZ inGeest, Amsterdam, The Netherlands

Background: Rapport between interviewer and respondent is hypothesized to be an important issue in data collection within longitudinal epidemiological research. However, the nature of the association between rapport and data quality indicators is fuzzy. Rapport is often seen as part of estimated interviewer and respondent effects and is not investigated as an independent factor.

In this study we examined 1. the associations between rapport and data quality (missing values, social desirability) at baseline and 2. associations between rapport at baseline and attrition on a self-administered follow-up assessment.

Methods: Data were used from the NESDA study (N=2981, www.nesda.nl). Evaluation questions about the interview experience on pleasantness, tiresomeness and length of the interview were filled out by respondents and interviewers at the end of the baseline assessment. Rapport was defined as the consensus between interviewer and respondents on the interview experience. When full consensus was found, rapport was defined as good-, not reaching full consensus was defined as bad rapport. As data quality indicators we used the number of missing answers and social desirability tendencies on sensitive questions. Attrition at the one year follow up was dichotomized in cooperation and refusals.

Results: Associations of rapport and data quality at baseline are presented. Rapport seems to play a role in data quality although results are inconclusive about the direction. Second, we compared whether good or bad rapport was associated with attrition. Results show an association between good rapport at baseline and less attrition at a one year self-administered follow up assessment.

Conclusion: Rapport seems to play an independent role in data quality aspects in a longitudinal epidemiological study. This finding can be used to create awareness among fieldwork staff by training and guiding interviewers on building good rapport. Information about the rapport that was built during an assessment can also be used to tailor the approach of respondents at follow up measurements and thereby diminishing attrition.

Comparability of the 1958 and 1970 British Birth Cohort Samples with ONS Longitudinal Study Respondents

Gemma Archer, Rachel Stuchbury, Nicola Shelton, University College London, UK

The ONS Longitudinal study (ONS LS) follows a one percent sample of the population of England and Wales using linked census data, from 1971 onwards; the study contains records for over 1.1 million individuals, including data on birth, death, and cancer registrations. The ONS LS is not reliant on voluntary surveys and therefore represents a 'gold-standard' reference population with unparalleled coverage and sample size. We aim to examine whether key socio-demographic characteristics and their associations with general health outcomes in ONS LS samples born in 1958 and 1970 are comparable with the British 1958 (National Childhood Development Study; NCDS) and 1970 (BCS70) birth cohort studies, respectively. Preliminary analysis of the 1970 cohort study members participating in 2012 and those in the ONS LS sample born in 1970 and present in 2011 has shown similarity across a range of key socio-demographic indicators, e.g. sex, occupational social class, marital status, and housing tenure. We extend this comparison to include data from members of the 1958 birth cohort study participating in 2013 and those in the ONS LS sample born in 1958 and present in 2011. In addition, we contrast the magnitude of longitudinal associations between key socio-economic factors and general health outcomes using the ONS LS sample present in 2001 and 2011 with members of the 1958 and 1970 birth cohorts using corresponding time-points.

Reducing Attrition Through a Vital Status Tracing Methodology in Swiss Spinal Cord Injured Patients

Martin Brinkhof, Jonviea D. Chamberlain, Swiss Paraplegic Research, Switzerland

Introduction: Attrition, or loss to follow-up (LTFU), in longitudinal studies can result in selection bias and hinder study validity. Previous research on attrition in chronic disease populations found attrition to be associated with an increased risk of mortality. Spinal cord injuries (SCI) are a chronic disease with evidenced reductions in life expectancy and increased mortality. Given the potential impact of attrition for this population, a comprehensive tracing strategy was undertaken to ascertain and update the vital status (VS) of persons included in the Swiss Spinal Cord Injury (SwiSCI) cohort study.

Methods: Vital status of persons with SCI was updated through medical records of SwiSCI covered specialized rehabilitation centers and tracing through Swiss municipalities. Lost to clinic (LTC) and lost to follow-up (LTFU) were defined as having no available VS information 18 months before the population censoring date (September 30, 2011), with the latter involving additional tracing through one or more municipalities. For some cases, municipalities were contacted directly due to practicality issues. Risk factors for LTFU were assessed using logistic regression, conditional on being LTC.

Results: VS was updated for 3'270 individuals. 1'041 individuals were LTC and required additional tracing through municipalities. Among those with an identified VS (N=889), 336 had died by the cut-off date. Time since LTC and age at SCI were associated with LTFU, while the LTFU declined with age. Stratified analysis suggested an increased risk for LTFU among younger women. For the 1'368 cases traced directly through municipalities, VS could be updated for 75.8% of cases, with 546 (52.7%) deaths.

Conclusion: Results from this study can help to inform the extent of potential LTFU-bias on mortality and will facilitate the correction of mortality and life expectancy estimates in future analyses.

Finally, this effective tracing methodology could be applicable for other chronic disease cohorts to reduce attrition-induced biases.

2E SYMPOSIUM

The Gender Dimension of Longitudinal Research

Convenors: Alessandra Decataldo, Elisabetta Ruspini, University of Milano Bicocca, Italy

Longitudinal research is one of the most promising perspectives to study the differences and similarities between women and men. This for a number of reasons. First of all, the relationship between sex and gender is historically situated. Gender is socially constructed, a result of sociocultural influences: different cultures have constructed different sex/gender systems (Rubin, 1978; West and Zimmerman, 1987). Gender identities are learned by socialization: through gender socialization children are taught how to socially behave in accordance with the gender assigned at birth and based on their biological sex. The formation of a gender identity is thus a micro-process embedded in large-scale social processes: the acquisition of the values, motives, and behaviors viewed as appropriate for girls and boys, women and men may temporally and spatially differ. Starting with these premises, the symposium explores the contribution of longitudinal research to the analysis of gender change from different points of view.

The Use of Longitudinal Data in Gender-Sensitive Research: Theoretical and Methodological Challenges

Presenter: Alessandra Decataldo University of Milano Bicocca, Italy

Co-author: Elisabetta Ruspini, University of Milano Bicocca, Italy

This paper discusses some key issues in using longitudinal data for gender-sensitive research. The use of longitudinal data (both prospective and retrospective) greatly increases the potential of gender-sensitive research – that pays attention to the similarities and the differences between men and women's experiences and viewpoints, and gives equal value to each (Decataldo and Ruspini, 2014). Longitudinal data allow the study of life courses and cohort turnover and make it possible to analyse the duration of social phenomena, to describe individual and family changes over time, and to link individual dynamics with the dynamics of institutions and social structures. However, we must not forget that the use of longitudinal data poses both theoretical and methodological problems. On the one hand, the use of longitudinal data requires a theoretical framework needed to explore the dynamic character of society. On the other hand, the researcher has to cope with the challenges posed by the complex structure of longitudinal data, from the point of view of files and of variables (for example Household Panel Studies). Longitudinal studies are also very expensive both in terms of the money and of the time and energy they require.

Gender Dynamics During Transition to Parenthood: Analysing Qualitative Longitudinal Couple Data

Presenter: Manuela Naldini, University of Turin, Italy

Co-authors: Arianna Santero, Paola Torrioni, University of Turin, Italy

The arrival of the first child changes the equilibrium within the couple and re-negotiation of gender roles. Change and persistence in gender roles during the transition to parenthood is becoming an increasingly fruitful area of research by qualitative studies. Yet there remain several methodological complexity, so that comparative studies on longitudinal qualitative data are rare. The negotiation processes and gender dynamics in highly-educated dual-earner couples with gender-equal orientations are particularly interesting phenomena to be studied in the Italian familialistic context (Keck and Saraceno 2010).

The aims of the paper are: 1) to illustrate how it is possible to reconstruct the negotiation processes and the dynamics of doing and undoing gender around parenthood during the transition to the first child in the Italian context by using an "integrative approach" to the study of gender construction and the perspective of gender as practices (Risman, 2004 and Connel, 1987); 2) to discuss the use of a tool – the couple's synopsis – for handling the longitudinal interview analysis and its potential for comparative analysis. The study is based on 84-depth interviews with 21 dual-earner Italian couples living in Turin and in its surrounding area. The corpus of interviews was subjected to content analysis (Smith, 2000). A double process of analysis was carried out: first, a coding process performed with ATLAS.Ti, Computer Assisted/Aided Qualitative Data Analysis Software (CAQDAS); secondly, construction of a synopsis for each interview, supporting the theory-building process.

The paper discusses three key issues that can be addressed through the synopsis: 1) intersubjectivity; 2) synthesis without losing the richness of longitudinal information; 3) emerging theories. Moreover, the paper will discuss a set of indicators suitable for analysing the mechanisms of "doing gender" or undoing gender in the Italian context and for selecting those institutional factors that lead the couple in unexpected directions.

Widowhood: A Study of Widows and Widowers in Italy

Presenter: Laura Arosio, University of Milano Bicocca, Italy

Widowhood can be defined as the marital status of men and women whose marriage has ended because their spouse died. This condition begins with a period of bereavement, the phase following the death of the spouse and requiring an effort to overcome the pain of loss. Widowhood continues throughout the life course of widowed people, unless they change status again, by a new marriage. The study of widowhood is part of life course studies. The death of the spouse is in fact a transition event that puts an end to the status of married person and introduces into the status of widowed. The new status is linked to norms, roles and role expectations that are different from those associated with the previous position, which widowed people have to socialize.

In this paper we intend to focus on widowhood in Italy. Using the official statistics, we intend to draw the demographic profile of widowed people in Italy. We want to count them, explore their characteristics and compare them to other marital status groups. A special attention will be paid to young widowhood and to gender differences between widows and widowers.

Assessing Wave 1 Non-response Bias in a Longitudinal Study of Older People in Italy: Does Gender Matter?

Presenter: Emanuela Sala, University of Milano-Bicocca, Italy

Co-author: Daniele Zaccaria, Istituto Golgi Cenci, Italy

Longitudinal surveys of older people are very powerful research resources to study social inequalities and monitor older people's health conditions. However, these surveys pose specific methodological challenges. Wave 1 non-response is a very serious issue; when respondents differ from non-respondents on the variables of interest, research findings may not be accurate. There is currently little knowledge on the processes that drive Wave 1 nonresponse. Using a rich set of administrative and survey data from an Italian longitudinal study of older people, we explore the determinants of Wave 1 response. Key findings are that (i) individuals whose partners took part in the survey are nearly four times more likely to participate than those whose partners did not, (ii) older men and women show different response patterns, with widowers and women from deprived areas being less likely to respond, (iii) the main reason for non-response is a lack of interest in the study.

2F SYMPOSIUM

Prospective Qualitative Analyses: Specific Challenges and New Directions (Session 2)

Convenors: Laura Bernardi, Núria Sánchez-Mira, National Centre of Competence in Research LIVES, University of Lausanne, Switzerland

Longitudinal approaches are fundamental for life course studies. Qualitative longitudinal research is often identified with retrospective approaches. Yet a raising number of studies are designed to be prospective in nature. While having doubtless advantages to study continuity and change over time, qualitative prospective studies encounter a number of challenges. One challenge is represented by the notion of a linear temporality structuring social action, which needs to be reconciled with narratives emphasising the role of anticipation and ambivalence. A second challenge is the notion of prospective and retrospective data collection and archive, which needs to be thought from the perspective of the opportunities offered by the analysis of new data like digital data archives. A third challenge emerges with the methodological and ethical issues related to the influence of recursive participation to a prospective study on the participants (expectations raised in vulnerable participations, the content of data collected, etc.).

While these are just a few examples, they clearly point out at the need for further reflections on assumptions, concepts and methods currently used in longitudinal life course research. This symposium puts together seven contributions that specifically address such challenges and offer directions for future prospective qualitative research. They do it on the basis of experience cumulated in empirical research projects in a variety of countries (Spain, Norway, UK, Switzerland). The first session is made of four contributions, which deal more specifically with theoretical and methodological issues: perspectives of time, interlink between turning points, transitions and trajectories, the timescapes archives, and the analytic use of time. The second session is composed of three papers that aim at illustrating challenges and strategies in substantive research covering various areas of investigation like lone parenthood, dual-earner couples and gender relationships, and late career and retirement decision-making.

How Can Qualitative Longitudinal Methods Improve Our Understanding of Vulnerability? A Study on Lone Parenthood

Presenter: Ornella Larenza, National Centre of Competence in Research LIVES, University of Lausanne, Switzerland

Investigating vulnerability implies studying a dynamic of stress and resources unfolding over time, affecting multiple life domains and involving individuals in relation to the context they live in. This contribution will show how longitudinal qualitative research is better armed than longitudinal quantitative research or qualitative research tout court to investigate vulnerability using the case of lone parenthood.

This work is carried out in the frame of a Swiss National Science Foundation project on lone parenthood including a qualitative panel. Two waves of semi-structured interviews were conducted with a group of 40 lone parents (38 mothers and 2 fathers) with full custody of their children and living in the Cantons of Vaud and Geneva in 2012/2013 and 33 lone parents in 2015. A qualitative sequence analysis of lone parents' vulnerability process was performed on selected stories and shed light on the merits of QL research in exploring vulnerability.

The longitudinal design allowed to collect retrospective biographical data and prospective data both on how the transition to lone parenthood was faced and on lone parent's future prospects. Through people's direct witness, the qualitative methodology allowed to elicit spill-over effects across apparently unrelated life domains. Furthermore, it allowed to explore lone parenthood in its context and especially to explore the role of relationships with significant others, social norms and social policies in shaping lone parents' vulnerability process. Using the example of the transition to lone parenthood this work makes the case for a larger use of prospective QL research to explore individuals' vulnerability in many other crucial transitions of the life course. Ultimately, such knowledge could inform social policy design in many fields.

Analysing and Predicting Couple's Life Courses: (Un)Doing Gender in Dual-Earner Couples in Spain

Presenter: Marta, Institut d'Etudes Politiques de Paris (Sciences Po), France

Co-authors: María José González, Universitat Pompeu Fabra, Departament de Ciències Polítiques i Socials, Spain; Teresa Jurado-Guerrero, Universidad Nacional de Educación a Distancia, Spain

This paper presents three different examples about how to analyse in-depth over-time between-couple and within-couple differences. Ten researchers collaborated in interviewing 68 dual-earner couples in 2011 and 2013 in four different Spanish towns (Barcelona, Madrid, Seville and Pamplona), in coding the interviews, systematizing the socio-demographic information and in analysing the transcriptions according to different topics. The collaborative work with Atlas.ti and specific studies in groups of three to four researchers were the best ways to analyse these national longitudinal couple data.

First, we present an in-depth analysis of five heteronormative couples that focuses on the couple-specific experiences and looks at "her" and "his" discourses concerning their worklife balance and the division of domestic and care work between the spouses. All five women in these couples had expressed egalitarian attitudes towards parenting and domestic chores. Second, we describe the transition of 57 men to first-time fatherhood and focuses on the individual, couple and context factors in order to explain the classification of fathers into occasional carers, helpers and involved carers. Third, we divide the study into

two analyses: wave one (couple-data of 68 couples of the first wave were analysed to identify 31 couples sharing routine domestic work equally (maximum 60 % she and at least 40% he)), and wave two (31 couple transcriptions studied in-depth to identify patterns and justifications and cross-checked with some parts of the individual interviews). The Qualitative Comparative Analysis (QCA) contributed to explain how different configurations lead to equal-sharing of domestic work, and understand why some couples were able to maintain a 60/40 division of domestic work, while others couples traditionalized.

Three-Wave Qualitative Panel Study on Late Career Decision-Making

Presenter: Trude Furunes, Norwegian School of Hotel Management, University of Stavanger, Norway
Late career decision-making is regarded as a process of reflecting and deciding on whether to continue in the current job, change employer, be self-employed, or quit one's career when approaching retirement. Previous research demonstrates a noticeable heterogeneity of findings, with multiple pre- and post-retirement pathways. A vast majority of studies are quantitative, cross-sectional, and provide little information on the retirement process. Tapping into older workers' late career decision-making processes this study comprise baseline one-hour interviews with 42 older workers, and two follow-up interviews, one year apart. Most interviewees were positive to continue working, learning demands were appreciated, and retirement decisions were postponed. Only a few changed their opinions completely, and wanted to retire earlier than estimated at baseline, thus the study provides new information on the retirement process.

The study provides very rich data, comprising 1x3 hours interviews, providing several options for analysis and dissemination. First dissemination was a baseline description followed by five rich narratives, showing how career and retirement decisions emerge and mature over the years prior to retirement. A number of challenges arose, both during data collection and dissemination: 1) some dropped out of the study when they retired, 2) data collection was time consuming, including travelling and long interviews, 3) the reviewers of the first publication were not familiar with longitudinal qualitative studies, and thus required that a quantification of baseline results were made, and 4) taking part in the study and being probed about late career planning and retirement may have had an effect on the data, in that, for those who had not started thinking of retirement, the baseline interview may have triggered this process to start earlier than it normally would. This study contributes to the understanding of the complex nature of older workers' late careers, and extends knowledge on the retirement decision process.

2G SYMPOSIUM

Growing Up in a Longitudinal Study: Engaging Respondents Through the Life of the Study

Convenor and Chair: Andrew Cadogan-Cowper, Australian Bureau of Statistics, Australia

Maintaining robust samples is a universal challenge for all longitudinal studies. Studies which originate with the recruitment of parents but have a child focus have additional demands with regard to retaining young people in the study as they mature. This symposium reflects on the specific complications faced by those tasked with ensuring that as children move through adolescence and young adulthood that they understand the value of the study their parents signed up to. Topics covered include using the 18th birthday as an important engagement milestone; the effectiveness of financial incentives; differing contact methods; and the use of social media to locate lost respondents.

Growing Up in a Longitudinal Study: Engaging Young People as They Become Adults

Presenter: Andrew Cadogan-Cowper, Australian Bureau of Statistics, Australia

The Longitudinal Study of Australian Children (LSAC), also known as Growing Up in Australia, commenced in 2004 when parents of approximately 5,000 babies and 5,000 4-5 year olds were recruited to the study. Now in 2018, the older cohort has turned 18. Our challenge is to keep these new adults engaged enough to remain in a study that their parents agreed to take part in 14 years ago.

The key activity undertaken by LSAC was the 18th birthday exercise where we attempted to make contact with our entire older cohort around their 18th birthday. At this call we confirmed all contact information which served as a tracking exercise prior to the next wave. As well we starting educating the cohort about the future of the study and in particular, the changes to the Wave 8 interview - where the young adult is

interviewed by themselves for the first time, and the introduction of an online component prior to the interviewer visit to the home. We also mailed out of a card, a certificate of participation and a gift card.

This session presents:

- the challenges of undertaking such an exercise, both logistical and cost;
- the processes involved in attempting contact, and follow up of non-contacts;
- the response to the exercise;
- the reaction of respondents;
- the initial response to Wave 8 of those contacted, those who refused, and those who were non-contacts; and
- the impact on response to the next wave interview.

Using Targeting of Financial Incentives to Address Differential Attrition: Experiences from the Growing Up in Scotland Study

Presenter: Line Knudsen, ScotCen Social Research, UK

Co-authors: Paul Bradshaw, Eilidh Currie, ScotCen Social Research, UK

Since its inception in 2005 the Growing Up in Scotland study (GUS) has tracked the lives of more than 10,000 children and families living in Scotland. On GUS, like on most other cohort studies, differential attrition is a key concern. Families living in disadvantaged circumstances are less likely to take part and, over time, this has meant that the size of important subgroups have disproportionately diminished.

In 2015 a trial of targeted financial incentives was included as part of the third sweep of data collection with the youngest GUS birth cohort. In this trial, a randomly selected group of single parents, teenage mothers and those living in the most deprived areas were offered a financial incentive for taking part and their response was compared with that of a control group. Following this trial, a revised targeted financial incentives strategy was implemented for the oldest GUS birth cohort as part of the 9th sweep of face-to-face fieldwork which began in early 2016. This presentation will outline and discuss preliminary results of response analysis which considers the effectiveness of the targeted financial incentives strategy implemented in 2016. Growing Up in Scotland is a longitudinal birth cohort study funded by the Scottish Government and undertaken by ScotCen Social Research. Study website: growingupinscotland.org.uk

Utilising Different Modalities of Data Collection to Engage Participants During Funding Uncertainty. Comparisons of Retention Using Direct and Indirect Contacts and Impact on Research Objectives

Convenor: Susan Morton, University of Auckland, New Zealand

Growing Up in New Zealand has followed the lives of 6853 children from before their birth utilising multiple modes of data collection to document trajectories of development for contemporary New Zealand children. From pregnancy, significant data collection waves have been undertaken in the homes of the children and have been conducted primarily using Computer Assisted Personal Interviews (CAPI). Between main data collections contact has been maintained with participants via Computerised Telephone Interviews (CATI) with occasional email and text messaging. Over the first five years of the children's lives there were five major CAPI data collections and the completion rate at each has been over 90% of the baseline cohort, with successful tracking of over 97% of the cohort throughout (less than 3% total opt-outs). However, since 2012 the sustainability of the cohort has been challenged because of funding uncertainties. Therefore, in 2014 we undertook the first electronic data collection wave with the cohort when the children were approximately 72 months old, as a way to continue to engage with the cohort at a key time point in the children's lives and more cost-effectively than a face to face home interview.

In this presentation, we report on the retention rates for this wave (approximately 84%), the resources utilised (greater than expected) and the impact on the fidelity and completeness of the information able to be obtained. We consider the advantages and disadvantages of each mode of data collection within a well-established, ethnically diverse cohort that has previously had extremely high engagement and retention over time. In particular we consider the impact of different modes on the ability to address the overarching research objectives of the study.

Engaging Respondents Using the Internet and Social Media: The Experiences of the Millennium Cohort Study and Next Steps

Presenter: Emily Gilbert, UCL Institute of Education, UK

Co-author: Lisa Calderwood, UCL Institute of Education, UK

The increase in internet and social media use amongst teenagers and young adults offers a new way to engage members of a cohort study. This presentation will discuss the different ways the internet, Facebook and Twitter have been used for engaging respondents in the Millennium Cohort Study (MCS) and Next Steps. The internet and social media are platforms that these age groups already use to receive their news and other updates. As such, it offers a way to get in touch with respondents who studies may not be able to reach by other means. Social media also allows us to update cohort members much more frequently than traditional postal mailings. Regular campaigns are run on the studies' social media platforms to highlight recent findings and draw cohort members' attention to study news, driving traffic to the study websites. We will discuss the different approaches and challenges specific to each of the studies, and reflect on the successes and limitations of using the internet and social media as a participant engagement tool, using insights from the participant website and social media traffic, and summarise the lessons learned.

Parallel Session 3

3A PAPER SESSION: HEALTH

Cross-Lagged Associations Between Psychosocial Work Characteristics and Depressive Symptoms: Dynamic Panel Model with Fixed Effects

Linda Magnusson Hanson, Julia Åhlin, Stockholm University, Sweden

Background: Depression is a major public health concern. A number of psychosocial work characteristics have been associated with depressive symptoms. However, limitations in previous studies raises some doubt as to whether the associations are causal. In addition, it is still unclear if depressive symptoms also affect the experience of psychosocial working conditions. The aim of this study was to examine bidirectional relationships between psychosocial working conditions and depressive symptoms, and simultaneously control for time stable individual characteristics.

Methods: We included 7183 subjects in the Swedish Longitudinal Occupational Survey of Health, who completed biennial questionnaires on perceived job demands, control, social support, effort, rewards and procedural justice, as well as depressive symptoms in four waves during 2010- 2016. We applied dynamic panel models with fixed effects, allowing to assess the influence of lagged predictors and simultaneously adjust for time-stable characteristics of the individual such as personality and genetics. The panel model included reciprocal paths between independent and dependent variables as well as lagged values of both dependent and independent variables.

Results: Preliminary results based on 2170 individuals with complete data in all waves, suggest a reverse association between depressive symptoms and job demands, indicating that more depressive symptoms predicted less demands (β coefficient -0.01, 95% CI -0.01 to -0.00) two years later. In addition, higher job demands and efforts were contemporaneously associated with more depressive symptoms, while more social support, rewards and procedural justice were contemporaneously associated with less symptoms.

Conclusion: Our results suggest that the effects of these psychosocial work stressors on depressive symptoms may mainly be contemporaneous. A two-year time lag may be too long to detect these effects which might be more short-term.

Work-Family Trajectories in Young Adulthood and Mental Health of Finnish Women

Karen van Hedel, Mikko Myrskylä, Max Planck Institute for Demographic Research, Germany;
Heta Moustgaard, Pekka Martikainen, University of Helsinki, Finland

The aim of this study is to investigate whether specific work-family typologies are associated with worse mental health among young adults, using longitudinal Finnish registry data. We use sequence analysis to construct work-family typologies and a logistic regression model to study the association of these typologies with mental health. Panel data from an 11% random sample of the population residing in Finland for the years 1995 to 2007 was used. This sample was linked on an individual level to data from other official registries, such as the labor market data file and medication records. For now, the results are based on a sample of women aged 20 in 1995 (N=3466), who had data available for all years between 1995 and 2007 (N=3159). Mental health was measured yearly based on psychotropic medication purchases (including antidepressants, antipsychotics, antimanic agents, and anxiolytic/sedative/hypnotic medication), and considered as a binary outcome; i.e. whether or not an individual purchased at least one prescription of psychotropic medication in 2007. Work-family combinations were based on partnership status (being married or cohabiting), parenthood status (having at least one child under the age of 18 in the family) and employment status (being employed). Sequence analysis, a methodological framework to analyze trajectories and processes, was used to identify common work-family typologies in our data. For each individual, we constructed a work-family trajectory based on the eight possible work-family combinations between ages 20 and 33 (covering the years 1995 to 2007). Of the 3159 women in our sample, 2955 women (93.5%) had distinct work-family trajectories. Sequence analysis suggested seven distinct clusters, of which employed women with a partner who had children in their late 20s/early 30s were best off in terms of their psychotropic medication purchases, but women without a partner, children or employment were worst off.

Work-Family Trajectories and Depression at Older Age in German Men and Women

Miriam Engels, Simone Weyers, Nico Dragano, Morten Wahrendorf, Heinrich-Heine-University, Germany;
Susanne Moebus, Karl-Heinz Jöckel, Raimund Erbel, University of Duisburg-Essen, Germany; Beate Pesch,
Thomas Behrens, Institute of the Ruhr-Universität Bochum, Germany

Objectives: The paper identifies types of work-family trajectories of German men and women and investigates their links with depression at older age.

Methods: We use data from the Heinz Nixdorf Recall study, with retrospective information on employment histories and parenthood between age 20 and 50 (1.482 men and 1.537 women, born between 1925 and 1955). We apply sequence analysis and group trajectories into six clusters for each gender. We test their association with two alternative measures of depression: self-reported depressive symptoms and intake of antidepressant medication. Multivariate models exclude participants with early life depression and adjust for age, marital status, education, and income.

Results: We find clear differences of work-family trajectories between men and women, where women's trajectories are generally more diverse, and include family leaves and returns into full or part-time work. For men, work-family trajectories are neither related to depressive symptoms nor to medication intake. In contrast, women who returned into fulltime work after family leave show more depression than those who return to part-time work, both in terms of depressive symptoms ($b=1.30$, CI 95%: 0.10-2.50) and antidepressant medications (OR=1.78; CI 95%: 1.06-3.01).

Discussion: Our findings show gender differences in terms of work-family trajectories and in terms of their consequences to mental health. In particular, findings suggest that mothers who return to full-time work are a vulnerable group for depression at older ages. This contrasts previous findings from other European countries suggesting that the socio-cultural context plays an important role.

Notes: b = unstandardized regression coefficient, OR= odds ratio

The Impact of Childbearing Histories on Subjective Well-Being in a High-Fertility, Low-Income Context

Sarah Hayford, Ohio State University, USA; Victor Agadjanian, University of Kansas, USA

How many children people have is associated with happiness and well-being. The nature of this association varies over the life course and across individuals. For example, a study using Danish twin pairs found that having children was associated with increased happiness for women in the short term, but childbearing history was not related to happiness among women age 50-70 (Kohler, Behrman, and Skytthe 2005). In Britain and Germany, subjective well-being increases after a birth, and this increase is larger for older parents (Myrskylä and Margolis 2014).

The relationship between childbearing and subjective well-being varies across countries as well. Comparative analyses using data from the World Values Survey suggest that the positive association between childbearing and happiness is stronger in countries where parents depend on children for support in old age (Margolis and Myrskylä 2011). This relationship could potentially explain continued high birth rates in some contexts, particularly in sub-Saharan Africa. However, very few studies have studied the relationship between childbearing and happiness in these contexts (but see Conzo, Fuochi, and Mencarini 2017 for Ethiopia). As a result, there is limited understanding of the mechanisms through which childbearing shapes well-being in high-fertility contexts or how variation in this relationship.

In this paper, we begin to fill this gap by analyzing fertility and life satisfaction among women at the end of their childbearing years in rural southern Mozambique. We draw on five waves of survey data with rich measures in multiple domains to examine how fertility histories are associated with subjective well-being. We distinguish between wanted and unwanted births and consider child mortality as well as living children. We also examine the potential mediating roles of household economic status, physical health, and co-residence with children, a relevant factor in this context where marital instability is high and children often remain with fathers.

Family Pathways and Later Life Subjective Health Across 22 European Nations

Mioara Zoutewelle-Terovan, Joanne Muller, Netherlands Interdisciplinary Demographic Institute, Netherlands

Family patterns are diverse, and, next to the traditional pattern (marriage followed by parenthood), various less traditional family markers may define the life of an individual (e.g. co-habitation, postponement of marriage and parenthood, out of wedlock childbearing, single parenthood). Research aiming to explain older age outcomes must consider the complexity of family formation history. Following a life-course perspective, this study analyses the diversity in family pathways (simultaneously integrating elements such as occurrence, timing, quantum, and ordering of union formation and parenthood), and their consequences on subjective health in later life. In addition, it investigates whether the relationship between family pathways and health vary across European nations. The analyses use micro-level data for 22 countries (Bulgaria, Russia, Georgia, Germany, France, Hungary, Italy, Netherlands, Romania, Norway, Austria, Estonia, Belgium, Lithuania, Poland, Czech Republic, Sweden, Spain, Denmark, Greece, Switzerland, UK) from multiple sources: British Household Panel Survey in Understanding Society data (BHPS-US), The Survey of Health, Ageing and Retirement in Europe (SHARE) and the Generations and Gender Survey (GGS). The sample comprises a total of 102,837 individuals aged 50 or more. Family pathways in young- and mid-adulthood will be analyzed by means of sequence analysis. The linkage between family pathways and later life subjective health will be analyzed using multilevel modeling.

Preliminary analyses show that individuals in a living together relationship (cohabitation or marriage) report better health levels compared to individuals who never engaged in such relationships. However, childless individuals report poorer health compared to parents. Results also show that health deteriorates when individuals engage in multiple romantic unions or have more children. Also, early transitions to living together relationships and parenthood are associated with poorer health. These preliminary analyses also reveal that the effects investigated vary across nations.

3B PAPER SESSION: WORK

Life Course Partnership and Employment Trajectories and Mid-Life Parental Caregiving: Prospective Findings from a British Birth Cohort Study

Anne McMunn, Rebecca Lacey, University College London, UK; Elizabeth Breeze, University of Southampton, UK

We investigate whether work and partnership life courses predict individuals' likelihood of providing care to a parent or parent-in-law in mid-life, and whether these associations differ by gender or early life socioeconomic circumstances. We used annual work and partnership information between ages 16-54 years in the National Child Development Study (1958 birth cohort). Information on caregiving and covariates were taken from age 55, apart from early socioeconomic circumstances taken from age 16 (father's social class) and 23 (educational attainment). We used an empirical sequence analysis, and cluster analysis to determine life course groups separately for work and partnership. Multivariate logistic regression was used to investigate whether sequence clusters and the number and length of work and partnership states were significantly associated with providing care to a parent or parent-in-law.

Sequence analysis resulted in four work life courses for men and nine for women, and five partnership life courses for men and three for women. In fully-adjusted models stronger ties to paid work were associated with a greater likelihood, and being separated/divorced a lower likelihood, of providing care to a parent for men, with the likelihood of providing care to a parent or parent-in-law increasing with increasing number of years in marriage. For women, number of years spent in part-time employment was positively associated with a greater likelihood of providing care to a parent while remaining unmarried was associated with a decreased likelihood. Number of years in marriage was associated with more hours spent caring for a parent per week amongst carers for women. Women who entered marriage later in the life course were less likely to provide care to a parent-in-law than women who entered marriage earlier. These associations did not differ by educational attainment or childhood social class for women or men.

Women's Labour Market Entry and First Marriage: A Comparison Between East and West Germany

Jascha Dräger, University of Mannheim, Germany; Nora Skopek, GESIS - Leibniz Institute for the Social Sciences, Germany

Economic independence, mostly achieved through labour market participation, is a key factor for family formation. Most people are not able or not willing to marry before economic independence is secured. During times of the "male breadwinner model", women's timing of first marriage has largely been a function of their later husbands' economic characteristics. Changes in women's educational attainment and labour market behaviour but also in men's labour market career in most industrialized countries, suggest that nowadays, marriage timing is affected also by women's economic characteristics. Making use of the data from the National Educational Panel Study (NEPS), we assess the association between labour market entry and timing of first marriage for women born in Germany between 1944 and 1988. We contribute to current research by taking into account the specific socio-historical context of the Federal Republic of Germany (FRG) and the former German Democratic Republic (GDR), comparing a (still) strong male breadwinner model in a social market economy in West Germany to a (still) universal breadwinner model in a prior state socialist system in East Germany. Applying methods of event-history analysis, our results indicate that entry into the labour market accelerates women's entry into first marriage. However, there exist large differences by birth cohort and between East and West Germany. For West Germany, there is a significant accelerating effect of labour market entry for most birth cohorts. For East Germany, no significant effect exists for cohorts, whose labour market entry happened before the reunification. After the reunification, results for East Germany assimilate to West Germany.

Mechanisms of Selection: The Exclusion of Adolescents with a Migrant Background in the School-to-Work-Transition

Sophie Krug von Nidda, Paderborn University, Germany

In this paper we analyse the role of employers as gatekeepers and the mechanisms leading to the exclusion of adolescents with a migrant background from apprenticeship training. We use a unique dataset combining panel data of 1760 adolescents with interview data of 500 employers. Our study can serve as a model for other countries as the entry into apprenticeship training in Germany is comparable to other entry labour markets. For migrant adolescents the risk of being excluded from apprenticeship training is twofold. Their chance of leaving school with low formal qualification is higher than that of native pupils. However, even if they possess comparable qualifications to their German counterparts, they are often excluded from apprenticeship training directly after school. Nevertheless, society as a whole would tremendously benefit from the integration of these adolescents into apprenticeship training. First, it can mitigate the problem of skill shortage on the German labour market. Second, it is crucial for the social integration process as a whole. This aspect has become particularly important due to the large number of young refugees who came to Germany over the last years.

We concentrate on the mechanisms structuring the recruitment process, since we expect them to lead to a systematic exclusion of migrant adolescents. Theoretically, the analysis is based on the conventional approach of Imdorf who argues that companies consist of multiple worlds. When hiring apprentices with a migrant background, employers might anticipate negative reactions from customers in the market world or conflicts among the team members in the domestic world. Therefore, formal education may not be the most important selection criterion. Our integrated dataset constitutes a unique opportunity to further test Imdorf's qualitative analysis. We apply logistic regression methods to understand under which conditions recruitment processes contribute to the exclusion of migrant adolescents from apprenticeship training.

Exploring Alternative Measures of Doctoral Underemployment

Karen Grigorian, Thomas B. Hoffer, Tafaya Ransom, Lance A. Selfa, NORC at the University of Chicago, USA

A recent analysis of the OECD Survey of Adult Skills finds underemployment amongst graduate degree (Bachelor's and higher) holders is prevalent across many OECD nations and argues that monitoring underemployment is useful for assessing and adjusting the graduate labor market (Green and Henseke, 2016). Underemployment definitions vary and determining a single definition presents a challenge when one is trying to provide insight into the graduate labor market that satisfies the different viewpoints of academic institutions, government policy makers, and students. The U.S. Survey of Doctorate Recipients (SDR) data program provides a unique opportunity to assess alternate definitions at the highest degree level. In SDR, the primary measure of underemployment is the involuntarily-out-of-field rate defined as the percentage doctorate recipients who reported their principal job was not related to their doctoral degree at least partially because a job in their doctoral field was not available. Alternative measures using the SDR data include working out of field for any reason, employment in an occupation not requiring at least Bachelor's level expertise, involuntarily working part-time, working in a postdoc position beyond 5 years or because other employment is unavailable, and working in an occupation not aligned with the doctorate field. We compare these measures at three time points (2015, 2010, and 2001) by doctoral field and demographic and occupational characteristics. We conclude with suggestions for which metrics are most informative for the various data users. Conducted since 1973, SDR provides demographic, education, and career history information from individuals with a U.S. research doctoral degree in a science, engineering, or health field. The SDR is sponsored by the National Science Foundation and by the National Institutes of Health.

3C PAPER SESSION: LATER LIFE

Future Projection of Cognitive Impairment Prevalence in Japan Using a Microsimulation Model

Megumi Kasajima, Tetsuya Iwamoto, Hideki Hashimoto, University of Tokyo School of Public Health, Japan
Background: With a rapid population aging, social burden of cognitive impairment is expected to become a major problem in Japan, though currently available epidemiological evidences are limited. There already existed several models for future projection of chronic conditions, such as US Future Elderly Model and its application to Japanese data (Chen, et al. (2016)), based on self-reported conditions. In the current study, we purported to revise the model using a larger nationally representative data in pseudo panel analysis frame, and to incorporate objectively measured cognitive function to estimate the likelihood of becoming cognitive impairment in the projection model.

Methods: We calculated age-sex specific health transitions across 14 chronic comorbidity statuses using the governmental microdata as described elsewhere (Kasajima, et al. 2017). Based on the estimated probability, we projected the prevalence of these chronic conditions by use of Markov model. The likelihood of cognitive impairment as defined by functional measurement was regressed on chronic conditions and demographics, using data from the Japan Study of Aging and Retirement. Estimated likelihood was extrapolated to estimate the number of cognitive impairment for the projected numbers of chronic conditions as of 2034.

Results: The likelihood of cognitive impairment was significantly regressed on age, gender, stroke, diabetes conditions, subjective poor health, and impairment in activities of daily life. Based on the developed model, we forecasted a fewer numbers of future prevalence of dementia and mild cognitive impairment compared to the governmental projection.

Conclusions: Our simulation indicated that the future elderly in Japan is less vulnerable to cognitive impairment, presumably due to decreased disease burden of stroke and overall functional improvement compared to the current elderly population. The microsimulation will enable to identify high risk population to efficiently target policy intervention, and to simulate policy impact to reduce the social burden of cognitive impairment among the elderly.

Does Neighbourhood Socioeconomic Inequality Affect Mental Health Among Older Adults?

Keishia Taylor, Stephen Jivraj, Mai Stafford, University College London, UK

Socioeconomic inequality at a national level and deprivation at individual and neighbourhood levels are all associated with poor physical and mental health outcomes. However, consensus regarding the effects of neighbourhood socioeconomic inequality has not yet been reached. Neighbourhood inequality may result in worse mental health (for example, due to reduced social capital or harmful comparisons to others) or better mental health (for example, due to improved services for the most disadvantaged). Older people are more likely to perform social interactions within their neighbourhood and to have accumulated exposure to neighbourhood factors during the life course, so may be more vulnerable to neighbourhood effects than younger people. This study tests the relationship between neighbourhood wealth inequality and change in mental health, independently of individual and neighbourhood deprivation.

Participants from the English Longitudinal Study of Ageing (ELSA) provide data on mental health (using the Center for Epidemiologic Studies Depression Scale (CES-D)) from 2002- 2015 and individual-level covariates at wave 1. Neighbourhoods are defined using Census middle super output areas (MSOAs) containing 7,000 residents on average. Neighbourhood wealth inequality is measured at each wave by Gini coefficients derived from data on house price sales, a key marker of wealth in older people. Neighbourhood deprivation is operationalised by deriving aggregate Townsend Deprivation Index scores from 2001 and 2011 census data. A random effects multilevel approach is used to model effects of neighbourhood inequality on change in depressive symptoms of adults aged 50 and older. This longitudinal study examines whether neighbourhood wealth inequality contributes to depressive symptoms in older adults. This project ultimately aims to add to evidence regarding neighbourhood mixing, with implications for social housing and services to assist older people living in deprivation.

Perceived Neighbourhood Social Cohesion on Depressive Symptom Trajectories in Older Adults: A Twelve-Year Prospective Cohort Study

Milagros Ruiz, Shaun Scholes, Martin Bobak, University College London, UK

Purpose: We test the hypothesis that older adults with low levels of perceived neighbourhood social cohesion exhibit steeper trajectories of depressive symptoms than those who perceive high levels of neighbourhood social cohesion.

Methods: We analysed data on 11,037 participants aged 50+ from the English Longitudinal Study of Ageing. Perceived social cohesion (PSC) of neighbourhoods was assessed at baseline (2002/3). Depressive symptoms were measured using CES-D scores (ranging from 0-8) on 7 occasions from baseline to 2014/5. Trajectories of depressive symptoms by baseline PSC were estimated using latent growth modelling.

Results: Low PSC was linked with elevated depressive symptoms at both baseline and follow-up. At baseline, adults with low PSC had more depressive symptoms than age counterparts with high PSC. Consistent with the U-shaped trajectory of depressive symptoms by age, the association between PSC tertile and changes in depressive symptoms over follow-up was modified by age. Fifty-year old participants with low PSC reported an average decrease in CES-D score from 0.66 to 0.54 during the 12-year follow up, compared to a change from 0.47 to 0.34 for age counterparts with high PSC. By contrast, in persons aged 85 at baseline, the mean CES-D score increased from 1.09 to 1.30 for participants with high PSC, while the rise was greater (from 1.49 to 2.03) among those with low PSC. The main effects and interaction of PSC with age were robust to adjustment for socio-economic and health characteristics.

Conclusions: The differences in depressive symptom trajectories by PSC appear to widen at older ages.

Personality Change in the Pre-Clinical Phase of Alzheimer's Disease? A 36 Years Longitudinal Study

Antonio Terracciano, Angelina Sutin, Florida State University, USA

Change in behavior and personality are one criterion for the diagnosis of dementia. Retrospective studies suggest large changes in personality in people who develop dementia, but prospective studies are needed to determine whether such changes begin before the clinical onset of the disease. In a cohort of older adults (N = 2046) followed for up to 36 years, we tested whether there are increases in neuroticism and declines in conscientiousness that could be characterized as early sign of dementia. With multilevel modeling analyses we found that individuals who later developed dementia scored higher on neuroticism and lower on conscientiousness at baseline. However, we found no evidence of significant change in self-rated personality before the onset of mild cognitive impairment or clinical dementia. These findings provide evidence against the reverse causality hypothesis and strengthen evidence for personality traits as a risk factor for dementia.

Life-Course Predictors of Limiting Long-Term Illness in Later Life: Linking the Scottish Mental Survey 1947 to Administrative Data

Matthew Iveson, Chris Dibben, Ian Deary, University of Edinburgh, UK

Older adults are particularly prone to function-limiting health issues which impact their ability to live independent and productive lives, and which detrimentally affect their wellbeing. Previous work has identified factors from across the life course – particularly childhood socioeconomic status, childhood cognitive ability and education – which are statistically associated with functional outcomes in later life. However, the independence of these contributions is unclear, particularly as later-in-the-life-course predictors are themselves affected by earlier ones. The present study capitalised on the recent linkage of the Scottish Mental Survey 1947 with the Scottish Longitudinal Study, and used path analyses to examine the direct and indirect associations between life-course predictors and the risk of functional limitation at ages 55 (N = 2374), 65 (N = 1971) and 75 (N = 1534). The odds of reporting a functional limitation increased across later life. At age 55, reporting a functional limitation was significantly less likely in those with higher childhood socioeconomic status, higher childhood cognitive ability, and higher educational attainment; these associations were only partly mediated by other predictors. At age 65, adult socioeconomic status emerged as an important mediator of several associations, although direct associations with childhood socioeconomic status and childhood cognitive ability were still observed. At age 75, only childhood

socioeconomic status and adult socioeconomic status directly predicted functional limitation risk. Upon further analysis of the types of functional limitation reported, higher socioeconomic status was associated with reduced risk of a functional limitation resulting from disease or illness, rather than other function-limiting conditions such as visual impairment. These results demonstrate that early life and adult circumstances, particularly adult socioeconomic status, are associated with functional ability in later life. However, the results also demonstrate that these associations are partly a product of complex mediation with life-course factors.

3D PAPER SESSION: CHILD

Exploring Longitudinal Care Histories for Looked After Children: A Sequence Analysis of Administrative Social Care Data

Louise McGrath-Lone, University of Oxford, UK; Katie Harron, London School of Hygiene and Tropical Medicine, UK; Lorraine Dearden, Ruth Gilbert, University College London, UK

Background: Since 1992, data related to children in out-of-home care in England have been routinely collected through the Children Looked After return (CLA) in order to monitor care provision and outcomes for looked after children. However, official analyses of CLA data produce annual statistical ‘snapshots’ which focus on placements within a 12-month period only and so cannot capture the complexity and heterogeneity of longitudinal care histories.

Methods: We explored the heterogeneity of childhood care histories (i.e. from birth to age 18) using CLA data for a large, representative sample of children born between 1992 and 1994 (N=16,000). Using sequence analysis methods, we identified sub-groups of care history based on the number, duration and timing of care placements. We then compared the cumulative characteristics of care histories between the identified sub-groups, including the final resolution of care experiences.

Results: Although care histories were varied, based on the stability and timing of out-of-home care placements, six distinct sub-groups were evident including; adolescent entries (17.6%), long-term instability (13.1%) and early intervention (6.9%). Overall, most children (58.4%) had a care history that could be classified as ‘short-term care’ with an average of 276 days and 2.48 placements in care throughout childhood. Few children (4.0%) had a care history that could be described as ‘long-term stable care’; but, most sub-groups appeared to achieve some form of permanence, either within or outside the care system.

Conclusions: Longitudinal analyses of administrative social care data can refine our understanding of how out-of-home care is used as a social care intervention. In particular, sequence analysis is a useful tool for exploring and classifying the heterogeneity of complex care histories. Considering children’s care histories from a life course perspective could enable service providers to better understand and address the needs of looked after children.

The Health and Well-Being of Adults Who Had Been in Care up to 40 Years Earlier: Are There Differences by Type of Care?

Emily Murray, Rebecca Lacey, Amanda Sacker, University College London, UK

The adverse life-long consequences of being looked after as a child are well recognised. However, systematic evidence on outcomes for looked-after children beyond the early adult years is currently very limited. This study will use the ONS Longitudinal Study (LS), a 1% sample of the population of England and Wales, to explore long-term consequences of being in care in childhood. Of the 120,000 dependent children in the LS in each of the census years 1971, 1981, 1991 and 2001, around 2.5% are looked after in non-parental households, giving us total samples in the order of 5,000 children in each of relative and unrelated households and 1,000 in residential care. Outcomes come from linked register data and from the 1981, 1991, 2001 and 2011 censuses and include health, education, work status, relationships and family and living arrangements. The study will compare outcomes for children with different care experiences, asking questions such as whether looked-after children fare as well as children in parental households; whether children in relative households fare better than children in unrelated households;

and whether children in residential settings do better or worse than children in relative or unrelated households. Appropriate regression models will be chosen depending on the outcome (i.e. logistic, Poisson, linear). For the age at first birth analysis, we will estimate Cox proportional hazard models with right censoring of the pooled data. The analysis will first be examined unadjusted, followed by step-wise adjustment for childhood demographics and then childhood social circumstances.

Successful Transition to Adulthood Amongst Young People in Care? A Mixed-Method Study

Mette Lausten, Jeanette Østergaard, VIVE – The Danish Centre for Applied Social Science, Denmark

The purpose of this paper is to analyse successful transitions to adulthood amongst young people in care from an 'objective' and 'subjective' point of view. By drawing on quantitative as well as qualitative data we ask 'what is successful transition for young people in care?' Defining successful transition has traditionally been marked by completion of post-compulsory education and employment (Schoon, 2015). However, studies show that care leavers are at risk of poor outcomes relative to the general population, especially in relation to education and employment (e.g. Olsen et al., 2011; Stein and Munro, 2008). At age 18-30, 50 % of young Danes formerly in care are in the NEET group compared to 17 % in the general population and about a third of the care leavers have completed post-compulsory education at age 25 compared to about two-thirds in the general population.

In this paper, we use administrative data on young people born in 1988 who have been in out-of-home care to investigate: 'What makes some care leavers end up doing well as young adults, as they go against all odds and complete post-compulsory education?'. We use sequence analysis and find 4 different educational pathways. Then we analyse what factors (care history, stability, parental background, mental health) make an impact on the probability of being in the 'against all odds'. Drawing on biographical interviews with 24 care leavers aged 17-30 we then ask: what do the young care leavers define as positive outcomes and how do they define the social changes that made the positive difference for them in their transition to post-compulsory education and/or the labour market? In the discussion we contrast the findings from the two types of data.

The paper draws on work conducted for the cross national project 'Against All Odds' funded by the Research Council of Norway.

Childhood Family Instability and Adult Health

Kathleen Mullan Harris, Lauren Gaydos, University of North Carolina at Chapel Hill, USA

American children live in a variety of family structures throughout their childhood. Such instability in family arrangements is common, and has important demonstrated implications for short-term child outcomes. However, it is not known whether family instability experienced in childhood has enduring health consequences across the life course. Using demographic, social, and biological data from the National Longitudinal Study of Adolescent to Adult Health, we investigate the family stress model, testing the relationship between family instability in childhood and four biological markers of health in adulthood. This is the first study to examine whether the accumulation of family change in childhood leaves a lasting physiological residue. While family instability is associated with poorer short-term behavioral and socioeconomic outcomes as documented in previous research, we find no evidence of deleterious adult health consequences. These findings are robust across different measures of physiological health risk and types of family transitions.

Lessons from a 20-Year Longitudinal Study of Individuals with Special Educational Needs

Jon Olav Myklebust, Volda University College, Norway

For decades, the transition to adulthood has been a central topic in longitudinal social research. However, the transition to adult life among adolescents with disabilities has been an under-researched theme. And the rather few studies in this field have generally had small samples and short follow-up durations leading to a concentration on studies of transition to domains in young adulthood. An exception to this trend is a research project at Volda University College in Norway, where social scientists have initiated a longitudinal prospective study of a cohort of 760 students with special educational needs who started upper secondary education in the mid-90s. Through 11 data collection waves the researchers have

recorded data on these individuals from their age of 17 to their age of 37. For more information on methods and publications, see brage.bibsys.no/xmlui/bitstream/handle/11250/2420877/Notat_04_2016_Myklebust%20m%20fl.pdf?sequence=1

My presentation focuses on three aspects of this longitudinal study: First, I outline the theoretical perspective. The approach is a variant of life course theory with an emphasis on the interaction of individual choices restricted or enabled by surrounding contexts (agency within structure). The concept of cumulative processes is also included. Secondly, I intend to discuss some methodological challenges of studying a very diverse sample of people with different types of disabilities and with a wide range of functional level. Thirdly, I will present some of the main results from different phases of the study concentrating on the following questions: How are trajectories through upper secondary school influenced by individual abilities and structural assistive measures? What factors play crucial importance in educational competence attainment, in obtaining economic independence or evading social security dependence, and in entering into parenthood among these individuals, in their twenties as well as in their thirties?

3E SYMPOSIUM

Adverse Childhood Experiences and Health Trajectories at Older Age: Longitudinal Analyses with SHARE
Stéphane Cullati, NCCR LIVES, University of Geneva, Switzerland

This symposium brings together the results of the research project 'Life course influences on health trajectories at older age' (LIFETRAIL). Evidence suggests that adverse childhood experiences (ACE) are associated with reduced quality of life and negative health outcomes in later life, such as adulthood, but so far research on whether this association can hold in old age is limited. The focus in this symposium is to investigate whether ACE are associated with the declines of four health outcomes at older age including grip strength, self-rated health, cognitive functioning, frailty and depression. Longitudinal data are retrieved from SHARE. ACE is assessed with an index score combining six indicators: not living with biological parents, death of parents, period of hunger, property taken away, adolescent parenthood, stillborn child in adolescence. The same analytical strategy was applied in the four studies, i.e. stepwise multivariate multilevel regression analyses. In the first model, the later life health trajectory was regressed on ACE, controlling for confounding factors between ACE and later-life health, and for attrition. Adulthood education, occupational position and satisfaction with household income are added in the following models to evaluate the potential mediating role of adulthood socio-economic circumstances in the association between ACE and health. The last model additionally includes individual characteristics such as partnership status, health and health behaviours, and covariates specific to each health outcome. Communalities and differences in the study outcomes are discussed at the end of the symposium.

The Gendered Effect of Adverse Childhood Experiences on Muscle Strength in Older Age

Presenter: Boris Cheval, University of Geneva, Switzerland

Co-authors: Dan Orsholits, Stefan Sieber, Idris Guessous, David Blane, Matthias Kliegel, Claudine Burton-Jeangros, Delphine Courvoisier, Michelle Kelly-Irving, Matthieu P. Boisgontier, Stéphane Cullati

Background: The origins of poor muscle function - a biomarker of health - may stem from early-life events, such as adverse childhood experiences (ACE). However, the epidemiological evidence is inconsistent. Here, we examined whether individuals who experienced ACE show a higher risk of low muscle strength in later life. We also investigated whether this association is mediated by adult-life SEC and health status.

Methods: We used data from the Survey of Health Ageing and Retirement in Europe, a 12- year population-based cohort study with repeated measurements in 6 waves (2004-2015). Confounder-adjusted logistic mixed-effect models were used to examine the associations between ACE and risk of low muscle strength.

Findings: 24,180 (96,377 observations) aged 50 to 96 years living in 14 European countries were included in the analyses. Risk of low muscle strength increased with age for both gender. Risk of low muscle strength was significantly higher for women who experienced ACE. This association was not significant

among men. Yet, the risk of low muscle strength over ageing was marginally stronger for men who experienced ACE. These associations remained unchanged when adult-life socioeconomic circumstances (education, main occupational position, and satisfaction with household financial situation) were included in the model.

Conclusions: Early-life is a critical period in which the onset of adverse events may influence long-term muscle function. Traumatic experiences during childhood seems to be a risk factor for long term health.

Adverse Childhood Experiences and Self-Rated Health Trajectories in Old Age

Presenter: Stefan Sieber, University of Geneva, Switzerland

Co-authors: Boris Cheval, Dan Orsholits, Bernadette W. Van der Linden, Idris Guessous, Matthias Kliegel, Marja J Aartsen, Michelle Kelly-Irving, David Blane, Delphine Courvoisier, Claudine Burton-Jeangros, Stéphane Cullati

Background: Previous research has shown that declining health in adulthood may be related to adverse childhood experiences (ACE). However, evidence on health trajectories at old age is scarce. We examined whether individuals who experienced ACE show a higher risk of poor self-rated health (SRH) trajectories in old age.

Methods: We used data of participants of SHARE living in 14 European countries aged between 50 and 96. The six available waves were included in the analyses (2004-2015). Confounder-adjusted logistic mixed-effect models were used to examine the association between ACE and risk of poor SRH in old age.

Findings: 24,643 (13,800 women) individuals were included in the analyses. Risk of poor SRH increased with age for both sexes. The risk of poor SRH was significantly higher for participants who experienced ACE in men and women. These associations remained unchanged when adult-life socioeconomic circumstances (education, occupation, household income) were added in the model. For both sexes, we did not find evidence for different SRH trajectories between participants who experienced ACE and those who did not (interaction of age with ACE), which indicates parallel trajectories in old age.

Conclusions: Results suggest that early-life may be a critical period. Adverse experiences occurred at that life stage may have long lasting consequences for health later in life without potential compensation during adult-life.

Adverse Childhood Experiences and Trajectories of Cognitive Functioning in Later Life

Presenter: Marja Aartsen, Norwegian Social Research, Norway

Co-authors: Boris Cheval, Stefan Sieber, Idris Guessous, David Blane, Claudine Burton-Jeangros, Delphine Courvoisier, Michelle Kelly-Irving, Andreas Ihle, Matthias Kliegel, Stéphane Cullati

Background: Cognitive ageing is characterized by large heterogeneity in old age. Research among children found that the architecture of the brain that underpins later-life developments is shaped during the first five years of a child's life, suggesting that childhood is a critical period for later life functioning. This study investigates to what extent adverse childhood experiences (ACE) leads to different trajectories of cognitive functioning in later life.

Methods: Data are taken from all the available waves of SHARE (2004-2015). To be included in the analyses individuals needed to participate in wave 3 and another wave at a minimum. We ran multivariate multilevel modelling assessing the association of ACE with trajectories of memory (13,025 women, 10,222 men) and verbal fluency (13,488 women, 10,629 men), while controlling for a series of factors known for its confounding effect on the relation between ACE and later life cognitive health, and controlling for attrition. We also examined the association of health-related ACE, an index score combining the following indicators: long hospitalisation, multiple hospitalisations, serious health conditions (leukaemia, broken bones, diabetes, heart trouble, etc.), and physical injury.

Findings: ACE was not associated with lower levels of verbal fluency nor with lower levels of memory at older age, for both men and women. ACE was also not associated with a stronger decline. However,

health-ACE were associated with lower verbal fluency and lower memory functioning, and with an accelerated decline over time, for both men and women. The effect of health-ACE on later-life cognitive trajectories was not mediated by adult-life socioeconomic position.

Conclusions: Health related misfortune during childhood was linked with poorer cognitive functioning at older age, whereas ACE in childhood is not associated with level and speed of cognitive decline.

Adverse Childhood Experiences is Associated with Growing Differences in Frailty Trajectories in Old Age

Presenter: Bernadette W.A. van der Linden, University of Geneva, Switzerland

Co-authors: Boris Cheval, Stefan Sieber, Michelle Kelly-Irving, Idris Guessous, David Blane, Claudine Burton-Jeangros, Delphine Courvoisier, Matthias Kliegel, Stéphane Cullati

Background: In Europe, with the increase of life expectancy, frailty is becoming an important outcome reflecting lower chances of healthy ageing. However, research on long-term risk factors of frailty is lacking. We aimed to assess associations of adverse childhood experiences (ACE) with frailty trajectories at older age, and to examine whether this link can be broken by the person's life course socioeconomic trajectory.

Methods: We used data from 13,283 women and 10,591 men aged 50 years and over included in the Survey of Health, Ageing, and Retirement in Europe (SHARE) study. Individuals were followed longitudinally over the full period of SHARE (2004-2015), assessing well-being, health, and socio-economic situation. In addition, information on retrospective life course was collected. Frailty was operationalized according to the Fried's phenotype, presenting either weakness, shrinking, exhaustion, slowness, or low activity, creating a 5- point scale (frailty dichotomized as 0 points non-frail versus 1-5 points (pre)frail). Confounder-adjusted multilevel logistics regression models were used to analyse associations of ACE with frailty trajectories.

Findings: Risk of frailty increased with aging. ACE was associated with risk of frailty among women and men. Among men only, ACE was associated with an accelerated increase of the risk of frailty. For both gender, the ACE and frailty association was not mediated by the person' life course socioeconomic trajectory.

Conclusions: Experiencing adverse events in childhood is linked with frailty at older age. Such unfavourable start in life is not compensated by the person' life course socioeconomic trajectory. Men's frailty with ageing is more sensitive to ACE compared to women.

Adverse Childhood Experiences Are Associated with Higher Levels of Depression in Old Age

Presenter: Martina von Arx, University of Geneva, Switzerland

Co-authors: Matthieu P. Boisgontier, Boris Cheval, Stefan Sieber, Idris Guessous, David Blane,

Matthias Kliegel, Claudine Burton-Jeangros, Delphine Courvoisier, Michelle Kelly-Irving, Stéphane Cullati

Background: Experiencing adverse life events during the sensitive period of childhood was shown to affect mental health in old age. Yet, there is no clear evidence in what way this association can be mediated by adult life-course socioeconomic attainments. Examining associations between adverse childhood experiences (ACE) and the level of depression in late life, this study investigated whether adult socioeconomic indicators mediate this relation.

Methods: Using longitudinal data of six waves (2004-2015) from the Survey of Health Ageing and Retirement in Europe (SHARE), we performed confounder-adjusted logistic mixed-effect models to assess associations between ACE and the level of depression in old age. Sequentially, models were adjusted for a series of control variables. Due to its possible interaction with ACE, an index of health-related ACE was integrated in the last model.

Findings: Data of 13,485 women and 10,752 men aged 50 to 96 years living in 14 European countries were included in the analysis. ACE were associated with higher levels of depression in late life and an

accelerated worsening of depression with ageing for men and women. Neither the inclusion of adult socioeconomic indicators, nor adding health-related ACE to the model mediated these associations.

Conclusion: Results indicate a long-term effect of ACE on depression in late life, which is not attenuated by socioeconomic indicators over the life-course. This underlines the decisive role of ACE for mental health in old age and emphasizes the need for public health interventions helping individuals to cope with a bad start in life.

3F SYMPOSIUM

Social-Biological Transitions Research: Recent Findings, Europe 2018

Convenor: David Blane, Imperial College London, UK

The SLLS Interdisciplinary Health Research Group presents its second annual partial-snapshot of European research into social-biological transitions, with presentations from Germany, Italy, Sweden, Switzerland and UK. Research into social-biological transitions has been described as walking on three legs (sociology; biology; statistics) and each of these disciplines contributes to the symposium. Structural factors predominate among the social exposures addressed. Material, Central Nervous System-mediated and epigenetic biological processes are considered. And the statistical challenges of this area of research are examined. The type of data sets analysed include linked registers and surveys collecting both social and biological measurements. Overall, the picture which emerges is of high quality work conducted in a number of centres across Europe, with SLLS-IHRg an embryonic collaborative forum.

Pain and Infections in Early Life Are Associated with Development of Stress Resilience and Cognitive Function

Presenter: Scott Montgomery, Orebro University, Sweden

Co-authors: Cecilia Bergh, Ruzan Udumyan, Mats Eriksson, Katja Fall, Ayako Hiyoshi, Orebro University, Sweden

Animal studies suggest stressful exposures in early life, when there is a developmental window of heightened susceptibility, have adverse implications for negative feedback control of the stress response. This can lead to prolonged and higher magnitude stress arousal throughout life. It has been difficult to replicate such findings in humans, as most studies have used stressful exposures that require a greater degree of social understanding than possible by an infant, such as death of a close relative. We have tackled this by using painful and uncomfortable exposures that are experienced as stressful at any age: otitis media and pneumonia requiring hospital treatment. A cohort of approximately 600,000 males and females, resident in Sweden, was followed from birth (1970 to 1992) to military conscription assessments in late adolescence, which included measures of stress resilience and cognitive function. Otitis media and pneumonia identified from the Patient Register were associated with lower stress resilience and cognitive function if they occurred by age two years, but not in later childhood. The associations could not be explained by chronic disease in adolescence. The first two years of life represents a period of greater susceptibility relevant to the nascent stress response and cognitive function. Prolonged discomfort during this period should be kept to a minimum, as a poorly controlled stress response has adverse consequences for disease risk in later life.

To Work or Not to Work? The Effects of Higher Pension Age on Cardiovascular Health

Presenter: Chiara Ardito, University of Torino, Italy

Co-authors: Roberto Leombruni, University of Torino; David Blane, Imperial College London, UK; Angelo d'Errico, Local Health Unit ASL TO3

The study explores the possible unintended health effects of pension reforms aimed at making eligibility criteria for occupational retirement more severe. The causal link between retirement age and hospitalization for cardiovascular diseases is investigated in a large sample of male Italian retirees (N=94,521). Endogeneity is addressed by an instrumental variable identification strategy, in a quasi-natural experiment set-up. The instrument exploits the variation in pension age determined by the standardization of the labour market transitions, which induces workers born during the first months of the year to retire at an older age. The analysis is performed on a longitudinal dataset that combines several Italian administrative archives on pensions, working histories and hospitalizations.

Results show that retirement at older age leads to a significant detrimental effect on health as a one-year delay in pension claiming rises significantly CVD hospitalization by 2.4 percentage points ($p < 0.01$). However, disadvantaged socio-economic groups are the most vulnerable to the extension of working life as it turns out that the detrimental effect of higher pension age is mostly borne by blue-collar workers, in the secondary sector and with low wages with a null or only marginal significant effect on their better-off counterparts.

Social to Biological Pathways: Synthesizing Explorative and Deductive Approaches

Presenter: Hannes Kroeger, Deutsches Institut für Wirtschaftsforschung, Germany

The study of social to biological pathways is particularly challenging, because it tries to integrate the complexity of two worlds of research – social and biomedical sciences. Deductively built theories in this field might miss large parts of detail or might not allow for heterogeneity within the population under study. This difficulty warrants stronger attention to alternative approaches of building and testing theories within the field of social to biological transitions. In this presentation I propose an approach that makes use of machine learning methods to explore potential complex interactions of social and biological conditions. Machine-learning algorithms are very powerful for developing predictive models that might be very accurate at predicting outcomes, but show a lack of interpretability of the model. This is a crucial problem, since it hinders further theoretical developments and limits the ability to transfer or modify the model to other contexts. Building on more recent approaches using interpretable decision sets, I propose a stepwise procedure that makes use of the strengths of explorative statistical methods without giving up the aim of traditional approaches in the field of building and developing clear theories. As an illustration I will use the well-established “long arm of childhood” research and ask the question how early life socioeconomic influences mid and late life mortality through both social and biological outcomes in the life course. Using an established field presents a good test for the reliability of this exploratory approach as we would expect at least the replication of commonly found results. Further, in this area of research there are many possible data sets that can be used for training the model, testing it and applying the newly synthesized theoretical model.

Socioeconomic Position and DNA Methylation Age Acceleration Across the Lifecourse in UKHLS

Presenter: Amanda Hughes, University of Essex, UK

Co-authors: Meena Kumari, Melissa Smart, Tyler Gorrie-Stone, Eilis Hannon, Jonathan Mill, Joe Burrage, Yanchun Bao, Leo Schalkwyk, Universities of Essex and Exeter, UK

Accelerated DNA methylation age is linked to all-cause mortality and to environmental factors, but studies of associations with socioeconomic position are limited. Studies generally use small and selected samples, and it is unclear how findings with two commonly used measures of DNA methylation age (Horvath; Hannum) translate to general population samples with a wide age range. We assessed the relationship of Horvath and Hannum DNA methylation age with a range of social position measures in 1,099 adults from the UK Household Longitudinal Study, aged 28-98 years. We examined income, labour market position, education and parental social class). Both Horvath and Hannum estimators substantially under-estimate DNA methylation age at older ages. Accounting for confounders, participants less advantaged in childhood were epigenetically ‘older’ as adults. For example, compared to participants with professional/managerial parents, Hannum age was 1.07 years higher (95% confidence interval (CI):0.20-1.94) for those with parents in semi-skilled & unskilled occupations, and 1.85 years higher (95%CI:0.67-3.02) for participants without a working parent at age 14. An association of DNA methylation age with education was explained by childhood social class, but the converse was not true. No other robust associations were seen. Results accord with research implicating early life circumstances as critical for DNA methylation age in adulthood, and suggest that previously reported associations with education may be explained by unmeasured factors from earlier in life. Research using the Horvath and Hannum estimators to examine associations with the social environment, where the distribution of exposures may change across generations, must take steps to avoid age-related confounding.

Disadvantaged Early-Life Socioeconomic Circumstances Are Associated with Low Respiratory Function at Older Ages

Presenter: Boris Cheval, University of Geneva, Switzerland

Co-authors: Clovis Chaber, Dan Orsholits, Stefan Sieber, Idris Guessous, David Blane, Matthias Kliegel, Jean-Paul Janssens, Claudine Burton-Jeangros, Christophe Pison, Delphine Courvoisier, Matthieu Boisgontier, Stéphane Cullati (mostly University of Geneva, Switzerland)

Poor lung function in late life may stem from early-life risk factors, but the epidemiological evidence is inconsistent. We investigated whether individuals who experienced disadvantageous socioeconomic circumstances (SEC) in early life show a higher risk of low respiratory function in older age and, if so, whether this relationship is mediated by adult-life SEC and health status. We used data from the Survey of Health Ageing and Retirement in Europe (2004-2015). Participants' peak expiratory flow was assessed with a Mini-Wright peak flow meter at waves 2, 4, and 6. Confounder-adjusted logistic mixed-effect models were used to examine the associations between early-life SEC and risk of low peak expiratory flow. Of the 21,734 adults aged 50 to 96 years included in the analyses (46,264 observations), 8295 (38.2%) were classified as having a low peak expiratory flow. The risk of low peak expiratory flow significantly increased with age (OR = 1.47 for ten years, $p < 0.001$). The risk of low peak expiratory flow was significantly lower for individuals with advantaged compared to disadvantaged early-life SEC (ORs ranging from 0.56 to 0.86, $p = 0.01$). These associations remained significant when adult-life SEC (education, main occupational position, and satisfaction with household financial situation) and health status (body mass index, muscle strength, physical activity, and pack-year smoking) were included in the model. Early-life SEC is a sensitive period influencing late-life respiratory health. The prevention of chronic respiratory diseases should consider circumstances arising early in life, including those linked to disadvantaged SEC.

3G SYMPOSIUM

Education, Schooling, and Wellbeing Over the Life Course

Convenor: Jack Lam, University of Queensland, Australia

Educational achievements are crucial for understanding individual wellbeing and outcomes over time. This session includes a number of papers designed to investigate how education, including both dynamics and experiences within school settings, as well as school contexts and environments, influence individual wellbeing. The papers include analyses of the relationship between family income, parental education, neighbourhood disadvantage, English speaking status, parental distress and school performance. The session will also examine school attendance, highlighting the importance of policies to improve school attendance. Experiences of children within schools are also examined, including analyses of bullying and victimization in relation to children's achievements. Finally, social characteristics such as gender and class are intransigent factors that continue to shape children's experiences in the educational setting, with gender continuing to influence educational aspirations and attitudes, and family class background shaping the benefits students reap from achieving tertiary education. All of the papers in this session will be delivered by researchers affiliated with the Life Course Centre, a multidisciplinary centre of research excellence established in Australia in 2014 with goals to investigate the mechanisms leading to social disadvantage over the life course and across generations and to provide the evidence to support new policies and programs designed to reduce social disadvantage.

The Stratification of Post-Graduate Outcomes of Advantaged and Disadvantaged Students Over Time

Presenter: Wojtek Tomaszewski, University of Queensland, Australia

Co-authors: Francisco Perales, Matthias Kubler, and Ning Xiang

A wealth of international research shows that participation in Higher Education (HE), particularly at the advanced graduate level, has positive impacts on people's socio-economic outcomes. The attainment of advanced tertiary-level educational qualifications is amongst the strongest predictors of subsequent success in the labour market, including the attainment of secure and continuous employment (OECD, 2006), high productivity and wage growth (Daly et al. 2015), and occupational standing (Hauser et al. 2000). There are also documented spill-over effects on other domains in life, such as psychical and mental health and wellbeing (Ross & Wu, 1995; Anstey & Christensen, 2000; Hill et al., 1998). However, in the Australian context, concerns have recently been expressed about heterogeneous returns to HE, whereby

graduates from more advantaged backgrounds reap more benefits from participation in HE than graduates from less advantaged backgrounds (Tomaszewski et al. 2017; Perales & Chesters, 2017). Despite these concerns, there is a dearth of research in Australia that specifically considers differences in long-term trajectories of graduates' outcomes (recognising that the benefits of HE take time to accrue), and of studies that move beyond an exclusive focus on income (recognising that the benefits of HE are broader than its economic returns and, for example, include enhanced social and cultural capital, and improved wellbeing). This paper seeks to address this gap in knowledge by investigating post-graduate outcome trajectories of students from advantaged and disadvantaged backgrounds. The research employs statistical analysis of high-quality, large-scale data from the Australian Government Census of Population and Housing (the Census) and the Household, Income and Labour Dynamics in Australia (HILDA) Survey to investigate the stratification of post-graduate outcomes of advantaged and disadvantaged students over the short, medium, and long run, and across a number of domains (labour market, social capital, wellbeing), discussing concrete implications for research and policy.

Gender Differences in Educational Aspirations and Attitudes

Presenter: Tina Rampino, University of Queensland, Australia

Positive attitudes and high aspirations are positively correlated with subsequent attainment and education-related behaviours. Using panel data from the British Household Panel Survey we examine gender differences in educational attitudes and aspirations among 11-15 year olds. We find that girls have more positive aspirations and attitudes than boys while heterogeneous gender effect models reveal that boys are more responsive to the home learning environment and that their educational attitudes and aspirations deteriorate at a younger age than those of girls. These findings have implications for policies designed to reduce gender differences in educational attainment as they identify factors which exacerbate the educational disadvantage of boys relative to girls.

Mediators of the Relationship Between Early-Life Disadvantage and Subsequent School Performance

Presenter: Daniel Christensen, University of Western Australia

Co-authors: Joel Stafford, Cate Taylor, and Stephen Zubrick

Children do not have equal starts in life, and there is evidence across a range of domains that these differences have lifelong consequences. Differences in child competencies emerge early, influenced by a range of social exposures. School readiness, emotional regulation, and task attentiveness represent crucial child competencies at the start of school. In this study of approximately 5000 Australian children, we look at the extent to which these competencies mediate the association between social disadvantage at age 2, and school performance at age 6-10. Family income, maternal education, neighbourhood disadvantage, maternal non-English speaking status, maternal psychological distress, and child sex are assessed in this study as particular vulnerabilities associated with school performance.

The Diverse Risk Profiles of Persistently Absent Primary School Students: Data from the Longitudinal Study of Australian Children

Presenter: Kirsten J. Hancock, University of Western Australia

Co-authors: Francis Mitrou, Catherine Taylor and Stephen Zubrick

The risk factors associated with absenteeism are well known. However, children's exposure to combinations of risks and how these relate to absence patterns remains unclear. Understanding variations in risk profiles among persistently non-attending children will inform the development of absence interventions. Using a longitudinal sample of Australian children (6–11 years), a latent class analysis of 19 risks identified four classes of risk exposure. Most children (56%) were exposed to minimal risk, 20% were exposed to parenting, child development, and mental health risks only, 15% were exposed to a greater extent to financial risks only, and 9% had a higher probability of exposure to all risks. Persistently non-attending children were eight times more likely to be in the high-risk group than regular attenders. However, one-third of persistent non-attenders were classified as low-risk. The heterogeneity of risk profiles is discussed in relation to policies using financial penalties to motivate improved attendance.

The Impact of Neighborhood and School Contextual Factors on Bullying and Victimization

Presenter: Sophie Aiyer, University of Queensland, Australia

Co-authors: Lorraine Mazerolle, Sarah Bennett

We examined the impact of neighborhood and school contextual factors on bullying and victimization in a sample of truanting youth. We examined both direct effects, as well as interactions in order to better understand the role of social contexts in shaping behavioural problems. In addition, we assessed whether a truancy prevention program was able to disrupt risk pathways from both neighborhood and school factors. We analyzed data from a longitudinal truancy prevention trial. We conducted hierarchical regression analyses to assess the direct and moderating effects of neighborhood and school contexts on bullying and victimization, looking separately at each wave, and assessing differences between experimental and control participants. In the neighborhood domain, household income and the percentage of married residents reduced risk of both bullying and victimization, while unemployment, and the percentage of Indigenous Australians increased risk of behavioural problems. In the school domain, the percentage of non-English speaking and Indigenous Australian students increased risk of victimization. School structural factors additionally modified neighborhood risk exposure. We also found differences by experimental group, suggesting the program may have reduced the effects of school risk factors on bullying.

Parallel Session 4

4A PAPER SESSION: EDUCATION

Children's Time Use and Educational Achievement: Assessing Evidence from the Japan Child Panel Survey

Ryosuke Nakamura, Fukuoka University, Japan; Jun Yamashita, Japan Women's University, Japan; Hideo Akabayashi, Keio University, Japan

Objectives: A recent OECD report (2011) described that Japan, while known as a high performing country in achievement tests, faces the problem of widening educational inequality across family SES. In addition, previous studies suggest that the disparity in the amount of study at home is one of the important factors behind this issue. To gain a better understanding of the pathway, we analyzed the children's academic learning time using recent longitudinal data of children. We have two research questions. First, when and how do parent's SES impact the children's time use outside school and their educational achievement? Second, when and how do differences in children's time use and educational outcomes across parents' SES groups change over the course of child development?

Methods: We used the Japan Child Panel Survey which has collected both cognitive and non-cognitive outcome measures and children's time use since 2010. We first visualized the trajectory of children's time spent in selected activities, such as academic learning, watching TV, and etc. We then applied simple OLS and panel data analysis (i.e. fixed-effect and random-effect models) to clarify the relationship between parents' SES and children's time use while controlling for the unobserved individual heterogeneity.

Results: The gaps in academic learning time between the highest income group and the lowest income group begins widening from the fourth grade onward. This gap in academic learning time is reduced when children enter junior high school (grade 7). (2) Both the time spent watching TV, playing video games and academic learning time are strongly affected by household income level. (3) The results of the panel data model suggest that the amount of academic learning time, rather than household income, is the key determinant of test scores.

The Pursuit of a Post-Secondary Education for Lower-Income Youth: Predictors of Educational Outcomes Following a Major Educational Reform

Alison Kirkpatrick, Kathleen Kennedy-Turner, Daniel J. Dickson, Dale M. Stack, Alex E. Schwartzman, Lisa A. Serbin, Concordia University, Canada; Marie-Helene Veronneau, Université du Québec à Montréal, Canada; Jane E. Ledingham, University of Ottawa, Canada

The Quiet Revolution of the 1960's and 70's was a period of rapid socio-political change in the province of Quebec, Canada, resulting in major improvements in access to quality education. However, despite significant increases in educational attainment over a generation, Quebec still lags in its post-secondary education rate. The primary goal of this study was to examine how individual, family, and contextual factors affected enrollment and completion of publicly-funded pre-university and professional programs, in a 40-year longitudinal cohort of disadvantaged youth who began their schooling following these reforms. Participants in the current study were a sub-sample of high-school graduates (N = 980, 54.4% female) from the Concordia Longitudinal Research Project (Schwartzman, Ledingham, & Serbin, 1985). The Concordia Project was initiated in 1976, when the current participants were children attending public elementary schools in lower-income Montreal neighborhoods. Among these secondary-school graduates, 72.4% of females and 65.5% of males entered post-secondary programs. Of those who enrolled, around half (58.3% of females and 49.8% of males) graduated. Family disadvantage and behavioral problems (aggression, withdrawal) during childhood negatively predicted both post-secondary enrollment and subsequent completion, while positive peer relationships (likeability) predicted success.

These childhood predictors were partially mediated by standardized achievement test scores (including reading and math skills) which, in turn, predicted post-secondary outcomes. Gender differences also appeared, particularly relating to the role of childhood social engagement with peers.

Despite increasing opportunities in Quebec, children from economically disadvantaged backgrounds remain less likely to benefit from post-secondary programs. For lower-income youth, strengthening basic academic skills and addressing behavioural problems at earlier stages of education may improve post-secondary participation and success. Peer relationships may also play a role in continuing gender differences in post-secondary outcomes. Policymakers should look beyond addressing access and affordability, and examine individual, family, and contextual factors contributing to post-secondary participation and success.

The Transition to Upper-Secondary Education in Switzerland: Examining the Role of Informal Competencies, Tracking and SES

Ariane Basler, Jacobs Center for Productive Youth Development, Switzerland; Irene Kriesi, Swiss Federal Institute for Vocational Education and Training, Switzerland; Marlis Buchmann, University of Zurich, Switzerland

Often drawing on Boudon's (1974) concept of primary and secondary effects, previous studies have shown that socio-economic background plays an important direct and indirect role in explaining educational attainment in upper-secondary education (e.g., Becker 2010; Blossfeld et al., 2016; Combet 2013). Most studies regarding upper-secondary education in tracked systems have conceptualized VET as a homogenous educational track despite the fact that VET programs vary greatly in intellectual requirements (Buchmann et al. 2016). Moreover, informal, non-certified individual competencies have been largely neglected, even though there is some evidence that they contribute to educational achievement (Farkas 2003, Heckman et al. 2006). We assume that informal competencies, such as social, self and productive competencies, affect transitions to VET and upper-secondary general education differently. Against this background, we investigate, for Switzerland, the interplay of informal competencies, SES, and lower-secondary tracking for explaining access to two VET levels of different intellectual requirements, to specialized schools or to baccalaureate schools.

Our analyses are based on the Swiss longitudinal study COCON, including a sample of 15- year old youth born in 1990/91, and being representative of the German- and French speaking parts of Switzerland. We use data from the survey waves of 2006, 2007, 2008 and 2009, when the respondents were 15, 16, 17 and 18 years old. We ran multinomial regression models and made use of the KHB method (see Karlsen and Anders 2011; Kohler et al. 2011) in order to decompose the effects of interest. Preliminary findings show that informal competencies, such as the ability to work in a team, academic self-efficacy and persistence, are of different significance for access to upper secondary tracks. Social background plays both a direct and indirect role mediated by performance and track placement. This highlights that social inequalities in educational opportunities are still fairly strong in Switzerland.

4B PAPER SESSION: INEQUALITIES

Primed for the Party: Social Class, High School Engagement, and College Pathways

Janel Benson, Colgate University, USA; Elizabeth Lee, Ohio University, USA

Studies show that lower-income students follow very different pathways through college than their more affluent peers. They are less involved in extracurricular activities, spend fewer hours partying, and are more likely to work for pay (Armstrong and Hamilton 2013; Stuber 2011; Martin 2012). Studies have pointed to differences in financial resources and academic preparation as explanations for these class differences (Quadlin 2015; Lee 2016). What is missing, however, is an understanding of how pre-college contexts, beyond academic preparation, may prime or variably equip students to select into different types of campus activities and peer groups. Using panel data from the National Longitudinal Survey of Freshmen and latent class analysis, we examine social class differences in how students are embedded in their high school and college communities, paying careful attention to both time use and peer group values. Affluent and lower-income students enter selective colleges with similar strong academic profiles characterized by high grades and long hours studying, but class differences emerge in engagement

outside of the academic sphere. Lower income students spend more time helping out with household labor and working for pay than their more affluent peers, and they have less exposure to cultural capital building activities and party-focused peers. At the end of the first year of college, we find lower income students are less likely to be engaged in peer contexts that value partying and are more likely to be socially isolated compared to their more affluent peers. These differences, however, are largely explained by high school peer contexts and exposure to cultural capital. This work extends our understanding of the ways high school experiences, beyond the classroom, unevenly prime students for college, leading to variation in college pathways with implications for upward mobility.

The Evolution of Occupational Aspirations of UK Children: How Do They Vary by Gender and Ethnicity?

Sam Parsons, UCL Institute of Education, UK; Lucinda Platt, London School of Economics, UK

Aspirations are gendered from an early age and such gendered occupational choices of both boys and girls are consequential for the continuation of gendered labour markets, a key source of women's labour market disadvantage. Even as increasing numbers of young women from all ethnic groups succeed in higher education, how far are their expectations of a successful career and one in non-feminised occupations changing? Here we have looked at the occupational aspirations at ages 7, 11 and 14 of children in the Millennium Cohort Study. To understand the consequences of their developing aspirations we supplement this with analysis of the actual occupations of 25 year olds in Next Steps. At the three ages, the MCS teenagers were asked what they would like to be when they grew up. By linking these aspirations to measures of labour market segregation and pay from the Labour Force Survey and estimating growth curve models, we identified how the nature of their aspirations had developed over time, and how they differed by gender and ethnicity. We found that even after controlling for a wide range of personal and family characteristics, aspirations were rather stable across the seven years, though girls tended to aspire to higher-paid and boys to lower-paid occupations over time resulting in some convergence. At the same time, girls continued to aspire to work more in female-dominated occupations and in jobs that earn a relatively lower wage than those teenage boys aspired to. Interestingly, we found that ethnic minority children aspired to higher-paid occupations than those of white majority counterparts, with differences being most marked among girls. Additional analysis using Next Steps data, will explore the implications of ethnic and gendered differences in aspirations for early career outcomes.

How the Structure of the School System Influences Social Inequality in the Life Course: Evidence from Germany, United Kingdom and Canada

Marie Wohlbrandt, Wolfgang Lauterbach, University of Potsdam, Germany

Educational pathways are determined by the organization of the educational system, the individual performance and the social background of family of origin. We know that Germany possesses a tripartite school system, a vocational training system and a tertiary education system. Great Britain and Canada have more comprehensive school systems and a less standardized vocational training systems. We want to know whether a more comprehensive system with fewer separated school types like the British one or a pure comprehensive school system without any separation in different school types like the Canadian one can overrule social background impact. Thus, is a lower stratified school system the key for decreasing inequalities in educational pathways? Based on three longitudinal surveys – the German Life-Study, the British Cohort Study 1970 and the Canadian Paths of Life's Way-Study – we compare the impact on achievement of two essential educational degrees: First the upper secondary degree (high school) and second the tertiary degree, both depending on school type and performance as well as educational status and social class of the parents in control for gender. We test our hypotheses through nominal logistic regression modelling. In contrast to our assumptions we find significant effects of social background on educational qualification in all three nations, albeit in different ways for each nation. Also, we found significant gender differences in both, the extent of educational participation and the impact of school characteristics and social background. We come to the conclusion that – even if we have a pure comprehensive school system without stratification in school types like in Canada – the impact of parental status on the formation of individual educational pathways is crucial, albeit in different ways for boys and girls. Furthermore, we can state that in a more comprehensive school system the impact of school performance on educational achievements is getting stronger.

4C PAPER SESSION: TRANSITIONS

The Importance of Contacts During the Labor Transitions: A Longitudinal Study Among Young Adults

Mattia Vacchiano, Joan Miquel Verd, Autònoma de Barcelona, Spain

A large body of sociological literature has been accumulated regarding the role of personal contacts in the labour market. Through the implementation of a hybrid form of survey - which includes the collection of longitudinal, network and narrative data in the same instrument - the Redemas Project (Spanish Ministry of Economy through grant CSO2012-36055) studied the importance of personal networks during the labor transition of 250 young adults aged 20–34 in the Barcelona metropolitan area. The study shows that networks represent the main channel of job insertion among young adults, underlying how networks buffered the deficit of employment opportunities during the economic crisis acting as a bridge to informal and unstable forms of employment. In addition, the study emphasizes the importance of the family as a protective agent against unemployment, being the family networks central to bridge to the weakest and most effective ties to obtain employment in both the primary and secondary segment of the labor market.

The presentation aims to describe the results mentioned above and comment the methodological issues faced in the unprecedented attempt in Spain to integrate data from a longitudinal surveys and egocentric networks. We explain how several issues have been solved during the survey design of the ongoing Capisnes project (Spanish Ministry of Economy through grant CSO2016-77905) conducted by the Centre d'Estudis Sociològics sobre la Vida Quotidiana i el Treball - Universitat Autònoma de Barcelona.

Girls' Transition to Adulthood and Their Later Life Socioeconomic Attainment: Findings from the English Longitudinal Study of Ageing

Baowen Xue, University College London, UK

Background: Transitions to adulthood are thought to represent a sensitive period for setting young people into particular life course trajectories, yet there is little quantitative evidence on how girls' varied transitions into adulthood influence their later life socioeconomic attainment. Our study uses sequence analysis to character adolescent transitions out of full-time education and their association with socioeconomic attainment in later life.

Methods: Our data are from the English Longitudinal Study of Ageing (2002/03–2014/15) for the girls born 1939–1951 (N = 1798). We used sequence analysis and identified six types of transition between age 14 and 26: 'Early-work', 'Mid-work', 'Late-work', 'Early-domestic', 'Latedomestic', and 'Part-time mixed'. We then used logistic regression to examine associations between transition types and socioeconomic attainment at age 50+, defined as being in the highest quintile of individual or household income, or household wealth, or in a professional/managerial occupation.

Findings: Our study found two key links between adolescent transitions and later socioeconomic attainment. First, later transition into employment was associated with a higher likelihood of higher socioeconomic attainment after age 50. For individual measures of attainment (income and class), this was largely, but not entirely, due to higher educational attainment. Household measures of attainment (income and wealth) were unexplained by education or parity, suggesting homophily in partner's attainment may play an important role. Second, early transition to full-time domestic work set young women into trajectories of lower likelihood of financial attainment, although not necessarily lower occupation class than those who made early transitions to paid work. In terms of household wealth, disadvantage amongst women in this group was explained by parity.

Conclusion: Our study findings show that inequality in early adulthood transitions cast a long shadow for the generation of women who are currently reaching later life.

School, Work, Unemployment and Crime: Life Course Transitions on the Verge of Adulthood and their Influences on Norms, Peers Associations and Delinquent Behavior

Andreas Daniel, German Centre for Higher Education Research and Science Studies (DZHW), Germany
The successful transition from school to work in late adolescence is of great interest in the explanation of desistance from crime. Unfortunately, the number of research results for the German educational system with its uniquely structured school to work transition is limited. However, many studies from a range of other countries show the reducing effect of good work on delinquency and crime related variables especially in adulthood. According to control theoretical assumptions this is due to an accumulation of personal capital (social, cultural and physical capital) and/or due to a restructuring of routine activity patterns. It is assumed that these processes are strengthening the ties to conventional society and reducing the exposure to pro-delinquent situations, like the association with delinquent peers. Furthermore, it is argued that a successful transition leads to a stronger internalization of a conventional identity. This line of argumentation leads thus to the assumption that crime related variables should be subject to modifications induced by life course transitions.

To test the relationship between life course transitions in the German educational system and crime related variables, data from the German longitudinal panel study CRIMOC is used. By applying a longitudinal latent class analysis (LLCA) to the employment status for the five years after the 10th grade, different transition patterns are discovered (transitions to third level schools, vocational training and unemployment). Using a Structural Equation Model it is then analyzed how delinquent exposure, normative orientation and delinquent behavior are modified by the different transitional patterns.

Individual and Structured Doctorates and their Effect on PhD Holders' Early Career Transitions in Germany

Susanne de Vogel, German Centre for Higher Education Research and Science Studies (DZHW), Germany
The early learning experiences during the doctorate influence the career decisions of PhD holders in later life course stages in an important way. In Germany, there are several formal contexts leading to a PhD (for example, individual doctorates within a research assistant position or employment outside academia, or structured doctoral programs following the Anglo-Saxon model), which also provide very different learning conditions. The diversity of formal doctoral contexts leads to the question, if different formal contexts also create different starting conditions for a career inside or outside academia. Therefore, this paper addresses the following question:

How do different formal PhD contexts and their specific learning conditions influence the transition into leading positions inside and outside academia in early career stages? According to the social cognitive career theory, learning conditions influence young researchers' intentions to pursue a career inside or outside academia. From a more economic point of view, their outcomes (like the final grade, working experiences and career networks) in turn increase the chances to be appointed for a leadership position inside and outside academia. To answer this research question, history event analyses were applied which are based on longitudinal data from the DZHW PhD panel study. This representative sample comprises around 5400 doctorate holders of all disciplines who received their degree from a German university in 2014.

Findings confirm that within three years after graduation, PhD holders who obtained their doctorate within employment outside academia are less likely to get appointed to a leadership position in academia. However, for transitions outside academia, there were no significant formal context differences. Additionally, we find that learning environments encouraging the PhD students' discourse participation increase the chances to enter a leadership position in academia, whereas practice-oriented environments have a positive effect on the transition outside academia.

4D PAPER SESSION: WORK

Turning Points in Labor Market Trajectories: Mixed-Methods Concept Development

Nicolas Legewie, German Institute for Economic Research (DIW Berlin), Germany; Ingrid Tucci, Marseille University, France

The concept of turning points is crucial in life course research. In general terms, they describe fundamental shifts in the dynamic of a trajectory. They are of interest as a means to understand stability and change in life course trajectories. Empirical studies on turning points focus on, e.g., criminal behavior, the labor market, or religious beliefs. But such studies often use very different notions of what turning points are and how to identify them, thereby complicating further theoretical development.

In our paper, we draw on existing research as well as on an innovative mixed methods research design to further the conceptual development of turning points. Our contribution uses data from a project on labor market trajectories of immigrants' descendants in Germany in which we combine data from the German Socio-economic Panel (SOEP) with qualitative in-depth interviews conducted with 25 respondents to the panel survey. With participants' informed consent, we were able to link directly the qualitative and SOEP data.

Using the qualitative, retrospective data and the data collected in the panel survey on the 25 SOEP participants, as well as theoretical work in the existing literature, we (1) develop a concept that integrates relevant elements of turning points; (2) present operationalizations for applying this concept to qualitative, quantitative, and mixed methods data; and (3) use cluster analysis to explore whether and to what extent turning points as depicted by the concept we develop can be identified across the entire SOEP population. With this analysis, we aim to contribute to the literature on turning points, life courses, and, more specifically, to labor market trajectories. Further, we present an innovative way of combining qualitative and quantitative data for case analysis and concept development.

Moving In and Out of Work in the 50s, 60s, and 70s: An Intersectional Analysis of Disparities in Participation in the United States

Phyllis Moen, Sarah Flood, University of Minnesota, USA

Despite the fact that stress process and life course scholars point to the dynamics of life course pathways and structural embeddedness of individuals in intersectional social locations, most later life labor force exit/retirement research considers annual or biennial, not monthly, continuity and change and investigates variables rather than person-centered pathways in work participation over a period of months. Even though age discrimination, Social Security and Medicare eligibility dates, and layoffs are theorized as characteristics of the social environment, they have typically been used to predict one point in time exits, not as constraints shaping gendered later life-course pathways of those moving toward the end of their working lives.

We capitalize on massive micro-level panel data in the Current Population Survey (CPS) over the 10 years from 2008 through 2018 to examine disparities in biographical pacing –the timing, duration, and sequencing of remaining in or out of employment, or transitioning out of or into employment over a 16-month period. We have CPS data on hundreds of thousands of Americans ages 50 to 79, most of whom are Boomers. This is, to our knowledge, the first population-based study specifically addressing associations between intersecting social locations and short-term continuities and changes (over eight time points across a 16-month period) in labor force participation, permitting the capture of the dynamics of work and labor market exits at the micro-level, rather than annually or biennially. Doing so permits us to understand overlapping population heterogeneity in later life course employment paths, including the odds of both early (prior to age 62) and late (after age 67) participation and exits. A large body of scholarship points to the importance of work for health and well-being, but we do not understand variation and disparities in timing, duration, and sequencing of work or exits, or re-entries.

Stability and Change in Occupational Career Patterns Over 36 Years

Kurt Häfeli, Claudia Schellenberg, Annette Krauss, University of Applied Sciences of Special Needs Education, Switzerland

How stable are occupational career patterns (OCP) from youth to middle adulthood in a country with a strong apprenticeship system? How can OCP be predicted? What consequences do they have? A recent literature review on OCP showed mixed results on stability/change (Dlouhy & Biemann, 2015). Based on a developmental-contextualist perspective of career development (Schoon et al., 2009; Levy & Bühlmann, 2016) we describe occupational career patterns (OCP) over a period of 36 years using longitudinal data from a representative sample of Swiss men and women (Schmaeh et al., 2015). For 584 persons complete information about the occupational development from 16 up to 52 years of age is available. The activity of each year was categorized with the help of the "International Standard Classification of Occupations" (ISCO-08). We conducted sequence analysis (Optimal Matching Analysis) with the LCS dissimilarities metric to find clusters (TraMineR, Gabadinho et al., 2011) and ANOVAs to compare group differences.

The results show six plausible and differentiated OCP for each gender which are mostly based on ISCO main categories. Four patterns are very similar (managers, professionals, associate professionals, clerical support), while two are different: for women service/sales and a family pattern, for men crafts and machine operators. In women's OCP much stability can be observed; men, on the other hand, show more changes and upward mobility. The patterns are influenced by indicators at the age of 15: Family's socio-economic status (only men), cognitive ability, attitudes toward gender equality, but not personality (Big Five). We also find several consequences of OCP at age 52 on objective indicators of career success (ISEI-status, income), subjective indicators (satisfaction with income (only men), motivating work, career adaptability), life satisfaction and subjective health (only men), attitudes toward gender equality, but not personality (Big Five).

The results show mostly positive influences from youth on high-qualified professions, upward OCP and more problematic outcomes in middle age for low-qualified occupations or patterns with interrupted careers. The findings suggest that both agency and structure influence OCP.

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4E SYMPOSIUM

Methodological Issues and Policy: Implications for Design, Analysis and Communication

Convenor and Chair: Aisling Murray, Economic and Social Research Institute, Ireland

Mind the Gap Between Science and Policy

Susan Morton, University of Auckland, New Zealand

(Abstract here soon)

Policy Considerations for the EuroCohort Research Infrastructure

Gary Pollock, Manchester Metropolitan University, UK

(Abstract here soon)

Bad Data Analysis Should Not Inform Policy

Harvey Goldstein, University of Bristol, UK

While it is generally accepted that longitudinal studies are crucial for informing many kinds of policy debate, the level of understanding needed to carry out the appropriate analysis of statistical data is often hotly debated.

Many researchers in practice act as if the presentation of simple ‘descriptive’ statistical summaries will often suffice and that so called ‘sophisticated’ statistical modelling, while desirable, can often be regarded as a luxury that is unlikely to alter much substantially.

This presentation takes issue with such a view, arguing that in many cases simple analyses are also ‘simplistic’ in the sense of presenting plausible but misleading inferences. The talk will argue that the notion of a descriptive statistic is often misleading since all statistical summaries are based upon underlying assumptions that are crucial for understanding what is presented.

The talk will suggest that a researcher unskilled in the nuances of current data analysis methods, who nevertheless analyses data using readily available software in order to present their results to policymakers, is effectively being unethical. Such a practice is akin to asking one’s neighbour to extract a tooth with a piece of string rather than seeking a qualified dentist: it might work but will often cause damage. A particular published report claiming a dramatic lack of educational progress for working class children, with important policy implications, will be used as an illustration.

The presentation will seek to make some suggestions about how research findings of relevance to policy might better be dealt with, and how an ethical framework for data analysis and interpretation might be developed. At a time when researchers are increasingly being instructed to have ‘impact’ and to produce ‘policy-relevant’ findings, such a framework becomes especially important.

4F SYMPOSIUM

Big Data Meets Long Data: Linguistic Fingerprints Across the Whole of Life: Analysing the Language Used in Childhood Essays and its Predictive Power for the Future

Convenor: Margaret L. Kern, University of Melbourne, Australia

Language has long been thought to reflect meaningful individual and group similarities and differences. Qualitative data can provide deep knowledge and rich insights into people’s lives, but coding and making sense of written information can be challenging. Advances in computational linguistics make it possible to analyze large amounts of linguistic information, but studies are typically cross-sectional or short-term. Taking advantage of a large nationally representative sample that has been prospectively followed from birth through age 55, essays written in childhood, and machine learning techniques, this interdisciplinary team of researchers address these challenges.

The National Child Development Study is a UK based study that has followed a cohort of over 17,000 individuals prospectively across their lives. Surveys comprised a broad range of topics. At age 11, children were asked: “Imagine you are now 25 years old. Write about the life you are leading, your interests, your

home life and your work at the age of 25". We transcribed the essays, and applied machine learning tools to extract linguistic features from the essays. The studies in this symposium consider the predictors, correlates, and outcomes associated with language across six decades of life, presenting thought-provoking findings and discussing potential implications.

Linguistic Predictors of Health Across Five Decades

Presenter: Margaret L. Kern, The University of Melbourne, Australia

Co-authors: A. H. Schwartz, A. Goodman, M. K. Narayanan

Language has been used to predict a variety of health outcomes. However, studies linking language and health have primarily been cross-sectional or short-term in nature, or have used small and unrepresentative samples. Combining the power of a large, nationally representative sample with multi-decade longitudinal data, the current study examines the predictive power of language across five decades. Using data from over the National Child Development Study (NCDS), the current study examines whether age 11 linguistic features can predict health outcome from age 23 through 55. About 10,500 essays were transcribed. To address the challenge of coding and analyzing such large amounts of qualitative information, we apply machine learning algorithms. Three types of linguistic features were extracted: existing theory-derived lexica, words and phrases (sets of 2-3 words) from the essays, and a set of topics derived from the data. We predict physical and mental outcomes at age 55. Gender, social class, and other relevant variables from the questionnaire assessments are then added to the model. We test the predictive power of language alone and compared to models that include the survey-based control variables. Results and implications will be presented at the symposium.

Linguistic Insights into Intergenerational Social Mobility

Presenter: Alissa Goodman, UCL Institute of Education, UK

Co-authors: M. K. Narayanan, M. L. Kern, A. H. Schwartz

Why are some individuals able to become upwardly socially mobile, achieving a higher relative or absolute socio-economic status compared to that of their parents, and others do not? In the previous literature upward social mobility has been associated with some aspects of parenting, including the quality of early childhood care, and parental interest and aspirations in their child's education; as well as the child's own aspirations, cognitive development and educational attainment. However, the ingredients of resilience remain elusive. We bring new information to this question, by analysing associations between the language used in brief essays that were written by members of the National Child Development Study (NCDS) at age 11. This paper explores whether language variables from age 11 essays can predict upward or downward intergenerational social mobility, and whether they do so above and beyond what the NCDS survey variables can explain. Social mobility is captured using measures of socio-economic status in the parent and child generations based on income, social class, and home ownership. Language variables included latent topics (open-vocabulary content analysis), existing theory-derived lexica, as well as specific linguistic traits which were derived by machine learning algorithms. Our analyses include a series of multivariable regression analyses as well as machine learning algorithms to train and test a predictive model. Results will be presented and discussed at the symposium.

Using Childhood Essays to Predict Cognitive Functioning in Mid Life

Presenter: Martina K Narayanan, UCL Institute of Education, UK

Co-authors: A. Goodman, M. L. Kern, A. H. Schwartz

Cognitive development in childhood is known to be strongly predictive of cognitive function in mid-life. Previously it has been shown among a unique study of nuns that language abilities demonstrated in autobiographical essays written in youth (late teens and early twenties) were predictive of dementia and Alzheimers risk many decades later. The current paper explores whether linguistic features derived from age 11 essays in the NCDS can predict cognitive functioning at age 50, and whether they do so above and beyond what the NCDS survey variables can explain. Adult cognitive assessments at age 50 captured verbal fluency (animal naming test), attention and mental speed (letter cancellation test) and verbal learning, recall and memory. Cognitive assessments at age 11 included four tests capturing reading comprehension, perceptuo-motor ability, general ability (verbal and nonverbal) and arithmetic abilities. Language variables included latent topics (open-vocabulary content analysis), as well as specific 'linguistic

traits' which were derived by machine learning algorithms. A series of multivariable regression analyses as well as machine learning algorithms were used to answer our research questions. Results will be presented and discussed at the symposium.

Predictors of Linguistic Features in Childhood Essays

Presenter: Benedetta Pongiglione, UCL Institute of Education, UK

Co-authors: A. H. Schwartz, M. L. Kern, A. Goodman

The other papers in this symposium consider the long-reaching correlates of essays written at age 11. It is not so much that the words themselves are risky or protective, but rather that the words are markers of a variety of individual differences, including social class differences, intelligence, personality, attitudes, emotions, behaviours, and cultural aspects. Using data from the National Child Development Study (NCDS), this paper explores factors that predict language, across 10,500 essays. NCDS included a birth questionnaire, with information on household composition, parental social class, birthweight, and details on the pregnancy and birth, and follow up questionnaires at age 7 and 11, which included questions on social class, parental employment, financial circumstances, housing, health, cognitive tests, emotions, behaviors, school, and views and expectations. The survey items were used to predict linguistic features extracted from the age 11 essays, including essay structure (number of words, complexity, readability), phrases, and automatically derived topics (e.g., affect, friendship, occupation). The results point to the multiple factors that impact one's language, and suggest an intriguing set of hypotheses that might be tested in subsequent studies.

4G SYMPOSIUM

Cross-Study Comparisons: Experiences and Lessons from the CLOSER Consortium

Convenor: Alison Park, CLOSER, UCL Institute of Education, UK

The Cohort and Longitudinal Studies Enhancement Resources (CLOSER) consortium brings together expertise from 8 leading UK longitudinal studies, with the aim of maximising the use, value and impact of these studies nationally and internationally. The work undertaken and supported by this consortium covers diverse applied research areas and explores how the social and biomedical characteristics of the UK population have changed over time. Three of these areas will be discussed in depth in this symposium: body-mass index, mental wellbeing, and overcrowding. A fourth talk will provide commentary on the conceptual and methodological challenges that are faced in longitudinal cross-study research. The harmonisation and integration of data from multiple sources can offer many advantages, including the ability to assess generational changes by comparing data from different periods. However, this synthesis of data also brings with it many challenges due to divergences in variable coverage and definitions, as well as in the data collection methods used. Such divergences can also occur within studies over time, making longitudinal cross-study work particularly complex.

This symposium will provide first-hand accounts of researchers' experience in undertaking cross-study investigations, sharing important insights and practical guidance on the processes involved in performing such integrated studies of longitudinal change.

Socioeconomic Inequalities in Body Mass Index Across the Life Course in Four Generations: Evidence from the British Birth Cohort Studies

Presenter: Rebecca Hardy, MRC Unit for Lifelong Health and Ageing at UCL, UK

Co-authors: David Bann, Leah Li, Diana Kuh, William Johnson

Socioeconomic inequalities in body mass index (BMI) in children and adults are widely documented, but it is unclear how these have changed over time and across generations. We harmonised longitudinal data from 4 British birth cohort studies (born in 1948, 1958, 1970, and 2001) spanning over 60 years. We investigated associations between father's occupational social class, an indicator of childhood socioeconomic position (SEP), and BMI across life (and height and weight in childhood) and between adult SEP (own social class) and BMI in adulthood. No SEP differences in childhood BMI were observed in the 1946 to 1970 cohorts, but there were clear disparities in the 2001 cohort. These patterns are explained by changing inequalities in weight and height. Lower SEP was with lower weight in earlier born cohorts, but higher weight in the 2001 cohort, and lower SEP was associated with shorter height in all cohorts,

although the magnitude of the difference narrowed in more recent generations. A more disadvantaged childhood social class was associated with higher BMI in adulthood in both sexes in cohorts born from 1946 to 1970. Differences were of a similar magnitude in each cohort. Inequalities by adult SEP were also observed across both sexes in all cohorts. In women, these were stronger in the 1970 compared with earlier born cohorts. Our findings demonstrate that the obesity epidemic has disproportionately impacted on more socioeconomically disadvantaged groups despite initiatives aimed at reducing both social inequalities and obesity.

Childhood Circumstances and Adult Mental Wellbeing: The Role of Partnerships Based on Evidence from Three British Birth Cohorts

Presenter: Natasha Wood, MRC Unit for Lifelong Health and Ageing at UCL, UK

Co-author: Mai Stafford

Poor socioeconomic and psychosocial factors in childhood are associated with lower levels of adult mental wellbeing. Part of the association is explained by circumstances in adulthood, particularly socioeconomic circumstances. However, there is less evidence about the role of adult partnerships in the association, though partnership status and transitions are strongly associated with mental wellbeing. This paper will describe associations between childhood socioeconomic and psychosocial factors and partnership formation and dissolution, and the extent that partnerships explain the association between childhood factors and adult mental wellbeing. In the context of changes in marriage, divorce and cohabitation across the latter half of the twentieth century, we will also investigate whether these associations have changed across different generations.

Data were sourced from and harmonised across three British birth cohort studies: MRC National Survey of Health and Development (NSHD), born in 1946; National Child Development Study (NCDS), born in 1958; and British Cohort Study (BCS70), born in 1970. On each of these studies, childhood circumstances were measured prospectively up to the age of 16 years and partnerships status was collected through adulthood. Adult mental wellbeing was measured using the Warwick Edinburgh Mental Wellbeing Scale, which captures both hedonic and eudemonic aspects of wellbeing. Being in a partnership was strongly associated with higher levels of adult mental wellbeing on all three studies, but differences between partnered and unpartnered people were greatest in BCS70 and smallest in NSHD. We will also present findings on the association between childhood circumstances and partnership formation and dissolution, and the extent to which any association contributes to explaining links between childhood circumstances and adult mental wellbeing.

Social Contexts of Adolescent Well-Being in the UK Over Time

Presenter: Noriko Cable, University College London, UK

Adolescence is a critical phase in children's transition into being socially productive adults, challenging their physical and psychosocial resources to make this transition successfully. Social disadvantages, including overcrowding, are known to hinder this transition. Nevertheless, this well-known numerical indicator has not been explored contextually. This work harmonises data across three British cohorts to examine the impact that living in an overcrowded household can have on adolescent well-being. For children participating in the National Child Development Study (NCDS), 1970 British Cohort Study (BCS70), and Millennium Cohort Study (MCS), a ratio between people and rooms in their household (Persons-Per-Room, PPR), was used to harmoniously derive overcrowding status, with a $PPR > 1.5$ categorised as being severely overcrowded. Data on participating children's mental well-being was also harmonised across the cohorts, with cut-off points applied to determine emotional disturbance. Logistic regression was used to assess which component of overcrowding was associated with children's emotional disturbance.

The results show that the proportion of severe overcrowding was relatively small across the cohorts, but was smaller in MCS (9%) compared to NCDS (14.5%), while the proportion of under-crowding ($PPR < 1.0$) was around 60% in MCS compared to 43% in BCS70 and 25% in NCDS. All components of overcrowding (numbers of rooms, adults, and children), but especially numbers of children younger than the cohort members, were significantly associated with adolescents' emotional disturbance in NCDS. However, this was not the case for MCS. Overcrowding has complex associations with children's emotional disturbance,

and demographic change in the adolescent population over time adds another layer of complexity. Cohort studies that systematically collect rich social demographic data can help us better understand the determinants of adolescents' mental well-being.

Cross-Study Research: Evaluating the Opportunities and Obstacles in Integrating Longitudinal Data from Diverse Sources

Presenter: Alison Park, CLOSER, UCL Institute of Education, UK

Co-author: Dara O'Neill

Longitudinal research can offer valuable insights into the sequencing of social, psychological and biomedical phenomena across the lifecourse. Individual cohort and panel studies have helped to greatly improve both understanding and practice across diverse areas of research and intervention. In this presentation, we will discuss how the value such studies offer in isolation can be further extended when multiple studies are used in combination. The collation and synthesis of data from different sources can enhance our ability to assess changes in wellbeing and social factors across the lifecourse. The harmonisation of data from studies covering different time periods can also help researchers explore how changing socio-economic contexts can impact upon these social, psychological and biomedical phenomena. Moreover, the bringing together of different studies can foster greater interdisciplinary collaboration and inspire new avenues of research. However, cross-study research can also bring with it hurdles of its own, from data access challenges to the limitations arising from the retrospective nature of variable harmonisation. The CLOSER consortium has carried out a number of data harmonisation projects and is now building upon its learning to identify key challenges and solutions, and to improve the viability and ease of cross-study research. This presentation will provide an overview of the experiences of the consortium to date in undertaking and promoting such cross-study work, and discuss the learning established through this endeavour.

Parallel Session 5

5A PAPER SESSION: HEALTH BEHAVIOURS

How do Children Learn Risky Health Behaviours from their Social Environment? Research Evidence from the UK Household Longitudinal Study (UKHLS)

Noriko Cable, Andy Ross, Amanda Sacker, University College London, UK

Background: Observation of parental behaviours that are socially and culturally determined are long thought to shape children's co-occurring health-related behaviours. This work examined how children's clustering health behaviours would be associated with adults' clustering health behaviours in the same household, using the wave 2 data of the UK Household Longitudinal Study (UKHLS).

Methods: Information on adults' health-related behaviours (fruits and vegetable consumption, walking, smoking, and heavy drinking patterns) collected at wave 2 were used to create clustering patterns by Latent Class Analysis (LCA) while clustering patterns of children's health-related behaviours were generated similarly. Logistic regression examined the association with proportions of adults with each clustering health-related behaviours in the household and children's clustering health-related behaviours. Child's sex and age, children's harm awareness, single parenthood parental education and equivalised household income, area, parental ethnicity and religions were entered in a model as covariates.

Results: LCA identified 4 typologies of adult HRBs (Normative, lightly risky, moderately risky, risky) and 2 (Normative, risky) in children. All levels of adults' clustering risky behaviours were associated with child's risky clustering health-related behaviours (N=4,774); however, adults' moderately risky patterned behaviours were remained to be significant (OR7.59, p=0.032) after adjusting for covariates.

Conclusion: Adults' moderate level of risky behaviours can determine children's risky patterns of behaviours.

Moving Upstream: The Role of Tobacco Clean Air Restrictions on Educational Inequalities in Smoking Among Young Adults

Michael Vuolo, Laura Frizzell, The Ohio State University, USA; Elaine Hernandez, Indiana University, USA; Brian C. Kelly, Purdue University, USA

Education affords a range of direct and indirect benefits that promote longer and healthier lives, allowing people to avoid health hazards or adopt new behaviors following advances in medicine. We use tobacco clean air policies to examine how policies or interventions that “move upstream” by uniformly affecting everyone influence educational inequalities in health. Theoretically informed considerations suggest competing hypotheses, that upstream health policies either increase or attenuate the association between education and smoking behavior. To examine this question, we combine a comprehensive database of tobacco policies with the National Longitudinal Survey of Youth 1997 from ages 19 to 31. Using individual-level fixed effects models stratified by education, our results provide evidence that upstream interventions or policies, such as smoking bans, are particularly effective among young adults with the lowest levels of parental or individual educational attainment. These findings provide important evidence that upstream policy interventions may disrupt persistent educational inequalities in health behaviors, and they help assuage concerns that tobacco clean air policies increase health inequalities by stigmatizing those with the fewest resources.

Challenging the Study of Health Inequalities During Young Adulthood: Smoking in the Canadian National Population Health Survey as a Case Example

Thierry Gagné, École de Santé Publique de l'Université de Montréal (ESPUM), Canada; Katherine L. Frohlich, Université de Montréal, Canada; Amélie Quesnel-Vallée, McGill University, Canada

Background: Understanding the development of health inequalities during young adulthood requires consideration of the dynamic and age-graded nature of socioeconomic circumstances during this period. To illustrate this, we examine changes in social inequalities in smoking between the ages of 18 and 25.

Methods: 1,243 young adults were followed bi-annually in the Canadian National Population Health Survey. Using GEE models, we regress smoking on education, living arrangements, and relationship, employment, and student status. We examine main effects and effect modification by education and age by entering two- and three-way interaction terms and investigating marginal effects.

Results: Post-secondary education (PR = 0.85, 95%CI 0.74-0.97) was associated with a lower risk of smoking. Atypical living arrangements (PR = 1.16, 95%CI 1.02-1.32), not studying (PR = 1.13, 95%CI 1.02-1.24), and being single (PR = 1.29, 95%CI 1.09-1.53) were associated with a higher risk of smoking. These associations, however, significantly varied with age. The marginal effect of having a post-secondary education on the risk of smoking increased from -1.8 p.p. ($p = .53$) at ages 18-19 to -12.9 p.p. ($p < .001$) at ages 24-25. The marginal effect of living with children on the risk of smoking decreased from 30.9 p.p. ($p = .03$) at ages 18-19 to -2.4 p.p. ($p = .65$) at ages 24-25. The association of relationship status was modified by age and education: the marginal effect of being single on the risk of smoking among participants with post-secondary education changed from -7.6 p.p. ($p = .58$) at ages 18-19 to 14.0 p.p. ($p < .001$) at ages 24-25.

Conclusions: Average effects provide a limited understanding of health inequalities during young adulthood. Research need to further address the dynamic and age-graded nature of young adult socioeconomic circumstances by investigating how these associations change over time and across socioeconomic groups.

Birth Order and First Sexual Experience: Do Siblings Influence Adolescents Sexual Debut?

Marta Pasqualini, University of Rome La Sapienza, Italy; Amanda Sacker, Anne McMunn, University College London, UK

Background: According to the literature, birth order may encourage a specific role in the family system for individuals and set in train a dynamic that influences the development of specific behaviour.

Objectives: In this paper, we explore relationships between birth order, timing of sexual initiation and its consequences for risky sexual behaviours and sexual health.

Methods: We conduct a path analysis to simultaneously estimate direct and indirect effects. Data are drawn from the National Survey of Sexual Attitudes and Lifestyles (NATSAL-3)

Results: Later-borns show a higher O.R (p-value <0.001) compared with the oldest concerning both, early age at first intercourse and risky sexual behaviours outcomes. These associations are moderated when having siblings as the main source of information about sex is taken as stratification variable.

Conclusions: Youngest women and middle-child boys were significantly more likely to initiate sexual intercourse before age 15 compared with oldest born siblings and early sexual initiation leads to riskier sexual health outcomes. However, these associations are moderated when siblings are the main source of information about sex.

Contribution: Our findings have implications for preventive programmes aimed at promoting healthy sexual debut and behaviours over the life span. Results elucidate the potential role of siblings as confidants about sexuality, suggesting a protective aspect of communication between siblings that is able to moderate the association between early age at first intercourse, sexual risk behaviours and sexual health issues.

5B PAPER SESSION: SERVICES

Use of Health Care Service in the End-of-Life: A Case-Control Study Among Adults Born Before 1946 in Friuli-Venezia Giulia

Cristina Canova, Vito Parolin, Lorenzo Simonato, University of Padua, Italy; Paola Anello, Direzione Medica AULSS, Italy; Loris Zanier, Epidemiological Service, Udine, Italy

There is limited information about health care utilization (HCU) at the end of life in Italy. The objective of this study is to examine the impact of age and closeness of death on HCU in a population-based cohort of people aged 55+ years.

A matched case-control design nested in a cohort with linkage of administrative data was adopted. The cohort consisted of 411,812 resident in the Friuli Venezia Giulia Region (Italy) born before 1946 and alive in 2000 followed up to December 2014. 158,571 decedents (cases) in the follow-up period were matched by gender and year of birth to 1 control surviving at least 1 year longer. We evaluated hospitalization admissions (HA), drug prescriptions (DP), emergency department visits (ED), specialist visits (SV) and laboratory tests (LT) occurred 365 days before death (for controls the date of death of matched cases). Conditional regression models were used to estimate Odds Ratios (ORs) for HCU in cases compared to controls, adjusted also by Comorbidity Index and stratified by gender, age-classes and major causes of death. Decedents were significantly more likely of having at least one HA (OR=4), ED (OR=3.2), DP (OR=2.08), SV (OR=1.07) and LT (OR=2.04) than their matched surviving counterparts. The ORs were generally smaller in the oldest age group (95+) than in the youngest (55-74), except for DP and LT. HCU did not vary by sex, but it was higher in subjects who died for cancer. We found that closeness of death is an important predictor of HCU in adult age, but its influence varies between age groups. The high use of hospital-based services (HA and ED) during the last year of life may reflect a suboptimal quality of primary health care. Reducing acute care at the end of life requires a shift in health organization regarding end of life care and chronic disease management.

Why Families from Disadvantaged Backgrounds Make Less Effective Use of a Universal-Access Health System for Their Children's Care: An Inter-Generational, Longitudinal Analysis

Lisa A. Serbin, Kathleen Kennedy-Turner, Daniel Dickson, Dale M. Stack, Alex E. Schwartzman, Concordia University, Canada; Jane Ledingham, University of Ottawa, Canada

Introduction: Timely access to high-quality health care affects the long-term wellbeing of children, families, and communities. In Canada, a universal, government-funded healthcare system was put in place during the late 1960's, but socioeconomic differences in health and quality of care continue. The present study focused on parents' childhood histories of socioeconomic disadvantage and behavioral problems as long-term predictors of their young children's early health and care, via a cumulative "cascade" of life events.

Method: Participants (N=3800 parent/child dyads) were from the Concordia Longitudinal Research Project a 30-year longitudinal study of families from lower-income neighborhoods of Montreal, begun in 1976 when the current parents (G1) were between 7 and 13 years old (Schwartzman et al., 1985). Peer nomination (behavior problems, social status) and census data (neighborhood disadvantage) measures from the G1's childhoods, medical and educational records, and current neighborhood characteristics served as predictors. Outcomes included G2 health and service usage between ages of 1 and 6 years, drawn from government health records.

Results: Path models showed cumulative effects of G1 parents' childhood neighbourhood disadvantage, behavioral problems, early parenthood, adult disadvantage, and mental health problems, with a negative impact on G2 young children's early health problems (e.g., injuries; acute infections), and quality of health care (i.e., ratio of emergency to total care). Both direct and mediated effects of parents' childhood experiences on offspring health were found, as were gender differences. G1 education predicted better G2 health and quality of care.

Discussion: Although health care was affordable and available to these families, long-term effects of parents' histories on their children's early health and care were found via a cumulative cascade of life events. Increasing education among disadvantaged youth may have an intergenerational impact on health. Programs to optimize disadvantaged children's health and service usage should include parental support focused on early health-care needs.

Adverse Childhood Experiences and Out of Pocket Health Care Costs for Individuals and Households in the United States

Adam Schickedanz, Neal Halfon, Jose Escarce, Paul Chung, University of California, Los Angeles, USA

Background: Adverse childhood experiences (ACEs) have well-described downstream health correlates including higher risk of common chronic mental and physical illnesses. There is little evidence on the costs of these increased health risks to those who experienced more ACEs. This study estimates the differences in household out-of-pocket medical costs borne by individuals who have experienced more ACEs.

Methods: Household out-of-pocket (OOP) medical costs and retrospectively reported ACE information was collected through the Panel Study of Income Dynamics 2011 and 2013 Main Family Interview File and the linked 2014 Childhood Retrospective Circumstances Survey from 8,072 adults in families of any size and a subset of single and married adults in the United States. Generalized linear regression models were used to estimate adjusted out-of-pocket medical cost differences by ACE count. Mediation by chronic illness count and mental illness symptom score was assessed.

Results: Annual household total OOP medical costs were \$128.75 (1.10-fold, 95% CI 1.04-1.17) higher when adult respondents from all households in the sample reported 1-2 ACEs and were \$234.91 (1.19-fold, 95% CI 1.10-1.28) for those with 3 or more ACEs. Single individuals with a history of three or more ACEs spent an average of \$504.62 more per year overall compared to those with none -- a 1.83-fold (95% CI 1.42-2.24) increase in out-of-pocket medical expenses. Total household OOP costs were higher (\$461.30, 95% CI \$200.51-\$722.11) higher when both spouses in a married household reported 3 or more ACEs, compared to married households that reported none. Out-of-pocket medical cost increases were

found for inpatient, ambulatory care, and prescription/other medical services. Associations between total OOP costs and ACE score are partially mediated by chronic illness count (45%) and mental illness severity (33%).

Conclusions: Greater exposure to ACEs is associated with greater financial burden in adulthood in the form of higher adult out-of-pocket medical costs.

5C PAPER SESSION: COGNITION

Young Carers in Australia: The Influence of Informal Caring on Cognitive and Social Outcomes

Diana Warren, Australian Institute of Family Studies, Australia; Ben Edwards, Australian National University, Australia

Using data from the Longitudinal Study of Australian Children, we provide new evidence about the number of Australian adolescents (aged 14-15) who are providing informal care for a family member, how much time they spend doing caring activities and the types of care they provide. We also examine whether being a young carer is associated with poorer cognitive and social outcomes. There are substantial differences in cognitive outcomes among young people with caring responsibilities, compared to those who are not carers at age 14-15. These differences are apparent even in early childhood, and continue throughout the primary school years and into high school. NAPLAN Reading and Numeracy trajectories from Year 3 to Year 9 show that cognitive outcomes of those who subsequently became carers were lower, on average, from a young age. This result suggests that it is not only the caring activities that young carers are doing in their teens, but aspects of their early lives, such as having a household member with a disability or health condition that requires assistance, and/or having a parent with a high level of caring responsibilities for another household member, and the associated consequences for the household financial situation and home learning environment, that have had a considerable negative influence on their cognitive outcomes. For psycho-social outcomes, the findings are more positive. In fact, the evidence shows that young people who care for a household member are quite emotionally resilient. The one exception was for depressive symptoms for girls who spent 5 or more hours per week caring for a household member.

Effect of Retirement on Cognitive Function: The Whitehall II Cohort Study

Baowen Xue, University College London, UK

According to the 'use it or lose it' hypothesis, a lack of mentally challenging activities might exacerbate the loss of cognitive function. On this basis, retirement has been suggested to increase the risk of cognitive decline, but evidence from studies with long follow-up is lacking. We tested this hypothesis in a cohort of 3,433 civil servants who participated in the Whitehall II Study, including repeated measurements of cognitive functioning up to 14 years before and 14 years after retirement. Piecewise models, centred at the year of retirement, were used to compare trajectories of verbal memory, abstract reasoning, phonemic verbal fluency, and semantic verbal fluency before and after retirement. We found that all domains of cognition declined over time. Declines in verbal memory were 38% faster after retirement compared to before, after taking account of age-related decline. In analyses stratified by employment grade, higher employment grade was protective against verbal memory decline while people were still working, but this 'protective effect' was lost when individuals retired, resulting in a similar rate of decline post-retirement across employment grades. We did not find a significant impact of retirement on the other cognitive domains. In conclusion, these findings are consistent with the hypothesis that retirement accelerates the decline in verbal memory function. This study points to the benefits of cognitively stimulating activities associated with employment that could benefit older people's memory.

Non-Employment: A Risk Factor for Poor Cognitive Function and Cognitive Decline in Later Life?

Alison Sizer, Marcus Richards, Amanda Sacker, Rebecca Lacey, University College London, UK

The 2011 UK census estimated there were 7,536,300 people aged 65 – 84, and projected this would rise to 10,896,600 by mid-2032, an increase of 39%. Ageing is associated with declines in cognitive function, which is influenced by a range of factors operating across the life course, including employment characteristics. However, there have been few studies of the association between non-employment and cognitive function and decline in later life. Disuse theory suggests that cognitive function is vulnerable

after loss of cognitively stimulating activities. Periods out of employment may result in decrease of such cognitive activity, resulting in lower cognitive function and faster cognitive decline in later life.

This study investigated the association between non-employment and cognitive function and cognitive decline in later life using data from the English Longitudinal Study of Ageing (ELSA). It investigated if there was an association between duration of non-employment and baseline cognitive function and decline. Cognitive function of 4056 ELSA respondents (age ≥ 60) was assessed biennially between 2006-7 and 2014-15 using tests of verbal recall, letter search and verbal fluency. The percentage of the working life non-employed between leaving full-time education and the State Pension Age (SPA) was derived from the work histories reported in the 2007 life history interview. Gender specific growth curve models were used to examine trajectories in cognitive function over time for each non-employment category.

The analyses indicated that amongst men long non-employment durations were associated with lower baseline cognitive function, and faster cognitive decline, although this latter association was not statistically significant. These associations were partially explained by educational attainment, occupational complexity, psychological morbidity and lifestyle factors. In contrast, for women the analyses indicated that intermediate non-employment durations (10-40% of working life) were associated with higher baseline cognitive function, but provided limited evidence that cognitive decline differed according to non-employment duration.

5D PAPER SESSION: INEQUALITIES

Equity and Divorce: New Findings for Western Germany and the United States

Daniela Bellani, Gosta Esping-Andersen, Universidad Pompeu Fabra, Spain

The equity perspective predicts that the adoption of an equitable division of paid and unpaid work increases partnership stability because it guarantees a balance of partners' contribution to the relationship. However, the possibility that it could lead to a decrease of divorce appears to be implausible, as increased fairness in the couple has been linked with more partnership dissolution for a long time.

Analyzing the German Socio-Economic Panel (GSOEP) for West Germany and the Panel Study of Income Dynamics (PSID) for the United States between the mid '80 and the end of the '00s, we evaluate whether equitable dual earner couples have become more stable.

Our results show decreasing penalties in terms of marital stability related to the embracing of gender egalitarian practices. In particular, in the United States as well as in Western Germany the stability premium of dual earner couples that adopt an equal division of work has relatively increased in more recent marriage cohort; this couple arrangement has become the most stable in the United States. Our findings contrast with the predictions of the gender construction perspective, highlighting that a shift away from the traditional family model toward a more gender egalitarian partnership is no longer detrimental to marital stability in both countries.

Exclusionary Discipline: Racial Disparities in How Educators Evaluate and Punish Misbehavior

Jayanti Owens, Brown University, USA

School suspension and expulsion predict school dropout, juvenile detention, adult incarceration, and recidivism. Male students and non-white students in the U.S. face more exclusionary discipline: by grade 12, 20% of Black boys are suspended out-of-school, compared to 12% of Black girls, 9% of Hispanic boys, and 6% of White boys. Neither the sorting of minority students into poor and minority schools, a higher incidence of misbehavior among minority students, nor lower responsiveness to non-exclusionary sanctions, like tutoring and counselling, among minority students fully accounts for the racial gap. Scholars have proposed teacher bias as a possible explanation. But, the two existing experiments to isolate racial bias have found conflicting results. One study finds that teachers both perceive the same misbehavior more negatively and sanction this behaviour more harshly with minority students. The other study does not find support for the existence of bias through either mechanism. These conflicting results may arise from non-comparable groups of children (high schoolers versus pre-schoolers), distinct samples of teachers (k-12 teachers in California versus preschool teachers in New England), differential mindsets

and disciplinary cultures among participating respondents' schools, or experimental design effects. To help reconcile these conflicting results, this study helps disentangle these two potential mechanisms of bias using a video experiment with a sample of 1,000 K-12 educators from across the U.S. Results point to both more negative behavior evaluations and harsher recommended sanctions. However, educators' tendency to assign harsher disciplinary sanctions to minority students, especially Black boys and, to a somewhat lesser extent, Latino boys, is the most salient factor driving racial disproportionality in school suspension and expulsion. Results carry important implications for the uneven implementation of school discipline policies both at the teacher and administrative levels.

The Role of Stressful Life Events for Symptoms of Depression and Anxiety Across Time: Stress Causation, Stress Generation or Both?

Evelina Landstedt, Bruno Hägglöf, Umeå University, Sweden; Anne Hammarström, Uppsala University, Sweden; Ylva Brännström Almquist, Stockholm University, Sweden

Depression and anxiety are major public health issues. Research that advances the understanding of the antecedents and consequences of these mental health problems is therefore crucial. Stressful life experiences have been shown to be related to increased risk for both depressive and anxiety disorders. Generally, there is evidence in support of two psychological frameworks: 'stress causation' implying that stressful life events lead to poor mental health and, the 'stress generation hypothesis' suggesting that poor mental health increases the likelihood of future stressful life events. Few studies have concurrently explored both hypotheses and even fewer have included both depressive and anxiety related problems, especially across time from young adulthood into mid-life. The present study aimed to analyse the directions of associations between stressful life events and depressive as well as anxiety symptoms across time from age 21 to 42 years in Swedish men and women.

Data was drawn from three waves of the Northern Swedish Cohort Study (n=1,001). Stressful life events were measured through a composite index of four dichotomous indicators; Serious illness; Death; Conflicts and Tensions; or Unemployment. Depressive and anxiety symptoms were included in the models as latent constructs of six and five items respectively. By applying cross-lagged structural equation modelling, we tested the support for either the stress causation or stress generation hypotheses, or whether the direction was reciprocal. A reciprocal relationship between stressful life events and anxiety symptoms was identified - stressful life events increases the risk for developing anxiety symptoms which in turn constitute risk for future stressful life events. In the case of depressive symptoms, data supported the stress generation hypothesis - the level of depressive symptoms was positively correlated with future level of stressful life events. No gender patterns were identified. The authors call for discussion of contextual factors in understanding the findings.

Gender Differences in Educational Investment and Outcomes in Japan: Evidence from the Japan Child Panel Survey

Shiho Yukawa, Teikyo University, Japan; Hideo Akabayashi, Keio University, Japan; Kayo Nozaki, Kochi University, Japan

Objectives: Even though the mean gender gap in test scores in STEM fields (science, technology, engineering, and math) has been closing, it is known that there are still substantial differences in the gender ratios of top performing students in STEM fields (Xie & Shauman 2003, Pope & Syder 2010). A 2015 OECD report claims that, based on the country differences in gender achievement gap, gender education disparities are likely to stem from students' attitudes and non-cognitive ability, not from innate differences in aptitude. Yet, relatively little is known about how cognitive and non-cognitive ability interact dynamically over the course of development (Cunha & Heckman 2008), and results in the gender gap in STEM fields, especially in non-western countries. We present the first evidence about the gender gap in educational achievement in Japan, with emphasis on the gender-specific effect of parental socioeconomic status (SES), the child's own preferences to math, and self-confidence on the math test scores using longitudinal data of children.

Methods: We used the first nationally representative child panel survey, the Japan Child Panel Survey, which has collected both cognitive and non-cognitive outcome measures of respondent children with rich

information about educational investment and parental SES since 2010. We present a trajectory of the gender gap in academic outcomes and educational investment by SES. We used a regression analysis to illuminate the gender differences in the dynamic relationship of attitude toward math, non-cognitive ability such as self-confidence, and math test scores.

Results: There was no gender gap in mean math test score or top achiever ratio. However, female children tend not to prefer math at a significantly higher rate than males. (2) The income elasticity of after-school educational expenditure effect was larger for girls. (3) The strength of the dynamic relationship between non-cognitive ability and math test score was gender specific.

5E SYMPOSIUM

Bridging Genetic and Social Sciences for the Benefits of Interdisciplinary Health Research: Present Challenges and Future Directions

Convenors: Darya Gaysina, University of Sussex, UK; Melanie Bartley, University College London, UK
Recently, as a result of developments in DNA technology, significant progress has been made in discovery of complex genetic architecture of various human traits and disorders, from obesity to schizophrenia. However, genetic factors do not act in isolation from the environment, on the contrary genetic and environmental factors co-act together. First, genetic factors can non-randomly influence some environmental exposures via behaviour and personality characteristics. Second, genetic influences can be modified by specific environments. This interplay between genetic and environmental factors is critically important to consider in health research, in order to identify those at increased disease risk and to develop more personalised and effective preventive interventions. However, few attempts have been made to bridge social and genetic sciences for the benefits of interdisciplinary health research. The proposed symposium will: 1) facilitate the discussion between social and genetic scientists; 2) identify challenges in the contemporary genetic research that social scientists can address; and 3) to propose new ways of integrating social and genetic health research. In order to achieve these objectives, the symposium brings together four speakers with expertise in social and/or genetic health research, and a discussant who will lead the general discussion around this controversial and timely topic.

Genetics in the Context of Social to Biological Research

Presenter: Meena Kumari, University of Essex, UK
Social-biological research seeks to understand the interaction between social and economic circumstances and health. Biomarkers are often used in this research to identify different aspects of health with 'objective' data and the ability to examine underlying pathways of interest. Recently, there has been an increase in the use of genetic information in social research. Here genetic markers have been employed in three ways: 1) the genetic associations of social outcomes (socio-genomics); 2) to address gene-environmental interactions in behaviours and other outcomes, and 3) as instruments to better understand causality in associations of interests. In this paper, I will review the approaches taken to use genetic information in biological research, providing examples where genetic approaches have uncovered new biology and where they have not. I will discuss some of the issues that have emerged in analyses of broader social outcomes, for example small effect sizes and the implications of this for the use of genetics in social-biological research.

Genetics of Complex Diseases and Social Inequalities in Health

Presenter: Børge Schmidt, University of Duisburg-Essen, Germany
Since 2007 genome-wide association studies (GWAS) have been successful in discovering genetic variants related to common complex diseases such as obesity, diabetes or cardiovascular disease. While the potential impact of these results for disease prevention, prediction or personalized therapies has been discussed controversially, they have revealed that in addition to environmental factors complex diseases appear to be affected by large numbers of genetic variants with small individual effects. There has already been some debate whether these disease-related genetic factors may contribute to social inequalities in health in terms of an unequal distribution across socioeconomic strata. However, as empirical evidence strongly supports social causation as the main explanation for health inequalities, it seems very unlikely that health inequalities are directly caused by disease-related gene variants in a health selection

framework. Gene–environment interaction is a more promising approach to adequately incorporate genetic factors in already existing explanations of health inequalities. Here, socioeconomic position can act as an indicator of socially unequally distributed psychosocial and environmental health risks that modify the expression of genes. Such an approach also offers the opportunity to investigate the causal mechanisms of health inequality (How does social inequality get under the skin?) as well as the relevance of social factors in the study of genetic causes of diseases.

Challenges of Life Course Models of Gene Expression and Non-Experimental Data

Presenter: Michael Shanahan, University of Zürich, Switzerland

Co-author: Justin Chumbley

In the biological sciences, the study of environments and gene expression is based firmly on experimental designs. In life course research, this comparative framework is often not possible. For example, social isolation or physical victimization can be manipulated among non-human animals, but ecologically valid human studies are typically based on observed patterns in panel studies (i.e., probably non-random exposures). In this paper we consider a series of decisions (often involving trade-offs) to be made when relating early environments with later gene expression patterns. Although we discuss these concerns with reference to gene expression research and the specific example of bully victimization and later mRNA patterns, they apply to any life course study in which a causal relationship is posited between events early in the life course and putative outcomes later in the life course.

Common Mental Disorders Across the Life Course: From Genes and Environment to Gene-Environment Interaction

Presenter: Darya Gaysina, University of Sussex, UK

Common mental disorders (i.e., depression and anxiety) are a leading cause of disability worldwide. The recognition that both genetic factors (nature) and environmental factors (nurture) contribute to the aetiology of common mental disorders has led to a rapid growth in research of gene–environment interactions (G×E). The aim of this talk is to critically review evidence on the contributions of genes, environments and G×E to the risk of common mental disorders across the life course. The existing G×E studies have primarily focused on a limited number of candidate genes (e.g., genes involved in stress response). Overall, albeit with some conflicting findings, these studies have provided some support for the G×E effects on the risk of depressive and anxiety disorders. Future G×E studies would benefit from more systematic assessment of both negative and positive environmental influences from early period of life (prenatal and postnatal), multiple measures of mental health across the life course, and more robust analytical approaches to assess both main and interactive effects of genetic and environmental factors on common mental disorders.

5F SYMPOSIUM

Doing Better Than Expected: The Role of Individual Agency in Social Mobility Research

Convenor: Ingrid Schoon, UCL Institute of Education, UK

Family social background characteristics, such as parental education, income or social class, are important predictors of educational and occupational careers among their offspring. However, some young people do better than expected and achieve against the odds, while others do not achieve to the same level as their parents, experiencing downward mobility. In this symposium we examine the role of resource substitution across different cultural contexts, asking to what extent parental resources (money, status, education) on the one hand and offspring's own ability and motivation can substitute for each other. Social resources may compensate for low ability and motivation, thus avoiding downward social mobility, and vice versa own ability and effort may compensate for low parental background, enabling upward social mobility. Up to now there has however only been scarce empirical evidence to which degree this is possible, especially during the transition from school-t- -work – and across different cultural contexts. For example, societies vary regarding the degree of stratification in access to higher education and to professional careers. In countries such as Germany, young people are channelled as early as age ten into three tiers of education leading to low-skilled versus highly skilled occupations, while in the UK or the US access to professional careers is less structured. We would thus expect more or less opportunity for resource substitution to occur in different cultural contexts, and assume that there are structural limits

to which such substitutions can indeed compensate for disadvantage of one kind. The contributions to this symposium draw on longitudinal evidence, focusing on the transition from school to work, exploring the role of resource substitution in different cultural contexts, using representative data sources from the US, the UK, Germany and Switzerland. The findings suggest a significant role of individual agency as a resource factor, although its effectiveness in shaping individual attainment is affected by structural constraints.

Young People's Educational Upward Mobility in Switzerland: The Role of Social Relationship Quality and Teacher Assessment of Student Competencies

Presenter: Marlis Buchmann, University of Zurich, Switzerland

Sybille Bayard, Department of Education, Canton of Zurich, Switzerland; Irene Kriesi, Swiss Federal Institute for Vocational Education and Training, Switzerland

Intergenerational educational inheritance is particularly strong in highly stratified education systems (e.g., Switzerland), thus severely limiting offspring's opportunities to make it against the odds and achieve educational upward mobility. This paper raises the question of what helps young people to experience upward mobility at the transition to upper-secondary education in Switzerland by making it to baccalaureate schools (i.e., the highest status track granting access to universities) given that their parents' highest educational attainment has been either compulsory schooling or vocational and educational training (VET). Acknowledging that these young people are raised predominantly in lower and lower-middle class families, we investigate whether the quality of social relationships experienced in the family, at school, and at the intersection of family and school (i.e., parent-teacher cooperation) as well as teacher assessment of student work habits (i.e., volition, persistence, and willingness to exert effort) affect the likelihood of beating the odds. We argue that educational upward mobility is facilitated by such positive and cooperative relationships providing social resources, particularly as these relationships may also partially shape teacher assessment of student work habits. The analyses are based on the 2006 and 2009 waves of the Swiss longitudinal study COCON (www.cocon.uzh.ch), representative of the German and French-speaking parts of Switzerland. Respondents were 15 and 18 years old, respectively. Being a multi-informant study, data were also collected from the adolescent's primary care giver and his or her teacher. Findings show that the quality of social relationships in the family, at school, and at the intersection of family and school plays a mediating role, through teacher assessment of student work habits, for educational upward mobility.

Doing Better Than Expected: The Role of Individual Agency in Upward Educational Mobility

Presenter: Ingrid Schoon, UCL Institute of Education, UK

The aim of this paper is to examine the role of individual agency in upward educational mobility, asking if individual agency facilitates tertiary education participation and completion among young people from families where neither parent went to university. Parental education is generally recognised as a key predictor of educational attainment among their offspring, and young people without university educated parents are less likely than their peers with university educated parents to apply to college, and ultimately to enrol in and complete tertiary education. We ask if individual agency can act as a resource, compensating for lack of parental education exposure to tertiary education, enabling young people to do better than expected. The study is guided by an integrative developmental contextual model of individual agency taking into account person-context interactions. Agency is conceptualised as a multi-dimensional construct, involving indicators of intention, foresight, self-efficacy, valuing education and effort. The study also takes into account the role of parental educational aspirations and expectations for their children, testing for processes of co-regulation. Drawing on data collected for the Longitudinal Study of Young People in England (LSYPE) and Next Steps, a group of young people were identified who were the first in the family to attend university. Their experiences in the education system are compared with those whose parents had already obtained degree level qualifications. The results suggest that after controlling for gender, ethnicity, prior academic attainment, parental occupational status, income, family structure and housing conditions, indicators of individual agency predicted upward social mobility. In addition, we find evidence of coregulation - highlighting the crucial role of parental support for higher education in facilitating upward educational mobility.

Does Social Background Compensate for Missing Ability and Effort, or Do Ability and Effort Compensate for Low Social Background? A Comparison Between Early Secondary Education Tracking and the Later Transition to Tertiary Education

Presenter: Martin Diewald, Bielefeld University, Germany

Co-author: Bastian Mönkediek, Bielefeld University, Germany

Social background enables and constrains educational attainment. Offspring's own ability and motivation are undoubtedly important as well. Aside from additive relevance of both we look at whether children's ability and effort allow for compensating disadvantaged social backgrounds: Do (cognitive as well as other) skills and motivation not only provide opportunities aside from parental resources, but additionally become more important in the case that parental resources (education, occupational status, money) are low? Do they allow for beating the odds and overcoming the barriers set by a disadvantageous social origin? And vice versa: Does advantageous social background compensate for offspring's low ability and effort?

We compare both directions of possible compensatory relationships for two important transitions in the German educational system, namely sorting into different tracks of secondary education, and for the later transition from school to vocational training or tertiary education. We ask which of both compensatory relationships is more relevant than the other, and which one has more staying power through childhood and adolescence. Our data base is the first two waves of TwinLife, a twin family study comprising about 3,000 twin families in the second to fourth birth cohorts (age 11, 17, and 23 in wave 1). For ability and effort we make use of a culture fair test of intelligence as well as survey instruments to measure conscientiousness, self-efficacy, agreeableness, and risk aversion; for parents we consider educational as well as occupational attainment and household income. First results suggest that (1) not IQ and motivation but self-efficacy and conscientiousness can compensate for low social background, but that there is a stronger compensation effect of parental education for low ability and effort. Moreover, higher social origin compensating for low ability and effort seems more persistent than the opposite direction. These effects are genetically influenced, but to a much higher degree they are based on social forces.

Believing and Achieving: The Effect of Personal Motivation on Upward Educational Mobility and Income Attainment

Presenter: Mark Lee, University of Minnesota, USA

Co-author: Jeylan Mortimer, University of Minnesota, USA

Social scientists have described an origins-education-destination triangle, in which social reproduction is achieved across generations through education. However, some circumvent this triangle by attaining higher educational degrees despite having parents who did not.

This study examined whether personal motivation serves as a resource substitute for parental education in achieving upward educational mobility. Using data from the longitudinal Youth Development Study, four educational mobility groups were identified based on whether participants (aged 37-38 in the most recent survey) and/or their parents earned a bachelor's degree: stable low (i.e., no college degree for either), stable high, downwardly mobile, and upwardly mobile. Then, using multinomial logistic regression with stable low as the reference group, the authors calculated whether motivational factors (assessed when the participants were seniors in high school), such as efficacy and optimism, predicted upward mobility. Controlling race and parental income, several achievement orientations predicted upward mobility, although women's achievement depended more on these motivators than men's. Next, we examined the effects of educational mobility status, motivational variables, and controls on adult household income (age 37-38). Participants with a bachelor's degree (both upwardly mobile and stable high) earned more income than their less-educated peers. Adolescent educational plans, economic efficacy, optimistic life expectations, and intrinsic work values were associated with higher income for both genders, but did not diminish the predictive power of education. In conclusion, adolescent orientations to achievement may substitute for parental education in attaining higher education, particularly for women, indicating the power of motivation to enable "doing better than expected." To extend these analyses, the authors will examine the interrelations of intergenerational mobility status, motivations, and other occupational outcomes.

5G SYMPOSIUM

Poverty Dynamics and Child Well-Being: Findings from Taiwan Birth Cohort Study

Convenor: Tung-liang Chiang, National Taiwan University, Taiwan

This symposium consists of four papers providing a more comprehensive understanding of poverty across early childhood and its relationship with child well-being at school age. Paper 1 described child poverty dynamics in Taiwan and identified its risk factors. Paper 2 examined how the long-term experiences of poverty related to the overall outcomes of children, including general health and school achievement. Paper 3 and Paper 4 focused on specific outcomes of children: overweight/obesity and happiness, to explore their links with different types of poverty, respectively. Data for the analysis came from the Taiwan Birth Cohort Study (TBCS), a large-scale longitudinal study of children in Taiwan, with a nationally representative cohort of 24,200 babies born in 2005. Five waves of the surveys were conducted via face-to-face interviews with the mother or primary caregiver at 6 months, 18 months, 36 months, 5.5 years, and 8 years of age. The TBCS data collected information about health, development, academic performance of the children and socioeconomic and demographic characteristics of their families, which is a valuable resource for the analysis of child poverty with a dynamic view and health inequalities from a life-course perspective.

Risk Factors for Child Poverty Dynamics During the First Eight Years of Life

Presenter: Tung-liang Chiang, National Taiwan University, Taiwan

Co-author: Wan-Lin Chiang, National Taiwan University, Taiwan

Background: Children living in early poverty profoundly influences their health, development and life chances, and the impact depends on their experiences of poverty over time. Understanding the causes of child poverty dynamics is essential to develop end-child-poverty policies. Thus we aimed to depict the child poverty dynamics and identify its risk factors in Taiwan.

Methods: Data for the analysis came from the TBCS, with a nationally representative sample of 17,853 children who completed five waves of the surveys. Poverty was defined as a monthly parental income of less than US\$1,000. On the basis of each family's history of poverty from birth to eight years of age, we used length, timing and sequence to account for child poverty dynamics. Risk factors included parental and family characteristics. We conducted a multinomial logistic regression to test the relationship between risk factors and child poverty dynamics.

Results: Children were grouped into six groups: persistent poverty (2.6%), leaving poverty (6.1%), moving into poverty (6.5%), fluctuation in poverty (4.3%), transient poverty (4.8%), and never poverty (75.7%). Parental unemployment was the most important determinant of all types of child poverty, followed by lower educational attainment of parents and families of cross-border marriages. Single parent was highly associated with moving into poverty, but not significantly related to leaving poverty. Children with younger mothers had a relatively higher risk of leaving poverty, and it was not associated with persistent poverty. Fathers who were in fair or poor health only increased the risk of persistent poverty. High risk for persistent poverty was also seen among children who lived in families with more than three children or in rural areas.

Conclusions: The most effective strategies to combat child poverty would be those focused on parental employment and education, particularly for disadvantaged groups, such as families of cross-border marriages and single parent.

The Effects of Poverty Dynamics on Children's General Health and School Achievement at 8 Years of Age

Presenter: Wan-Lin Chiang, National Taiwan University, Taiwan

Co-author: Tung-liang Chiang, National Taiwan University, Taiwan

Background: The effect of poverty on child well-being has been well documented. However, most of previous studies have examined poverty at a single moment in time, which may misrepresent the poverty experiences of children and its impacts on children's outcomes. Thus, this study aimed to examine the influence of children's poverty status from birth to school age on their health and school achievement at age 8 in Taiwan.

Methods. Data for the analysis were obtained from the TBCS with a nationally representative sample of 17,853 children who completed the first (6-month) to fifth waves (8-year) of interview surveys and had available data of poverty histories. Poverty was defined as a monthly parental income of less than US\$1,000. The primary outcome variables were the mother-rated health and teacher-rated school achievement of children at age 8. Multivariate logistic regression was used to examine the effect of poverty dynamics on children's outcomes, adjusting for child, maternal and household characteristics.

Results: Children were grouped into six groups according to the history of poverty: persistent poverty, leaving poverty, moving into poverty, fluctuation in poverty, transient poverty, and never poverty. Children born and growing in poverty were more likely to have poor health and less than excellent school achievement than those who were of never poverty group. Specifically, the impact of persistent poverty on children's health was the most detrimental, followed by fluctuation in poverty. We also found that the moving into poverty group was more likely to have less than excellent school achievement than the others.

Conclusions: This study suggested that different patterns of poverty throughout childhood have heterogeneous effects on children's outcomes. Children's poor health at age 8 is highly determined by persistent poverty and instability of economic circumstances, while their school achievement is more sensitive to concurrent poverty status.

The Association Between Poverty Dynamic and Childhood Overweight and Obesity in Taiwan

Presenter: Yi-Fan Li, National Taiwan University, Taiwan

Co-author: Tung-liang Chiang, National Taiwan University, Taiwan

Backgrounds: Children who grow up with poverty are more likely to be stunting and wasting in developing countries, in contrast to being overweight and obesity in developed countries. This study aimed to test this obesity-poverty paradox in Taiwan, a country that has rapidly transited from developing to developed economy.

Methods: Data came from the TBCS with 17,510 children who completed five waves of interview surveys from six months to eight years of age. Children's overweight/obesity at eight years of age was defined by body mass index (BMI) classified as overweight/obesity (boys: BMI \geq 19.0, girls: BMI \geq 18.4), and non-overweight/obesity using age- and sex-specific criteria. Poverty dynamic was defined by six categories according to households' historical poverty. Logistic regression was used to estimate the odds of overweight/obesity after controlling children's sex and low birth weight.

Results: The prevalence of boys' overweight/obesity was 25.9%, while girls' overweight/obesity was 22.2%. Overall, the poverty dynamic was not significantly related to children's overweight/obesity at eight years of age, except the group of fluctuation in poverty. Both boys and girls who experienced poverty fluctuation were 1.3 times (95% CI: 1.1-1.7) more likely to be overweight/obesity at age 8 than were those who never experienced poverty.

Conclusion: Our results show no obvious association between poverty dynamics and childhood overweight and obesity in Taiwan. Further research is needed to understand mechanisms linking poverty to overweight and obesity.

The Effect of Poverty Dynamics on Children's Happiness at 8 Years of Age

Presenter: Yi-Han Chang, National Health Research Institute, Taiwan

Co-author: Tung-liang Chiang, National Taiwan University, Taiwan

Background: Lower socio-economic position is associated with poorer mental health status. However, few studies have explicitly focused on the effect of poverty on children's positive mental health outcome that goes beyond lack of depression, in particular from the perspective of experience of poverty in a long-term period. Thus, we aimed to examine the impact of poverty dynamics patterns of children from 6 months to 8 years of age on their happiness at age 8.

Methods: Data for the analysis came from the TBCS of 17,425 children who were born in 2005 and completed five waves of survey at 6, 18, 36, 66 and 96 months of age. Poverty dynamics patterns were grouped according to family's history of poverty from birth to eight years of age. Multinomial logistic regression was used to analyze the relationships between the poverty dynamics patterns and children's happiness at age 8. Sex, mother's mental health, father and mothers' education, parental marriage status and residence area were controlled in the model.

Results: Children were grouped into six poverty dynamic groups: persistent poverty, leaving poverty, moving into poverty, fluctuation in poverty, transient poverty, and never poverty. Compared with children who never experience poverty, children in the fluctuation in poverty group have the highest odds ratio to be unhappy at age 8 (OR=1.85 CI=1.47-2.33), following by the moving into poverty group (OR=1.76, CI=1.45-2.13), leaving poverty group (OR=1.70, CI=1.39-2.08), and persistent poverty group (OR=1.54, CI=1.13-2.10). We also found that mothers' mental health is positively associated with children's happiness.

Conclusions: Our findings suggest that children who grow up within an unstable economic circumstance or experience persistently poverty tend to be unhappy at age 8. Public health policy makers should focus on them to eliminate the health disparity among children.

Kids in Taiwan: National Longitudinal Study of Child Development and Care

Chien-ju Chang, National Taiwan Normal University, Taiwan

Kids in Taiwan: National Longitudinal Study of Child Development & Care is the first longitudinal study in Taiwan aiming (1) to examine the consistency and change in Taiwanese children's health and cognitive, language, social, emotional, and motor developmental trajectories, (2) to understand the home, child care, and school environments children are exposed to, and (3) to determine the long term impacts of family, child care, and school environments and experiences on children's development. Two representative samples, three-month-old children and three-year-old children, will be tracked over time until they are eight year olds. Using census register as the sampling frame, this project adopts stratified two-stage probability-proportional-to-size sampling method, with county and person as the primary and secondary sampling units respectively. Eleven waves of data will be collected when the cohort of the three-month-olds are at 3, 6, 12, 18, 24, 36, 48, 60, 72, 84, and 96 month old. With respect to the cohort of the 3-year-olds, they will be visited at home every year for six years in total. Data such as questionnaires completed by parents and teachers, observations of child care environments, individual tests on children's cognitive, language and motor development, and children's interviews will be collected in this study. Establishing a databank on child development in Taiwan will provide evidence-based information for policy making in children's health, welfare, and child care and will also provide important implications for early prevention and early intervention programs for young children.

Parallel Session 6

6A PAPER SESSION: METHODS

Methodological Issues in Studying the Effectiveness of Internet-Delivered Alcohol Interventions to Reduce Alcohol Misuse from Random Clinical Trials Using Individual Person Data Meta-Analysis

Adriaan Hoogendoorn, Riper H, Karyotaki E, Cuijpers P, Jan Smit, VU University, Netherlands

Internet-delivered alcohol interventions (iAIs) have been found to be effective in curbing adult alcohol misuse and are now recommended in professional guidelines. To evaluate their effectiveness and to obtain a more accurate estimate of the treatment effects and the role of potential moderators, we conducted an Individual Person Data (IPD) meta-analysis of Random Clinical Trials (RCTs).

A systematic literature search was conducted in order to retrieve relevant publications. If a study appeared suitable, the authors were invited to participate in the IPDMA-project and asked to make their data available. In the end, a total of 18 studies with 26 comparisons appeared pertinent. Data of participating studies were combined in a single data set. Having constructed a single data file appeared

to be a mere starting point, involving many methodological challenges as a result of study designs that differed in many aspects: inclusion criteria, number of treatment arms, size of the study in terms of the number of included persons (from very tiny to massive), number of post-intervention measurements, the timing of the post-intervention measurements, outcome variables and in different national standards. Also, the data analysis plan had to deal with several additional challenges: respondents dropping out of the studies and other forms of missing data, outliers and the choice between a one-stage and a two stage IPD analysis.

The paper discusses the process of providing estimates of the effectiveness of the iAI's and studies the extent to which these estimates depend on the methodological choices made by the researcher. In this study, a main focus will be on the choice between a one-stage and a two-stage IPD analysis, and on the assumptions about the missing data mechanism, evaluating these assumptions by sensitivity analyses.

Using Mediation Based on Counterfactuals to Examine the Effects of Educational Attainment on Criminal Offending in an At-Risk Sample

Kathleen Kennedy-Turner, Mari Shanahan-Somerville, Daniel J. Dickson, Dale M. Stack, Alex E. Schwartzman, Lisa A. Serbin, Concordia University, Canada; Jane E. Ledingham, University of Ottawa, Canada

Context: It is well known that education is negatively related to criminal activity. As such, education is typically controlled for in analyses examining the relation between risk factors (e.g., aggression) and criminal offending. However, this approach overlooks the intervening effects of education. Understanding of the mechanisms by which risk factors contribute to negative outcomes is important in policy decisions aimed at helping at-risk children. Thus, the goal of this paper was to examine the potential mediation effects of education on criminal offending utilizing an innovative statistical approach based on "counterfactuals".

Method: Given the binary nature of criminal charges (e.g., violence, property, and drug) and the potential interaction between education and aggression, the use of conventional product mediation analysis may produce inaccurate estimates of these indirect effects. Therefore, mediation based on counterfactuals (i.e., potential outcomes if aggression was absent) was used to assess the effects of education in the relation between aggression and criminal offending. To evaluate this, n = 3,651 (48.3% males) participants were selected from the Concordia Longitudinal Research Project, a 40-year prospective study of Canadians from lower-income neighborhoods in Montréal, Québec.

Results: As expected, education acted as an intervening factor between childhood aggression and criminal offending. For both sexes, this indirect effect was significant even after controlling for other childhood and adulthood factors related to offending. Implications for policy. Although it is known that education reduces the likelihood of criminal offending, it is rarely examined as an intervening factor for children at risk. Using advanced statistical techniques, it was observed that 23% of the effect from aggression to criminality was mediated by education. These results suggest that investing in resources to keep at-risk (e.g., aggressive) children in school will eventually lead to reductions in criminal offending. Such reductions will lessen the detrimental impact of crime on society.

Polygenic Risk Scores and Trajectories of Depressive Symptoms: The Benefits of Repeated Measures Analysis

Alex Kwong, Tim Morris, George Leckie, Kate Tilling, Hannah Sallis, David Manley, Nic Timpson, University of Bristol, UK

Background: Depression is a common mental illness with a complex aetiology. Whilst social predictors have been established, the role of genetics is complicated with many genes implicated in depression. Polygenic risk scores (PRS) have been used to explore depression, yet their predictive accuracy is inconsistent, possibly due to phenotypic measurement error and low power. We examine how longitudinal analyses using repeated measures of depression can address these issues.

Data: We used data from the Avon Longitudinal Study of Parents and Children (ALSPAC).

Methods: We explored the impact of a PRS based upon a GWAS of depressive symptoms (DS) using a threshold of $p < .0005 > .19$.

Discussion: Using repeat measures analysis may be one way to identify robust associations between PGS and DS. We also show that a PGS for DS, may also affect change in DS over time. Associations between PGS and DS at individual time points were inconsistent which may reflect phenotypic measurement error and a lack of power. Future research should supplement this by replicating in additional cohorts and across the life course.

Studying Complexity in Social Processes - Qualitative Comparative Analysis and Classification and Regression Tree Methods

Hannes Kröger, Nicolas Legewie, German Institute for Economic Research (DIW), Germany

The social processes that scholars study with longitudinal data often involve complex interactions between many variables. As a consequence, life course researchers face a dilemma: mainstream quantitative methods have difficulties in providing insights on complex interactions, whereas qualitative methods do not produce generalizable findings. Two approaches offer solutions to this dilemma: Qualitative Comparative Analysis (QCA) and classification and regression trees (CART). QCA was developed in the context of case-study research. It uses Boolean logic and aims to identify necessary and sufficient conditions for the presence or absence of certain outcomes. CART are mostly developed in the machine learning and computer science framework. Despite their different origins, both approaches focus analyzing complex combinations of variables and their impact on an outcome.

In our study, we compare the two methods regarding their ability to answer three kinds of research questions:

- 1) Accounting for all possible avenues of influence, which factor is the strongest explanatory factor for an outcome?
- 2) Are there combinations of factors that show systematic associations with a given outcome?
- 3) Are there necessary or sufficient combinations of factors for the outcome?

CART have the advantage that they can manage a much higher number of variables relative to observations and can determine cut-off values for classification empirically, in contrast to the need of QCA for theory-driven calibration. QCA is especially attuned to identifying combinations of conditions, and focus on necessary and sufficient relations between factors and outcomes. Both methods share the problem of overfitting when they are only used on a training data set. We illustrate the use of CART and QCA on three data sets: one simulated data set; one small-N dataset based on qualitative analysis of upward educational mobility; and one large data set which tries to determine patterns of biomarker combinations predictive of cardiovascular mortality.

6B PAPER SESSION: GEOGRAPHY

Proximity to Urban Green Space and Obesity in Older Adults: Evidence from Ireland

Anne Nolan, Seraphim Dempsey, Sean Lyons, Economic and Social Research Institute, Ireland

Given the worldwide trend of urbanisation, there has been increasing focus on the physical health impacts of living within these urban areas, and in particular the importance of ensuring adequate green space provision. The purpose of this paper is to examine the association between living in urban areas with different shares of green space and the probability of being obese. We employ a novel dataset which combines geo-coded data from the Irish Longitudinal Study on Ageing (TILDA) with green space data from the European Urban Atlas 2012. By combining individual-level information on green space accessibility with microdata which controls for confounding factors at the individual level, our approach represents an improvement on previous ecological approaches. A further advantage is the availability of objective measurements of obesity. A probit model is employed to estimate the probability of being obese, given the green space category of the TILDA respondent. We find evidence suggestive of a u-shaped relationship between green space and obesity, with those living in areas with the lowest and highest shares of green

space having a higher probability of being classified as obese (BMI \geq 30). While these findings confirm the importance of ensuring adequate levels of green space in high density urban areas, the unexpected result that those living in areas with the greatest shares of green space had similar levels of obesity to those living in areas with the lowest shares of green space, has potentially interesting policy implications regarding the accessibility of green spaces. We conclude that future research should incorporate the accessibility of green space (i.e. the network of footpaths) in areas which are more peripheral to urban centres and thus have the highest shares of green spaces.

Examining the Impact of Neighbourhoods and Schools on Children's Educational Academic Attainment

Tim Morris, Amy Sweet, David Manley, University of Bristol, UK

Fixed effects analyses have long been a mainstay in neighbourhood effects studies to explore the impact that place of residence has on health and socioeconomic outcomes free from unobserved confounding. However, one consequence of the fixed effect approach is to also control out the neighbourhood. In this paper we explore the benefit of a within-between random effects approach that provides fixed effects estimates while explicitly also modelling aspects of the neighbourhood. To do this, we examine the role that neighbourhoods and schools have on children's educational attainment.

Data is drawn from the rich UK birth cohort the Avon Longitudinal Study of Parents and Children (ALSPAC) focusing on the first 16 years of life. Educational attainment is obtained through linkage to the UK National Pupil Database. Cross classified multiple membership multilevel models are used to account for the independent clustering of children in neighbourhood and schools, and movement through neighbourhoods and schools during childhood.

Neighbourhood variation in attainment is low (4%) and accounted for by neighbourhood deprivation, for which there is a strong linear relationship with attainment. Children born into the most deprived decile of neighbourhoods score on average one grade lower than children from the least deprived decile. This relationship persists after controlling for a wide range of family level covariates. Moving between neighbourhoods is associated with poorer attainment, whereby children who move 3 times scoring on average a third of a grade lower than children who do not move. However, the impact of moving to a more affluent neighbourhood more than compensates for the deleterious impact of moving and associates with improved academic performance. In conclusion, our results demonstrate that exposure to neighbourhood deprivation is associated with poorer educational attainment, and that moving to more affluent areas is associated with better academic performance.

Structural Stigma and the Health and Wellbeing of Australian Sexual Minorities: Exploiting Geographic Variation in the Results of the 2017 Same-Sex Marriage Plebiscite

Francisco Perales, Abram Todd, The University of Queensland, Australia

International evidence indicates that non-heterosexual people experience poorer outcomes than heterosexual people across life domains, with ongoing debates about the aetiology of these differences. The minority stress framework draws attention to the importance of structural stigma, i.e. those structural conditions (e.g. legislative or cultural factors) that produce and reproduce hostile social environments towards sexual minorities and constrain their opportunity structures. Yet relatively few empirical studies have operationalised structural stigma and tested its influence, and the overwhelming majority of the emerging literature has restricted its focus to the US. In this study, we expand the available evidence to the Australian context, which constitutes an interesting case study due to the implementation in late 2017 of a national postal plebiscite on same-sex marriage legislation. We use geographical variation at the electorate level ($n=150$) in the share of 'Yes' and 'No' votes in the plebiscite as a proxy measure for structural stigma. This aggregate-level information is merged to individual-level data from the Household, Income and Labour Dynamics in Australia Survey, a large, nationally-representative study ($n\sim 15,000$). Results from multilevel regression models are consistent with expectations from minority stress theory and previous US studies: individuals who identify as lesbian, gay or bisexual (LGB) report comparatively worse life satisfaction, mental health and overall health in electorates with higher shares of 'No' votes. These results hold in the presence of a large set of individual- and aggregate-level controls, and for linear and non-linear specifications of stigma. In addition, we find that perceived social support mediates a large

portion of the effects of structural stigma on LGB outcomes. These findings have significant implications for policy and practice, highlighting the need for interventions aimed at reducing community levels of structural stigma and increasing social support to LGB populations.

6C PAPER SESSION: ECONOMIC CRISIS

Couple's Labour and the Economic Crisis in Spain. An Analysis of Work-Life Articulation in the Household from a Life Course Perspective

Núria Sánchez-Mira, Swiss National Centre of Competence in Research LIVES, Université de Lausanne, Switzerland

The paper analyzes the impact of the Great Recession on the household organization of labour of working-class couples in Spain. In a context of growing job insecurity, degrading working conditions and rising unemployment, we analyze to what extent key employment events in either of the partner's trajectories have a gendered impact on the (re)organization of labour provided by the members of the couple. The focus on working class couples, most hit by unemployment, and specifically male unemployment, appears particularly relevant from a gender perspective. We use information from 24 biographic semi-structured interviews, conducted separately with both members of 12 heterosexual working-class couples, with children under 14, living in urban areas in Spain. Life History Calendars were additionally used to better identify the interrelationships between key family and employment events in both partner's trajectories. A content analysis of the interviews was carried out with Atlas.ti.

The findings reveal that material constraints and unexpected events play a major role in the definition of the partner's interdependent trajectories. They also highlight a strong interrelation between male and female presences and absences in the spheres of production and reproduction. Not only do we analyze how key employment events (job losses, working time reductions, decreases in pay) have a gendered impact on the labour market participation of the members of the couple, but we also address the processes of legitimation and power relations underlying these employment "decisions".

We also observe a lack of correspondence between the effective labour market participation and economic contribution of the partner's, and the meanings and value these are attributed, particularly in status reversal couples (where women's employment status is highest). Finally, we show that changes in employment status entail a limited reorganization of domestic and care labour in the household, and reveal how power relations operate in this area.

Economic Crisis, Perceived Labour Market Opportunities and Subjective Wellbeing: Evidence from Spain

Roger Fernandez-Urbano, Nevena Kulic, European University Institute, Italy

It is often assumed that the presence and improvement of labour market opportunities translates directly into individual's positive perceptions of such opportunities, which in turn enhances their subjective wellbeing. Nonetheless, individual perceptions of labour market opportunities can be influenced by factors beyond the objective labour market opportunities (e.g. media, cultural settings, social background) and may additionally contribute to the level of subjective wellbeing. Using the only available Spanish panel survey (PaD, 2001-2012), this article investigates the relationship between individual perceptions of labour market opportunities and subjective wellbeing before and during the recent economic crisis and asks to what extent this relationship is mediated by individuals' social background. The Spanish case is relevant because Spain faced almost the highest increase in inequality and unemployment in Europe as a result of the crisis. Our results show that individual's positive perceptions of labour market opportunities progressively deteriorate and become a more relevant determinant of subjective wellbeing during the crisis, particularly for individuals of lower social backgrounds. We argue that this is the case because the opportunity of employment becomes much more valuable in times of economic crisis due to the difficulties in finding or keeping a job. Individuals from lower social background might be particularly affected 1) due to their initial disadvantage in access to material resources (i.e. income and savings), 2) because the crisis hit industries in which some of these people were working (i.e. construction).

Recovery from the Great Recession: A Lost Generation or a Period Specific Selection Process? A Cohort Study

Hans Dietrich, Institute for Employment Research (IAB), Germany

The Great Recession and its aftermath hit most of the European countries severely. Especially young people suffered by both an increasing risk of becoming unemployed and a prolongation of individuals' duration of staying unemployed. Already in 2010, politicians reactivated the term "lost generation" to characterise the situation of young people in the years of the great recession. In fact, youth unemployment increased until 2013 by numbers and rates, and the duration of unemployment experience prolonged. However, from a research perspective it is still unclear, in how far the recession cohorts (here the school leavers, who left the educational system in the years of recession) became a lost generation.

The term lost generation is used in a double sense here: experiencing a delayed entry into the working life and starting at an insecure or precarious level of employment with lower perspectives to recover. From that perspective, it is assumed the Great Recession worked as a cohort-specific obstacle, generation a lost generation. The alternative hypothesis is, the great recession worked period-specific and there a recovery from unemployment goes along with economic recovery. However, the Great Recession amplified the selection process whilst the school-to-work-transition. Thus, not cohorts in general but disadvantaged groups (poor school performance, migrants, etc.) suffered most from the years of crisis and experienced a precarious school-to work transition. Eurostat Labour Force Survey (LFS) data from 2005 to 2015 are employed to analyse individuals transition from school to work and their first years in the labour market before, whilst, and after the years of recession. Pseudo-panel techniques are applied to control for group specific characteristics (school performance, social background etc.) when analysing the school to work transition process.

First results support the period effect hypothesis, whilst there is less support for a lost-generation hypothesis.

Welfare State Change and the Poverty Risks of Labor Market Entrants in Germany

Sebastian Link, University of Hamburg, Germany

It is regarded as a general trend that employment careers in advanced economies have become more unstable. Yet, it is especially young people who are affected by these developments. More than prime age workers, who are still well protected "insiders" in many countries, entrants are confronted with growing risks on labor markets, such as unemployment, low wage jobs and non-standard employment. As they can bring about severe financial consequences, these disadvantageous early labor market positions not only coincide negatively with family formation processes, they may also cumulate over the life course. While the prevention of early labor market risks has been a focus of previous research, little is known about the possibility of mitigating their financial consequences. Welfare states play a key role in modifying the negative consequences of labor market risks – but they have also been shown to do so with different success for different groups. With regard to young people, it has remained unclear, whether passive or active social policies are more suitable to mitigate the negative consequences of risky labor market entries. Focusing on Germany, key questions guiding this investigation are twofold. First, how has the shift towards a stronger activation changed the financial consequences of early labor market risks and the risk of becoming poor? Second, how have inequalities between entrants and prime age workers evolved, as both groups should have been affected differently by this welfare state change? In order to analyze the impact of labor market risks on poverty in a changing welfare environment I make use of the longitudinal data of the German Socio-Economic Panel. By separating different income components I assess how strongly the welfare state buffers the consequences of labor market risks for the two groups (entrants and prime age workers) and in different significant time periods (1991-1997, 1998-2004, 2005-2014, 2015-2016).

6D PAPER SESSION: TRANSITIONS

Intergenerational Family Support and Youth Transitions to Adulthood

Diana Carvalho, CAPP/ISCSP-UL, University of Lisbon, Portugal

Changes in transitions to adulthood have been associated with changes in families and in the support parents provide young people. Studies have stressed extended parenting and its role in enabling young people to experiment their education, labor, and life-style pathways with fewer risks. But research in this area has been insufficient. Youth and family support has been mainly focusing on housing provision in the parental home, rendering invisible many other forms of instrumental and emotional support, such as monetary transfers, advice, companionship, household chores or general caring. Studies have mainly looked upon this support in a unidimensional direction, with young people as receivers, and thus support provided from young people to their parents or family has not been addressed. Finally, although a life course perspective has been increasingly adopted to study youth trajectories, its linked lives nature has not been fully explored.

Using quantitative (n=2942) and qualitative (n=70) data from a cohort study on young people born in 1990 in Portugal (Porto), assessed at age 13, 17, 21 and 24, the aim of the paper is to explore and challenge understandings of intergenerational support during transitions to adulthood. Data regarding leaving parental home and its reasons, as well as financial and social support received and contributed by young people, will be presented. Moreover, case studies that illustrate the role of young people in family support will be shown.

Overall results stress: i) the need to further explore conceptualizations around intergenerational family support; ii) how this support can stress the impact of family background and reproduce inequalities on transition to adulthood pathways, especially in contexts where other support mechanisms are scant; iii) the interdependence of family and its members, especially in contexts under economic crisis; iv) and, the recognition of young people also as an active agent in providing family support.

Young Adult's Life Trajectories in Montreal (Canada): Fresh Perspectives on Changes in Life Situations and Spaces During the Transition Towards Adulthood

Anaïs Dubreuil, Université Paris-Diderot, France; Julie Vallée, CNRS, UMR Géographie-cités, France; Katherine L. Frohlich, Ecole de Santé Publique de l'Université de Montréal, Canada

Over the past decade the mobility biography approach has been developed to capture changes in travel behaviours and mobility tools over people's life course. There is a lack of attention, however, on how life course interacts with changes in life spaces (defined as the set of everyday places where people go: home, work, study, grocery, leisure, etc.). Focusing on a young adult population living in Montreal (Canada), our research investigates how changes over the life course influence life spaces.

The period between adolescence and adulthood is a matter of interest: traditionally defined by key events such as graduating school, first job, leaving home, marriage, and first child, this period has become more complex with societal evolutions such as extending studies or returning to the family home. Nearly 1,400 young adults living in Montreal city and aged between 18 and 25 in 2011 (Interdisciplinary Study of Inequalities in Smoking – ISIS- cohort) have reported at two points of time (2011 and 2014) their life situations (school, work and family) and the location of their everyday places (home and daily activities). Semi-structured interviews have also been conducted in 2017 among twenty of these same young adults, selected according to the diversity of changes in their life situations. All of these mixed data have been analyzed with statistics, spatial analyses and qualitative content analysis to relate changes in life spaces (size of activity space, distance between residence and activity locations, etc.) with life key events (the traditional ones but also the more contemporary ones). Our results help to understand how differences in the access and use of urban resources are shaped during the transition towards adulthood.

Autonomy in Young Adulthood: A Longitudinal Study of How Various Life Events Impact on Levels of Autonomy

Jenny Chesters, Hernan Cuervo, University of Melbourne, Australia

Currently, the Australian labour market is characterised by high rates of both unemployment and underemployment, particularly for young people. Although the overwhelming majority of young people study well into their twenties to acquire tertiary educational credentials, their transition from education to employment tends to be precarious due to the increasingly competitive nature of post-industrial labour markets. Precarious employment is associated with precarity in other life spheres and with lower levels of autonomy. Using data collected by the Life Patterns Project, a longitudinal mixed methods study, we track changes in levels of autonomy of one cohort of young people who graduated from secondary school in 2006.

We focus on the decade from 2008 to 2017 when our participants were aged between 20 and 29 years. Our quantitative data enable us to examine how certain life events, such as leaving the family home, graduating with an educational qualification, embarking on a longterm relationship, or securing a permanent job, impact on levels of autonomy of young adults. Preliminary analysis shows that higher levels of autonomy are associated with higher socio-economic backgrounds, higher levels of education, living with a partner and being employed on a permanent, rather than a casual, basis. Our qualitative data provide insights into how young adults experience various life events and their understandings of how their lives are impacted by the economic and social conditions of contemporary Australia.

Describing 'First in the Family' University Graduates in England

Morag Henderson, Nikki Shure, UCL Institute of Education, UK

Widening Participation has increasingly become part of the UK educational policy agenda. Tony Blair announced the target to get 50 per cent of young people into HE at the Labour Party conference in 1999. This intention was further affirmed in the 2003 White Paper, 'The Future of Higher Education', which stated the aim to see 'all HEIs (higher education institutions) excelling in teaching and reaching out to low participation groups' (DfE, 2003: 22) and followed by the creation of the Office for Fair Access to widen participation and to manage bursaries (David, 2012). The Higher Education Funding Council for England (HEFCE) and the Economic and Social Research Council (ESRC) have both commissioned research projects to examine the reach of widening participation in HE and the best ways to fair access for all; however, this research has not focused on First in Family (FiF) students. 'First in Family' (FiF) refers to students who attend university (and obtain a degree), but whose mother and father did not.

This paper explores the characteristics of a recent generation of FiF students in England using a nationally representative dataset, Next Steps (formerly the Longitudinal study of Young People in England, LSYPE) to provide the first comprehensive, descriptive statistics on this group of young people. We begin by quantifying the proportion of FiF young people at age 25 as compared to their peers who either match their parents' education level (either with degree or without degree) or are downwardly mobile, meaning their parent(s) has a university degree, but they do not. Fifteen of the 24 Russell Group universities target these potential students in their Widening Participation campaigns, although little is known about the characteristics of FiF students in the UK. This paper will shed light on FiF students and how well this proxies existing measures of disadvantage. We will also compare FiF students to their peers who could have been FiF, but who do not go to HE and those who are not FiF to attend university in terms of their background characteristics including prior attainment and socio-demographic factors. Moreover, we identify whether young people who are FiF make different choices relating to subjects studied, institution type and whether to dropout. Our results show that that 16 per cent of young people aged 25 in 2015 in England are FiF, comprising nearly half of all university graduates of this cohort. We believe this statistic alone highlights the need for further research into this group of young people. Girls are more likely than boys to be FiF as are young people of Indian and Black Caribbean origin, in line with current and historical trends in HE participation. FiF pupils comprise a larger percentage of total dropouts at less selective institutions, but a smaller proportion of total dropouts at elite institutions. Our analysis indicates that being FiF is moderately predictive of other forms of disadvantage, but is still capturing some additional, separate form of disadvantage beyond economic disadvantage.

6E SYMPOSIUM

Long Term Consequences of NEET Status (Not in Education, Employment or Training): Evidence from the UK Longitudinal Studies

Convenor: Nicola Shelton, University College London, UK

The symposium will consider the long term consequences of NEET status (not in education, employment or training) using evidence from the UK Longitudinal Studies for Scotland, Northern Ireland, and England & Wales.

Using the UK Longitudinal Studies to Investigate Long Term Change

Presenter: Nicola Shelton, University College London, UK

This paper will introduce the linked administrative data longitudinal studies from Scotland, Northern Ireland, and England & Wales. The paper will highlight the potential for comparative analysis, discuss similarities and differences between the studies and introduce the data used for each of the subsequent papers in the symposium in order for them to focus on results. Arrangements for access to the data from the user support units and some key areas for research will also be highlighted sls.lscs.ac.uk www.qub.ac.uk/research-centres/NILSResearchSupportUnit/ and www.ucl.ac.uk/celsius

Three longitudinal data sets are available from the UK Censuses. Each take a sample of the population from Census data and follow it across time, linking in administrative data and with the capacity to link further data at low level geographies. The LSs are not based on voluntary surveys; they provide unparalleled coverage and sample sizes which allow research using risk factors and outcomes often unavailable from other sources.

The ONS Longitudinal Study has 40 years of follow-up 1971 – 2011. The study follows a 1% sample of the England & Wales population linked to births, deaths and cancer registration data. The Scottish Longitudinal Study has 20 years of follow-up 1991-2011, and linkages include health, education and environmental data (e.g. pollution), births, deaths, marriages. The SLS covers a 5% sample of the Scottish population. The Northern Ireland Longitudinal Study covers 28% of their population with 30 years of follow-up 1981-2011 and linkages to datasets such as health (including prescribing data), births, deaths, marriages and property data.

Risk Factors for Young People Not in Education, Employment or Training (NEET) in Scotland Using the Scottish Longitudinal Study

Presenter: Dawn Everington, University of Edinburgh, UK

Co-authors: Zhiqiang Feng, Lee Williamson, Kevin Ralston and Chris Dibben

The high level of young people not in education, employment or training (NEET) has been an important long-standing issue in Scotland. The experience of being NEET has long term detrimental effects. Identifying risk factors may inform interventions aimed at reducing the overall number of NEETs.

We use the Scottish Longitudinal Study (SLS) which provides a 5.3% representative sample of Scotland's population and is based around the Censuses of 1991, 2001 and 2011. The SLS include data for family members from the census, vital event data and since 2007, school census data. This allows us to study two cohorts of 16-19 year olds (the age range used in Scotland when considering NEET status) over a period of 10 years:

- people who were 6-9 years old at the time of the 1991 Census to the 2001 Census when they were 16-19 years old
- people who were 6-9 years old at the time of the 2001 Census to the 2011 Census when they were 16-19 years old

We used logistic regression to investigate whether NEET status when aged 16-19 years old is associated with individual, family and household characteristics measured 10 years previously, the highest school qualification, school behaviour, local area characteristics and whether they had had a teenage pregnancy.

These analyses found that several factors were associated with the likelihood of being NEET, with similar results for the two cohorts. These factors included having no qualifications, teenage pregnancy, school behaviour (2011 cohort) and household characteristics (2001 cohort, school census data not available) and living in an area where there was a relatively high level of young people NEETs.

An Investigation of Unemployment Dynamics Using the Northern Ireland Longitudinal Study

Presenter: Neil Rowland, Queen's University Belfast, UK

I use a large sample of longitudinal data from Northern Ireland to investigate whether men are 'scarred' by a previous experience of unemployment. I estimate whether their current chance of unemployment depends on whether they were unemployed or employed ten years ago, and test whether Catholic and Protestant men experience this scarring effect in equal measure. The data come from the Northern Ireland Longitudinal Study (NILS), a data-linkage project whose data spine is a circa 28% random sample drawn from an administrative database of all people registered for health services in Northern Ireland. The analysis is based on information derived from 1991, 2001 and 2011 Census returns that are linked to this spine and linked through time. Applying a dynamic random effects probit model to a panel of prime-age, male labour market participants, I find that men (regardless of religious affiliation) are roughly 4 percentage points more likely to be currently unemployed if they were unemployed rather than employed ten years previously. This result has important implications given the history of unemployment rate inequality in this society. On the one hand, because Catholic men were roughly 2.5 times more likely to be unemployed than Protestant men in 1991, proportionally more Catholic men today could be expected to suffer from this particular unemployment penalty. On the other hand, because the penalty does not depend on religious affiliation, they do not face additional disadvantage.

Exploring the Economic Outcomes of Young People Not in Education, Employment or Training (NEET) in England and Wales Using the Longitudinal Study

Presenter: Wei Xun, University College London, UK

Co-authors: Christopher Marshall, Rebecca Lacey, Stephen Jivraj, Nicola Shelton

Worklessness at early stages in the life-course may have long-term effects on health status in later life, through the accumulation of socio-economic disadvantage. There is some evidence regarding the shorter-term economic penalties and psychological morbidities that follow, however, the longer-term (decadal scale) consequences in terms of socioeconomic and health outcomes are unclear.

This study follows a representative sample of 1% of the England and Wales (E&W) census population aged 16-24, drawn at 1971 from the Longitudinal Study (ONS LS), and explores how their economic trajectories differ in a 40-year follow-up period by worklessness status at baseline.

Descriptive results suggest that NEETs in the sample went on to have divergent economic outcomes compared with their non-NEET counterparts. Men showed a certain degree of uniformity in economic activity trajectories: a large proportion (35%, $n=11186$) of men stayed in employment/studying throughout 50-year study period, while another 16% ($n=5186$) did so until age 46-54. Women, on the other hand, showed more diversity that could be interpreted as early and late interruptions in work/study. Gender-specific multinomial regression was used to explore the time-lag effects of previous economic activity states in determining "current" activities. The results suggest that worklessness at 16-24 years was still informative for predicting economic activity states up to late mid-life: in men not working with illness at 46-54, and in women unemployed/ill/retired up to 56-64, despite adjusting for more recent states.

In conclusion: in a large, representative, historical sample from E&W, worklessness at the age of 16-24 was found to inform economic activity status several decades later, even after adjusting for the more recent states.

6F SYMPOSIUM

Intergenerational Change in Health: Evidence from Systematic Reviews of Population Based Longitudinal Data

Convenor: Fivi Theocharaki, University College of London, UK

Health conditions can impact direct and indirectly public health policies, social outcomes, as well as economic policies and vice-versa. This symposium aims to present systematic reviews on different perspectives of these relationships. First, we will show how population health has changed within the last several decades in the UK. Then we will explore the determinants of population health from social and economic perspective. Lastly, we will probe how early life mental health can affect alcohol use in adulthood. We will conclude the symposium with a discussion session to explore issues within this field of research and future directions.

Post-War (1946-2017) Population Health Change in the UK: A Systematic Review

Presenter: Dawid Gondek, UCL Institute of Education, UK

Co-authors: David Bann, Ke Ning, George B. Ploubidis, UCL Institute of Education, UK; Emily Grundy, University of Essex, UK

The evidence on the theories of population health change (compression of morbidity/disability, expansion of morbidity/disability, and dynamic equilibrium) is highly inconclusive, for instance depending on the included health outcomes. This is the first systematic review of the evidence from a wide range of epidemiologic approaches on trends in morbidity/disability and health expectancy in adults in the UK from 1945 to 2017.

The searches were conducted separately for: (1) the trends in age-standardised or age-specific trends in prevalence of major non-communicable diseases and disability or functional limitations; (2) trends in health expectancy. The searched databases were MEDLINE (from 1946), EMBASE/EMBASE Classic (1947-2017) and Web of Science (from 1946). Due to high heterogeneity, the evidence was synthesised narratively. There were 36 studies reporting prevalence and 12 studies investigating trends in health expectancy. The age-standardised or age-specific prevalence of major chronic conditions (e.g., asthma, coronary heart disease, stroke diabetes) has increased over the last few decades or remained stable. These trends support the expansion of morbidity theory, which states that as the life expectancy is increasing people are likely to spend a greater number of years of their life with chronic condition(s). The evidence on trends in disability/functional limitations, as well as health expectancy was inconsistent, however also appearing to support the expansion of morbidity/disability theory, particularly among those aged 65 or over.

People live longer with morbidity/disability, which can cause serious economic burden on the health care system and the society as a whole. One consequence of increasing survivorship, together with population ageing, will be rising numbers of patients with comorbidity. Thus, more effort is needed to reduce the burden of disease and disability, possibly by better prevention practices.

The Association Between Childhood Mental Health and Alcohol Use in Adulthood: A Systematic Review

Presenter: Ke Ning, University College of London, UK

Co-authors: Dawid Gondek, George B. Ploubidis, University College of London, UK; Jennifer Maggs, Pennsylvania State University, USA; Praveetha Patalay, University of Liverpool, UK

Background: This review aims to summarize current evidence on the association between early life mental health and alcohol use in adulthood and explore whether this relationship varies with age and gender.

Method: Peer-reviewed publications were located by searching EMBASE, Medline, PsycINFO and ISI Web of Science. Prospective longitudinal studies reporting associations between early life internalizing and externalizing problems (before 19 years of age) and later alcohol use (after 16 years of age) were included.

Results: 15279 articles were screened; 52 articles met inclusion criteria, of which 44 investigated internalizing domains (15 using internalizing problems, 20 assessing depressive symptoms, and 14 examining anxiety symptom) and 22 focused on externalizing domain. Results observing positive,

negative and no association were evenly distributed across internalizing domains and alcohol use phenotypes, so no conclusive findings can be drawn. 19 out of 22 articles examining externalizing domain reported positive associations, and the likelihood of an association increased with more severe alcohol use phenotypes. No conclusion can be drawn regarding age and gender modifying effect on the association between externalizing and alcohol use based on current evidence.

Conclusion: Externalizing problems in early life exhibited a consistent and graded positive relationship with alcohol use in adulthood, but more studies exploring the age and gender effect in this relationship are needed. The association between internalizing and alcohol use remains inconclusive.

The Effects of the Economic Crisis on Population Health in Greece

Presenter: Fivi Theocharaki, University College of London, UK

Co-authors: Stergiani Tsoli, Benedetta Pongiglione, George B. Ploubidis, University College of London, UK; Lenka Benova, London School of Hygiene and Tropical Medicine, UK

Background: The aim of this study is to describe how the economic crisis affects population health and to explore long-term trends in Greece, something that hasn't been explored before.

Methods: The first step in our study is to identify all databases that could contain health data representative of the general Greek population. A systematic literature review was conducted in order to identify all articles (until September 2017) that contained databases with population level data regarding any health effect. The peer-reviewed publications were searched using MEDLINE, EMBASE/ EMBASE CLASSIC and Web of Science. Grey literature as well as articles published in Greek peer-reviewed journals will be taken into account.

Findings: After rejecting duplicates, 36,171 articles were screened. The number of articles that met the inclusion criteria is not yet finalized. In this first step, we would like to identify and record all databases pertaining to population level data and later on, depending on our results, to investigate if the crisis affects equally all socioeconomic strata of the population and to what extent observed differences in population health the years before the crisis and after are due to self-reported measures of health.

Conclusion: This review might produce for the first time a long-term view of population health in Greece and that will allow us to investigate the effect of the economic crisis. We will be able to identify population subgroups that are left more vulnerable due to the austerity measures as well as examine and how past decisions regarding the social structure in Greece affected population health outcomes.

Social Determinants of Health in British Birth Cohorts: A Systematic Review

Presenter: Stergiani Tsoli, University College of London, UK

Co-authors: Fivi Theocharaki, George B. Ploubidis, Alice Sullivan, University College of London, UK

Background: This systematic review looks to identify which social determinants have been used to evaluate their association on health and health behaviour outcomes in population-based British cohort studies and which of those determinants have been shown to impact health and health behaviour outcomes consistently.

Methods: A systematic literature review of papers published until October 2017 in MEDLINE, EMBASE and PsycINFO, Web of Science and CINAHL Plus will be conducted. Grey literature will also be searched. We will include studies that look at the effects of the selected social determinants on conditions that represent the leading causes of disability-adjusted years of life (DALYS) in the UK. Quantitative studies evaluating the association of social determinants on health and health behaviours and utilize data from the following population-based cohort studies the 1958 National Child Development Study, 1970 British Cohort Study, Next Steps (or Longitudinal Study of Young People in England (LSYPE)), Millennium Cohort Study, Avon Longitudinal Study of Parents and Children (ALSPAC) and the National Survey of Health and Development Cohort /1946 Birth Cohort (NSHD/ 1946BC) will be eligible for inclusion. We anticipate limited opportunity for a meta-analysis given the range of the social determinants and health outcomes

measured across the cohort studies. If a meta-analysis deems inappropriate, we will provide a narrative overview of the included studies.

Findings: In total, 7,648 papers were identified and 3,515 after duplicates removal. The final number of papers to be included in the review is yet to be finalised. The findings of this review will be key to the development of future research priorities on the topic and will provide valuable insight on the effects of social determinants of health in population-based cohort studies in UK.

6G SYMPOSIUM

Gender and Work over the Lifecourse: Dynamics of Employment, Income, and Family Life

Convenor: Mary Clare Lennon, City University New York, USA

Longitudinal and cohort data offer important opportunities for studying dynamic processes of employment and family life. This symposium will focus on the experiences of working women and men in the UK, USA, and Germany, and bring to bear both quantitative and qualitative analyses. The first paper, to be presented by Katja Möhring, examines working trajectories of women and their partners and their implication for wealth accumulation later in life. The second, presented by Juliana de Castro Galvão, uses decomposition methods to examine correlates of gender wage gaps across three cohorts in the United States. In the third presentation, Heather Joshi reports on gender wage gaps in the 1958 British birth cohort, the National Child Development Study, and shows a widening pay gap until middle age. The fourth paper, presented by Dinah Gross, exams women's work orientations over the life course, using retrospective qualitative data from the 1958 British birth cohort and highlights barriers to shifting work orientations in late mid-life. The discussant, Elizabeth Cooksey who has extensive experience studying work and family dynamics, will comment on the presentations.

The Interplay of Spouses' Work Trajectories over the Life Course and Gender Differences in Pension Wealth in Germany

Presenter: Katja Möhring, Mannheim Centre for European Social Research (MZES) Germany

Co-author: Andreas Weiland, Mannheim Centre for European Social Research (MZES) Germany

Previous research on women's life courses and their financial wellbeing in old age has mainly applied an individual perspective focusing on women's careers and childrearing solely. We use multichannel sequence analysis for a joint analysis of employment trajectories of women and their partners to apply a couple perspective on working trajectories and the development of pension wealth over the life course. Basis of our analysis is a combined dataset of the administrative records of the German pension insurance with the "Survey of Health, Ageing and Retirement in Europe" (SHARE) providing detailed life history data for individuals of the birth cohorts 1927 to 1965 in Eastern and Western Germany. The multichannel sequence analysis of the working trajectories of women and their partners (N=2,292) yields six distinct clusters of couple's employment histories. Main differentiating factors are the timing and the duration of the childrearing-related employment interruption in women's trajectories, patterns of re-entry into the labor market and the degree of discontinuity in their partners' employment histories. Overall, couples with both partners working achieve higher retirement wealth than male breadwinner couples as women with flexible careers are more able to compensate employment discontinuity or low wages in their spouses' careers. In cohort comparison, the number of traditional male breadwinner couples is decreasing in favor of couples with both partners in flexible careers and an increasing share of women taking up precarious employment at the end of their career. However, women's attempts to balance deficits in household pension wealth are less successful after long employment interruptions. Therefore, our results show a polarization of income pooling in couples with an increasing number of dual-career couples on the one hand and a growing share of couples with precarious trajectories and low pension wealth of both partners on the other.

Gender, Generation, and Race: A Study of Wage Gaps

Presenter: Juliana de Castro Galvao, City University New York, USA

Mary Clare Lennon, City University New York, USA

Since the 1990s, the average woman in full-term employment in the United States has earned close to 80% of men's earnings. While this is an improvement over earlier years, there has been little progress in recent decades. Studies of the determinants of the gender wage gap generally have focused on average wages of men and women, often ignoring the experience of different cohorts, different racial groups, and different levels of earnings. Our research takes an innovative approach to studying this issue by (1) comparing three different generations of women and men who came to working age in different historical periods; (2) examining racial differences; and (3) looking at gaps at different levels of wages. We use data from the Panel Study of Income Dynamics, the largest panel study of US residents begun in 1968, now following over 10,000 households. This presentation reports on preliminary results of the cohort analyses.

The Gender Pay Gap in two British Cohort Studies

Presenter: Heather Joshi, UCL Institute of Education, UK

Co-authors: Alex Bryson, David Wilkinson, and Kelly Ward, UCL Institute of Education, UK

The British national cohort study of 1958 has provided a unique body of information on men's and women's employment from school leaving to their mid 50's, a period (1974- 2013) of changes in the economy and in equality policies. At up to six surveys, the pay of men and women can be related longitudinally to their education, different trajectories of fulltime and part-time paid work, and evolving family responsibilities. The raw log wage gap, women's below men's, grew from around 16 points at age 23 to a maximum of 41 at age 42, (or 32 points taking current full-time employees only). The gaps narrowed a little in later life. After describing patterns of participation and the work history of those in employment, we estimate a simple descriptive growth model of hourly pay of employees, related to their education and experience of full and part-time employment. In preliminary results, such 'human capital' variables [statistically] account for much of the widening pay gap as the cohort approached mid-life, but the unexplained 'residual' gap remains substantial, a little under 20 points for surveys from age 42 onwards, for full-timers as well as all employees. In a parallel analysis of the 1970 birth cohort up to age 42, where the raw wage differentials start smaller, but grow, the residual component at 42 is similar - unexpectedly given policy developments. We examine the pay gap for subsets of cohort members who have had minimal employment interruptions, have only ever worked full-time or who have had no children and investigate how far current family responsibilities account for pay differentials. We also compare our results with earlier work on the 1946 cohort. We use a newly constructed data set on wages, employment and education for the two cohorts, descriptively, without attempting to model underlying causal processes.

How do Women's Work Orientations Change Over the Life Course?

Presenter: Loretta G. Platts, Stockholm University, Stockholm

Co-authors: Jack K. Day, University of Texas at Austin, Dinah Gross; NCCR LIVES, University of Lausanne, Switzerland; Ignacio Madero-Cabib, Universidad de Chile, Chile; Anna von Ow, Institut de recherche et documentation pédagogique, Switzerland

This paper contributes to a body of work which examines how women's work orientations and evaluations of their paid work change over the life course. We analysed interview transcripts for a sub-sample of 110 women drawn from the National Child Development Study (1958 British birth cohort). The paper focuses on retrospective evaluations of the working lives of women who entered the labour market with an instrumental work orientation from the vantage point of mid-late life. Our findings indicate that some women found more intrinsically satisfying paid work later in their working lives, in some cases after gaining additional qualifications. Women also identified barriers to attempting shifts in work orientations. The results show the dynamism of women's labour market trajectories in late mid-life and highlight the interest of studying women's changing work orientations throughout the life course.

Parallel Session 7

7A PAPER SESSION: HEALTH

Income Inequality Affects the Psychological Health of Only the Financially Vulnerable

Dario Spini, Nicolas Sommet, Davide Morselli, NCCR LIVES, University of Lausanne, Switzerland

According to the “status anxiety hypothesis” (Wilkinson & Pickett, 2010), income inequality prompts status anxiety, which causes deteriorating psychological health. However, oddly, income inequality was repeatedly found to exert a similar influence on vulnerable (e.g., low income) and advantaged (e.g., high-income) groups. This similarity may be explained by the fact that most extant research used income level as a moderator. We argue that financial scarcity should have a more reliable diagnostic value of economic vulnerability. We hypothesize that income inequality should predict feelings of unhappiness and psychological health problems only among individuals experiencing financial scarcity (having unsustainable debts). To test this idea, we used multilevel modeling to analyze secondary temporal data, pooling the within-cluster effects of income inequality to avoid problematic cross-cluster comparisons. First, using repeated cross-sectional international data (World Values Survey: 146,034 participants from 105 country-waves; 1994-2014), we found that the within-country effect of national income inequality on feelings of unhappiness was limited to individuals facing financial vulnerability ($\approx 25\%$ of the surveyed world population). Second, using longitudinal national data (Swiss Household Panel: 14,784 participants from 15,595 municipality-years; 1999-2013), we found that the within-life course effect of local income inequality on psychological health problems was also limited to individuals facing financial scarcity ($< 10\%$ of the national population). This effect operated through a decrease in financial coping. The findings suggest that income inequality by itself may not be a problem for psychological health but rather is a catalyst for the detrimental consequences of financial vulnerability.

Differences in Adult Health Between East and West Germans After a Regime Transition Through Social Change: The Role of Childhood Socialization

Katharina Loter, Oliver Arránz Becker, Martin Luther University Halle-Wittenberg,

The great majority of children born and raised in the socialist former GDR experienced uniform educational conditions during childhood, irrespective of their families' socioeconomic situation. Within few years after the German unification, health care in Eastern Germany came up to the level of Western Germany, yet for the “children of the former GDR”, early childhood influences may continue to affect their adult health in specific ways. The first aim of this study is to investigate the impact of early childhood socialization on adult health, by contrasting two divergent pre-unification work-family regimes in Germany. Further, by including aggregate data on external childcare we examine the role of the regimes: first, as a mechanism generating differential health trends over time; and second, as a potential leveler of health inequalities by maternal education. The analyzed sample from the German Socio-Economic Panel (SOEP) consists of individuals born in the former FRG and GDR between 1962 and 1984 who reached the age 30+ in year 2014. We compare self-rated health trajectories of individuals socialized in the former GDR vs. FRG by maternal education using random-effects group-specific growth curves with age as process time. Using a longitudinal life course perspective, we show that despite similar health of individuals raised in the GDR and FRG during middle adulthood (ages 30-40), their health trajectories start to diverge in later adulthood. Surprisingly, young adults socialized in the GDR also display, on average, poorer health than their FRG counterparts. These findings point to detrimental middle-term and long-term health consequences of living under a socialist regime, drawing on the case of German reunification as a natural experiment. Further, different shapes in the social health gradient are observed depending on maternal education and level of institutional childcare, suggesting a continuous impact of work-family regimes boosting health-related inequalities throughout the life course.

Growing Up Unequal: Objective and Subjective Inequality in the Lives of Children

Anika Schenck-Fontaine, Duke University, USA; William Schneider, Northwestern University, USA

Economic inequality has profound effects on children's wellbeing. The prevailing narrative has focused on how inequality shapes the investments parents make in their children, but little research has investigated the implications of inequality for parenting quality. Moreover, the extant research has focused on objective inequality, though subjective perceptions of inequality may also influence parenting. Addressing these gaps, we examine the influence of objective and subjective inequality on two indicators of parenting quality, corporal punishment attitudes and authoritarian parenting attitudes. First, we ask whether objective measures of inequality are associated with increases in attitudes favoring harsh and authoritarian parenting. Next, we ask whether subjective perceptions of inequality have a unique and distinct influence on parenting attitudes compared to objective inequality. Last, we parse whether there are differences by race and child age to identify whether some children are at greater risk of experiencing harsh or authoritarian attitudes. We use the data from U.S. General Social Survey (GSS) from 1986 to 2016 combined with regional Gini index data to answer these questions. The GSS allows for analyses over an extended time period and is nationally representative. We restrict our sample to respondents who are parents of children 0-18 years old (N = ~8,500 parents) and draw on two measures of respondents' opinion about parenting: (1) sometimes children need a good hard spanking; and (2) how important is it that children obey their parents. We find that being a parent in the middle of the income ladder, but not the bottom, is associated with increased odds of approval of spanking. Subjective perceptions of inequality (social class, living standard, and income gaps) are also associated with increased odds of approval of spanking. Our findings suggest that subjective inequality may be an important predictor of parenting above and beyond objective markers.

Common Mental Disorders and Midlife Cognitive Function: The Role of Childhood Cognitive Ability and Educational Attainment in Vulnerability and Resilience

Darya Gaysina, Amber John, University of Sussex, UK

Common mental disorders (depression and anxiety) are associated with poorer cognitive outcomes in later life. However, not everyone with history of mental health problems have impaired cognitive function in later life (i.e., cognitive resilience). To date, relatively little is known about what factors may protect those with common mental disorders from poor cognitive ageing. The present study aims to explore the role of childhood cognition and educational attainment in cognitive vulnerability and resilience in face of common mental disorders.

Data from the National Child Development Study were used. First, the cumulative index of common mental disorders episodes at ages 23, 33, 42, and 50 was derived. Second, resilience was defined as better than expected cognitive function in three domains: memory, verbal fluency, and information processing at age 50 (residual approach). Finally, the effects of childhood cognition (age 11) and educational attainment (age 23) on resilience in three cognitive domains were tested using a series of linear regression models.

The majority of participants never experienced case-level symptoms of common mental health disorders, with ~20% experiencing them at least once. The residuals approach allowed us to assess variation in three cognitive domains while taking into account differences in the exposure to common mental disorders across the life course. Higher level of general cognitive ability at age 11 was associated with better than expected midlife memory, verbal fluency and information processing speed. Similarly, higher level of educational attainment at age 23 was related to midlife cognitive resilience.

Findings suggest that those with experiences of case-level symptoms of common mental disorders vary in cognitive resilience in midlife. Higher levels of childhood general cognitive ability and educational attainment are related to better midlife cognitive function and may protect versus negative cognitive outcomes later in life.

The Influence of Supply-Side Factors on the Utilisation of Primary Healthcare Services and Health Outcomes in the Older Population: Evidence from the Irish Longitudinal Study on Ageing (TILDA)

Gretta Mohan, Anne Nolan, Sean Lyons, Economic and Social Research Institute, Ireland

Equity in access to healthcare services is regarded as an important policy goal in the organisation of modern healthcare systems. Equity of access implies that individuals with equivalent health needs can avail of equivalent health services. Physical accessibility to health facilities is recognised as a key component of access. The World Health Organisation describes physical accessibility as the availability of good healthcare services within reasonable reach of those who need them, when they need them.

To investigate the extent to which the supply of primary care services is a determinant of utilisation of services and health among older people in Ireland, information from the Irish Longitudinal Study on Ageing (TILDA) is used and expanded upon using Geographical Information System techniques. TILDA is a nationally representative survey of the community dwelling population aged 50+ years in the Republic of Ireland.

The first wave began in 2009/10, interviewing 8,500 people. The survey captures a rich array of demographic and socioeconomic information on respondents, as well as subjective and objective measures of health and eligibility status for public healthcare entitlements.

The geographical location of respondents in TILDA afforded the creation of three 'access' variables:

1. Distance (km) from respondent's residential address to the nearest General Practice (GP), providing an indication of geographical proximity.
2. The number of GPs within walking distance of a respondent's residence, demonstrating the density of providers.
3. The number of residential addresses served in the catchment area of the nearest GP, representing the workload/capacity of their local GP.

The estimated effect of these supply-side variables on GP attendances and a number of health indicators from regression modelling, adjusting for individual characteristics, will be presented. These results will be of interest to healthcare practitioners, planners and policymakers in Ireland and internationally.

7B PAPER SESSION: HEALTH BEHAVIOURS

Stability and Change in Early Childhood Eating, Sleeping, and Video-Viewing in Relation to Risk for Obesity: Longitudinal Analyses of the Growing Up In New Zealand Cohort

Sarah Anderson, Ohio State University, USA; Cameron Grant, Susan Morton, University of Auckland, New Zealand

Many studies suggest household routines for children that support having family meals, ensuring adequate sleep, and limits on screen-viewing time can help prevent childhood obesity. Although these routines are common in families with young children, little is known about their stability over time.

The Growing Up in New Zealand Cohort Study (GUiNZ) includes more than 6000 children born in 2009-2010 and recruited in pregnancy. One month prior to the 24m home visit, primary caregivers responded by phone to questions about their child's eating, and at 24m they reported how many hours the child typically slept, number of night-time awakenings, and time spent watching television/videos. When children were 45m, primary caregivers were again interviewed by phone using the same or similar questions. At 54m, children's height and weight were measured and obesity defined using the IOTF cut-points. Hours of night-time sleep at 24m was moderately correlated with sleep at 45m ($r=0.38$), as was hours of television/video viewing ($r=0.39$). Eleven percent of children were picky eaters at 23m; however, half of those who were picky at 23m ate 'everything or most things' by 45m, and 1 in 3 children with limited variety at 45m had not been picky at 23m. Seventeen percent of children awakened ≥ 2 times per night at 24m and 7% of children did so at 45m. Most children who woke frequently at 24m no longer did so by 45m, and 1 in 5 of the children who awoke frequently at 45m had slept through the night at 24m. At 54 months, 9% of children were obese. Although routines at 45m were predicted by earlier behavior, there was much change between 23 and 45 months. Additional longitudinal analyses will explore the

interrelationships and sociodemographic context of these routines and their relationship to children's weight status at 54m.

Impact of the Smoke-Free Public Places Legislation on Inequalities in Youth Smoking Uptake in the UK

Philip Anyanwu, Peter Craig, Srinivasa Vittal Katikireddi, Michael Green, MRC/CSO Social and Public Health Sciences Unit, University of Glasgow, UK

Introduction: Smoke-free public places legislation in the UK (implemented in 2006 in Scotland, and 2007 for the rest of the UK) has been successful in reducing second-hand smoke exposure and its sequelae, but little is known regarding its impact on youth smoking uptake. Understanding the impact of smoke-free legislation on youth smoking behaviour in the UK may add to the evidence on the success of this policy.

Methods: Longitudinal data from the British Household Panel Survey and Understanding Society study (1994-2016), were examined with discrete-time event history analyses. Each youth contributed data for five observations (74,960 person-years) representing ages 11-15. Outcomes were smoking transitions (initiation of smoking, progression to occasional or daily smoking, or quitting). Missing data were handled with multiple imputation. Analyses were adjusted for the year-on-year trend, youth sex, age, country, and the number of years since last smoking progression.

Results: Youths aged 11-15 years were less likely to initiate smoking (OR: 0.39; 95% CI: 0.32-0.49) after the smoke-free legislation than before. The implementation of the smokefree legislation had no significant impact on progressions to occasional smoking (OR: 0.86; 95% CI: 0.61-1.21), daily smoking (OR: 0.72; 95% CI: 0.43-1.22), and quitting (OR: 0.63; 95% CI: 0.39-1.03). Inequalities in youth smoking initiation were similar before and after the smoke-free legislation, with youths whose parents had no qualification more likely to initiate smoking than those with a degree (OR: 1.46; 95% CI: 1.26-1.69). Inequalities in progression to occasional, daily or quitting smoking were also similar before and after the smoke-free legislation.

Conclusion: Smoking initiation was reduced in youths in years following the implementation of smoke-free public places legislation in the UK. Socioeconomic inequalities in youth smoking uptake neither widened nor narrowed after the smoke-free legislation.

From Occasion to Obsession: A Longitudinal Study on How Technological Uptake and the Proliferation of Computer Mediated Communication (CMC) Have Shaped Communication Since 2005

Laurie Dempsey, University of Nottingham, UK

The ability and desire to utilise technology to engage with others via Computer Mediated Communication (CMC) has developed drastically since 2005. Scholars argue that technological changes have facilitated increased CMC usage, in turn changing communication within relationships. Some academic debates position CMC as hindering intimate communication; others present CMC as a tool that optimises the day-to-day management of communication within relationships, near and far (Lanier, 2010; Turkle, 2011; Rainie & Wellman, 2012; Chambers, 2013). This paper aims to understand how the process of technological uptake and the proliferation of CMC have shaped communication since 2005.

UK communications regulator Ofcom is constantly gathering data on UK media usage and attitudes. This paper is based on an analysis of Ofcom's Media Lives video footage, tracking 19 participants through annual in-depth interviews since 2005. Through this longitudinal approach, I observe technological changes and uptake, building an understanding of how they may shape individuals' perceptions and usage of CMC over time and how they factor into their everyday lives. This longitudinal approach is absent from current academic literature, providing a unique insight into how individuals develop their usage over time, the reasons for this, and the role this behaviour has in shaping their communications.

This study observes CMC going from an occasional, novel form of communication to an indispensable relationship facilitator. I conclude that, as technology becomes increasingly converged, efficient and portable, users grow more open to embracing CMC into their daily routine. Increased CMC channels mean

that users are able to communicate via multiple platforms, creating their own 'rules' and expectations about what is deemed appropriate behaviour. CMC usage is shown to alter how individuals communicate on a day-to-day basis, with the longitudinal element of this study allowing for this process to be captured and understood in a manner previously unattained.

Young Carers in Australia: The Influence of Informal Caring on Cognitive and Social Outcomes

Diana Warren, Australian Institute of Family Studies, Australia; Ben Edwards, Australian National University, Australia

Using data from the Longitudinal Study of Australian Children, we provide new evidence about the number of Australian adolescents (aged 14-15) who are providing informal care for a family member, how much time they spend doing caring activities and the types of care they provide. We also examine whether being a young carer is associated with poorer cognitive and social outcomes.

There are substantial differences in cognitive outcomes among young people with caring responsibilities, compared to those who are not carers at age 14-15. These differences are apparent even in early childhood, and continue throughout the primary school years and into high school. NAPLAN Reading and Numeracy trajectories from Year 3 to Year 9 show that cognitive outcomes of those who subsequently became carers were lower, on average, from a young age. This result suggests that it is not only the caring activities that young carers are doing in their teens, but aspects of their early lives, such as having a household member with a disability or health condition that requires assistance, and/or having a parent with a high level of caring responsibilities for another household member, and the associated consequences for the household financial situation and home learning environment, that have had a considerable negative influence on their cognitive outcomes.

For psycho-social outcomes, the findings are more positive. In fact, the evidence shows that young people who care for a household member are quite emotionally resilient. The one exception was for depressive symptoms for girls who spent 5 or more hours per week caring for a household member.

Personality and Body Weight Across the Lifespan

Angelina Sutin, Antonio Terracciano, Florida State University College of Medicine, USA

Personality traits capture individual differences in thinking, feeling, and behaving. These tendencies emerge early in life, persist across adulthood, and are associated with many aspects of physical and mental health. The present research examines the association between two personality traits – Neuroticism and Conscientiousness – and body weight across the lifespan. Neuroticism is the tendency to experience negative emotions and vulnerability to stress and Conscientiousness is the tendency to be organized and self-disciplined. In Study 1, children (N=4,153) rated by their parents as higher in Neuroticism related traits and lower in Conscientiousness-related traits at age 4 gained more weight over a 10-year follow-up compared to children rated as more emotionally stable and conscientious. In Study 2 and Study 3, these traits were likewise associated with heavier body weight in young and middle adulthood (N=5,150) and middle and older adulthood (N=1,988). These associations may be due, in part, to less engagement in physical activity (Study 4: meta-analysis of 16 samples, total N=126,731). Study 5 suggests an intergenerational transfer such that mother's personality is associated with her child's weight, which may be due, in part, to the feeding strategies (e.g., restriction) she uses with her children (N=2,928). These studies thus demonstrate that two aspects of trait psychological functioning are associated with weight across different stages of the lifespan and suggest initial mechanisms that may contribute to the associations.

7C PAPER SESSION: ECONOMIC CRISIS

Why Did So Many People in the UK Support Brexit in the 2016 Referendum? The Role of (Longterm) Area-Level and Personal Economic Struggle

Stefanie Doebler, University of Liverpool, UK

The result of the 2016 British EU referendum is one of the most impactful events of British post-war history and there is a growing body of studies on the question why so many people in the UK supported 'Leave' in the referendum. Previous contributions thus far looked at macro-level voting patterns and macro-level deprivation and some authors studied individual level relationships using used electoral survey data. Due to a lack of combined data linking the macro-level of residential areas, and households within areas with the individual-level, the interplay between the two is still unexplored. This paper combines 8 waves of the UK Household Longitudinal Study (UKHLS) with area-level time-series data on productivity, wealth and socio-economic deprivation and immigration to look at relationships between long-term individual and area-level deprivation, political agency and support for Brexit in Britain in 2016. The main findings are firstly that area- and individual level deprivation have strong direct effects on people's likelihood of supporting Brexit and secondly that individual socio-economic deprivation eroded the sense of political agency of many of those who supported Brexit. The findings help understand mechanisms that can explain the political success of 'take back control' narratives of the 'leave campaign and confirm that austerity and (long-term) economic struggle were indeed key factors that influenced people's sense of political agency and opinions towards Brexit.

Family Trajectory, Indebtedness and Subjective Assessment of the Financial Situation: The Swiss Case

Boris Wernli, FORS, University of Lausanne, Switzerland; Caroline Henchoz, University of Fribourg, Switzerland

We examine in a first step the impact of three transitions related to the family construction (formation of the union, transition from cohabitation to marriage, birth of child/ren) on behaviour related to indebtedness (debts and overdue bills). As we have no indicator to measure over-indebtedness, we study in a second step the influence of those life-events on subjective indicators of the financial situation (satisfaction and manageability) in order to better understand the economic difficulties among indebted people. We use therefore the Swiss Household Panel dataset, a multi-thematic annual household panel based on a random sample from the Swiss resident population with a longitudinal approach (fixed effects). Results show that most of the considered steps of the family construction have an impact. The creation of a couple increases the probability of contracting debts, as well as the marriage for already cohabiting persons. In the contrary, the birth of children is associated with a lower indebtedness. In the contrary, overdue bills stay at the same level after the creation of a couple or a marriage, but increase drastically after the birth of children.

Concerning subjective indicators, we can notice a shrinking level of financial satisfaction after the birth of children for both indebted women and men, and after the creation of a couple, only for men in the latter case. Furthermore, the manageability of the financial situation of indebted individuals shows a general deterioration after the three studied transitions.

All in all, our preliminary results show that the different steps of the family construction do not necessarily raise the indebtedness of individuals in Switzerland, even if the birth of children tends to increase financial difficulties. Furthermore, the deterioration of the subjective evaluation of already indebted individuals through the steps of the family construction reflects their increased financial requirements.

Explaining Poverty: Biographical Events as Class Mechanisms

Felix Bühlmann, Amal Tawfik, NCCR LIVES, University of Lausanne, Switzerland

In recent years it has become common in poverty research to oppose class based and event based explanations of poverty. While some researcher still think that social class is the root of most of poverty in the Western World, others argue that new social risk, which can be conceptualised as biographical trigger events, have led to a "democratisation" of poverty. Scholars attempting to combine class and event based analyses of poverty come to contrasting results: while certain scholars find that some events have effects unrelated to class, others argue that events only fortify existing class differences. We argue

in this article that these diverging findings result from problems of operationalisation of key concepts such as the household, class and events. We propose cross-classified multi-level growth models in order to come to grips with some of these issues. Based on the longitudinal data of 7339 individuals and 5316 households from the Swiss Household Panel 1999-2016, we analyse the combined influence of class and events on poverty. Our results show that indeed both class membership and biographical events such as conjugal separation, retirement, childbirth or unemployment are important risk factors for poverty. A systematic analysis of interactions between class and those events shows that in all cases, biographical events deepen class differences which are already in place. This is why class and trigger events should not be conceptualised as competing, but as interacting explanations of poverty. It is in fact through biographical events that class becomes an explanation of poverty. Biographical events are class mechanisms.

Manage Your Money, Be Satisfied? The Role of Income and Money Management Practices in Financial Well-Being of Swiss Couples

Nevena Kulic, Alessandra Minello, European University Institute, Italy; Sara Zella, Oxford Institute of Population Aging, UK

There is a difference between who brings in income, who spends and manages the money, and who finally benefits. Focusing on the Swiss context, this paper studies to what extent the individual satisfaction with financial situation in the household is associated with the relative earnings of the partners, the role of both partners in the management of economic resources within the household and the gender dimension of such relations. We rely on ten waves of the Swiss Household Panel (from 2004 to 2013). The sample contains 9972 observations on 1810 heterosexual couples; fixed effect panel models are employed in the analyses. Three interesting findings emerge: A change in the composition of total income in favour of women's earnings has an immediate positive effect on their financial satisfaction. Men's reaction (to their lower bargaining power) is reflected through a decline in their financial satisfaction but only once the female partner earns more than 29% of the total income.

Second, the independent management regime additionally increases level of women's financial satisfaction. On the contrary, male management of household economy increases men's financial satisfaction net of the composition of household income. Third, there is an important interaction between income and management regimes: women gain most with their earnings when separate money management is in place. On the contrary, the negative impact of women's financial contribution on men's financial satisfaction is alleviated when the man manages the household economy. We conclude that management regimes may be an important mirror of dominant gender norms and ideologies in the Swiss society and can alter inequalities leading to accumulation or compensation of disadvantage within the household.

7D PAPER SESSION: MORTALITY

Life Course Exposure to Death of a Child: Consequences for Racial Disparities in U.S. Mortality Risk

Debra Umberson, Rachel Donnelly, University of Texas at Austin, USA

Numerous studies show that the death of a close family member increases risk for mental and physical health problems, as well as mortality. Recent research further reveals substantial race differences in exposure to the death of a close family member in the United States. Black Americans are substantially more likely to lose a close family member (child, mother, father, sibling, spouse), to lose a family member earlier in the life course, and to lose more family members over the life course. Prior research has not considered whether life course exposure to the death of a family member contributes to well-documented racial disparities in health and mortality risk in the United States. In this study, we focus on life course exposure to the death of a child and ask whether such exposures contribute to racial disparities in mortality.

We will analyze data from two nationally representative datasets from the U.S. to examine the impact of differential exposure to death of a child on mortality risk, and whether that differential exposure contributes to the race gap in U.S. mortality. The National Longitudinal Survey of Youth-1979 (NLSY-79) data will be used to assess the impact of death of child from the early adult life course through age 50.

The Health and Retirement Study (HRS) data will be used to assess the impact of death of child from age 50 to age 80+.

Overall, preliminary results from analysis of the HRS data indicate that exposure to the death of a child accounts for twenty percent of the black-white difference in mortality, even net of variables known to contribute to race differences in U.S. mortality rates. These findings point to the significant role of bereavement in contributing to racial disparities in mortality in the United States, and suggest that a legacy of loss in the U.S. black community contributes to continuing cycles of reduced life expectancy for black Americans.

Is Cancer Risk in Adulthood Associated with Experiences of Poor Quality Parenting in Childhood: Evidence from the English Longitudinal Study of Ageing (ELSA)

Panos Demakakos, Jane Biddulph, University College London, UK; Georgios Chrousos, University of Athens, Greece

Objectives: We examined whether experiences of poorer quality parenting in childhood are associated with an increased risk of cancer at older ages.

Methods: We used data from the English Longitudinal Study of Ageing spanning between 2002 and 2013. The sample comprised 4471 community-dwellers aged ≥ 55 years in 2007. We measured parenting retrospectively using the seven-item Parental Bonding Instrument (PBI). Poor quality parenting was defined as low levels of parental care and high levels of parental overprotection. We derived scores for maternal and paternal care and overprotection as well as a parenting summary score. We used logistic and Cox proportional hazard regression to model the associations between the parenting measures and cancer prevalence and incidence, respectively.

Results: The parenting summary score was associated with an increased risk of incident all-site cancer in men, but not in women (median follow-up 5.3 years). Decreasing paternal care and increasing paternal overprotection were strongly associated with an increased risk of incident all-site cancer. Maternal care and overprotection were also associated with incident all-site cancer. Similar associations were observed in incident skin cancer in men, while increasing paternal overprotection was additionally associated with an increased risk of incident colorectal cancer. The association between parenting and cancer prevalence followed a different pattern with experiences of poorer parenting in childhood, especially increasing paternal overprotection, being associated with an increased risk of prevalent all-site and colorectal cancer in women, but not in men. Adjustment for covariates explained a small part of these associations.

Conclusions: Older adults who reported experiencing poorer quality parenting in childhood appeared to be at increased risk of cancer. Our findings are novel, pertinent to the vast majority of the population and can inform prevention strategies and early life interventions. They also add to the debate about the role of psychosocial factors in cancer causation.

Inequalities in Time from Stopping Work to Death: Findings from the ONS Longitudinal Study, 2001 to 2011

Emily Murray, E. Carr, P. Zaninotto, J. Head, B. Xue, M. Fleischmann, N. Shelton, University College London, UK; Stephen Stansfeld, Queen Mary University of London, UK

State pension eligibility ages (SPA) in the United Kingdom are chosen so that on average citizens receive a state pension for a third of their adult life. However, government use of average life expectancy to calculate SPA ignores the wide variations in life expectancy that occur across socio-economic groups. This study has used the ONS Longitudinal Study (LS), a 1% sample of the population of England and Wales. LS members who were aged 50 to 75 at the 2001 census, and censored linear regression, were used to estimate mean differences in the amount of time older workers live between stopping work and death, by occupational social class. For those LS members who stopped work ($n=89,330$), after adjusting for age in 2001 and gender, there was a social gradient between lower occupational social class and average years between stopping work and death for the three 'lower' classes only [mean difference vs professional: skilled manual -2.2 (95% confidence interval: -3.1, -1.4), partly skilled -3.0 (-3.8, -2.1),

unskilled -3.4 (-4.3, -2.4)]. When associations were adjusted for age of stopping work, there was a graded relationship between lower social class and less time lived after stopping work. This relationship was seen for LS members who self-reported good and not-good health in 2001. We estimated that if the entire study had stopped work at age 65, professional women and men in good health would on average live another 23.7 and 22.0 years, respectively, while unskilled women and men in not good health would live another 18.2 and 16.4 years; a difference of 5.5 years. Policymakers should assess whether a government pension age policy based on average life expectancy is appropriate, given the current levels of inequality in our society.

Evolving State-Level Policies and Opiate-Related Mortality in the United States, 1999-2017: A Fixed Effects Analysis

Michael Vuolo, The Ohio State University, USA; Brian C. Kelly, Purdue University, USA

An unprecedented opiate crisis has emerged in the U.S., and state governments have responded over time by implementing numerous policies to disrupt this trend. Currently, the full efficacy of each of these policies is unknown beyond examinations of a limited set of policies, localities, or years. We use causal statistical methods and a robust longitudinal policy database to examine the impact of relevant policies on opiate fatal overdose from 1999 to the present. For policy data, we employ the new Prescription Drug Abuse Policy System, which identifies all U.S. state-level policies related to strategies intended to reduce opiate use, dependence, and overdose, such as naloxone access, prescription drug monitoring programs, pain clinic prescribing restrictions, Good Samaritan immunity, and medical marijuana. We combine this state-year database with mortality data from the U.S. Center for Disease Control and sociodemographic measures from the U.S. Census Bureau. We then determine which opiate-related policies have been effective in curbing fatal overdose through the use fixed effects modeling, a causal method for observational data well-known for the elimination of unobserved heterogeneity such that estimators are robust to any observable or unobservable time-invariant omitted variables. We find that in years when a state has an accessible prescription drug monitoring program, the state's total opiate overdose death rate is 0.91 per 100,000 lower than years without one ($p < .001$). These results demonstrate that state-level policy implementation, particularly those that track prescribing behavior, has been effective in curbing overdoses.

Mortality After Non-Traumatic Spinal Cord Injury: Evidence from a Population-Based Rehabilitation Cohort in Switzerland

Anne Buzzell, Jonviea Chamberlain, Martin Brinkhof, Swiss Paraplegic Research, Switzerland

Background: Non-traumatic spinal cord injury (NTSCI) has a lasting impact on an individual's health and functioning, and subsequently significantly reduces survival. NTSCIs, unlike traumatic SCIs result from distinct pathologies that are often developed later in life (i.e. neoplasms, vascular disorders). With an aging demographic, evidence suggests an increasing incidence of NTSCIs in Switzerland. Currently, limited evidence is available concerning survival and risk factors for mortality after NTSCI.

Objective: To investigate acute and long-term survival, and to identify factors associated with mortality of individuals living with an NTSCI in Switzerland.

Methods: Longitudinal data from the Swiss Spinal Cord Injury (SwiSCI) cohort study were utilized, including individuals admitted for NTSCI within one of the five specialized rehab centers in Switzerland between 1990-2011. Risk factors for mortality were calculated using flexible parametric models.

Results: Between 1990 and 2011, 1,363 individuals were diagnosed with an NTSCI and admitted for specialized rehabilitation. Of these individuals, roughly 60% were male, 88.5% had an incomplete lesions and 64.9% were paraplegic. Length of stay (LOS) increased with lesion severity and was most variant between NTSCI etiologies, with 43.5% of vascular disorders staying 6 months or longer in specialized rehab. Individuals with a complete lesion had a more than doubled risk of mortality in comparison to those with an incomplete lesion (HR=2.14; 95% CI= 1.69-2.71). The highest risk of mortality was observed for NTSCIs due to malignant neoplasms (HR=6.57; CI= 4.99-8.65) and infection (HR=1.38; 95% CI= 0.94-2.03), compared to the reference group.

Discussion: Risk factors for reduced survival and premature mortality include NTSCI etiology and lesion severity. Future investigation is thus needed that analyzes comorbidities contributing to premature mortality, in order to identify modifiable risk factors towards which prevention efforts can be aimed.

7E SYMPOSIUM

Health and Wellbeing Across the Life Course

Convenor: Jack Lam, University of Queensland, Australia

Research has shown that health in early life may have long-term implications due to the accumulation of advantages and disadvantages over time. The papers in this symposium examine potential pathways through which these processes occur, and opportunities for new insights from administrative data that provide information on whole populations. As highlighted, mechanisms through which health inequalities manifest may be due to exposure to adverse social environments, such as parental smoking, with ensuing implications for children's health behaviour. Health inequalities may also accrue via educational pathways if children in poor health have weaker attachments to schooling, with consequences for school achievement levels. Transitions that occur "off-time", such as teenage childbearing, may also lead to poorer health outcomes in later years. Additionally, individuals make choices every day, around food and exercise, and understanding correlates of decision-making behaviours can help us better understand health inequalities. All of the papers in this session will be delivered by researchers affiliated with the Life Course Centre, a multidisciplinary centre of research excellence established in Australia in 2014 with goals to investigate the mechanisms leading to social disadvantage over the life course and across generations and to provide the evidence to support new policies and programs designed to reduce social disadvantage.

The Scars of the Past? Childhood Health and Health Differentials in Later Life

Presenter: Jack Lam, University of Queensland, Australia

Co-authors: Martin O'Flaherty, Janeen Baxter, Rekekah Coley

In this paper, we investigate the association between three retrospective reports of childhood health – self-rated childhood health, exposure to parental smoking while growing up, and missing school for 30 days or more consecutively due to health problems – with the level and progression of functional health in later life. Drawing on 15 waves of data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey, with responses of adults at age 50 and over, this study estimates multilevel mixed effects models of functional health. The results demonstrate that all three measures of childhood health were associated with level of functional health in later life, while exposure to parental smoking and self-rated childhood health were additionally associated with functional declines over time. The findings were robust to the inclusion of a number of childhood and adulthood factors. This study demonstrates that exposure to parental smoking and missing school due to health problems have long-term consequences for later life health. The associations are independent of self-rated childhood health, pointing to different mechanisms and intervention points to disrupt poor health and functional declines in later life.

The Implications of Poor Neonatal Health on Children's School Readiness: Variation by Family Socioeconomic Status

Presenter: Rebecca Ryan, Georgetown University, Australia

Co-authors: Caitlin Hines, Christina Padilla

A large literature links poor neonatal health, typically measured as low birth weight (LBW), with a range of negative adult educational, economic, and health outcomes. This literature has established the importance of neonatal health to long-run outcomes, however, it offers no insight into the potential processes through which these effects arise, thus, offers no guidance on approaches to ameliorating them. To do so, two interrelated questions need to be answered. First, do cognitive or socioemotional developmental mechanisms account for the long-run effects of poor neonatal health? (7, 8). Second, does low-socioeconomic status (SES) exacerbate the effects of poor neonatal health on developmental outcomes? The present study addresses both questions using data from the Early Childhood Longitudinal Study-Birth Cohort, a nationally representative study of children born in the U.S. in 2001, followed from

infancy into kindergarten. We address both questions by comparing children's cognitive and socioemotional outcomes at ages 4 and kindergarten among twins within families rather than children across families to assess the plausible causality of associations between neonatal health – measured as LBW, log birth weight and fetal growth rate (FGR) – and school readiness. Preliminary results indicate that even among twins, higher log birth weight and faster FGR (but not LBW) are associated with significantly higher math and reading scores in both prekindergarten and kindergarten. However, these effects are reserved for children whose mothers have less than a college degree and not those of college-educated mothers. Higher log birth weight and faster FGR were also associated with greater prosocial skills and fewer externalizing behaviors in prekindergarten and kindergarten, but these effects did not vary by mother's education level. These findings help illuminate the role that neonatal health problems play in achievement disparities and the processes through which neonatal health affects children's educational outcomes.

Teenage Mothers' Health Over the Life Course

Presenter: Guyonne Kalb, University of Melbourne, Australia

Co-authors: Ha Vu

This paper examines the health disparity between teenage mothers and other women over the life course. We follow (former) teenage mothers and other women for up to 15 years and examine physical and mental health in aggregate and separately over eight domains –general health, physical functioning, role of physical health in limitations on work or other regular activities, bodily pain, mental health, vitality, social functioning, and role of mental health/emotional problems in limitations on work or other regular activities. The Household, Income and Labour Dynamics in Australia (HILDA) survey is used, which is one of few surveys that include the 36-item Short-Form Health Survey (SF-36) in each wave, allowing us to follow the respondents' health status in detail over time. Descriptive analyses of the individual health domains, and two summary variables –the Physical Component Summary (PCS) scale and Mental Component Summary (MCS) scale– are presented. Poorer health outcomes on all domains and across the whole life course are observed for women who had children as teenagers compared to other women of the same age, even before any child is born. This suggests that teenage mothers are already at a disadvantage before having children. Outcomes on each domain, and PCS and MCS scales are analysed using random and fixed effects panel regression to assess the role of teenage motherhood in these outcomes across the life course. The health disparity between teenage mothers and other women prior to first birth, and within-person variation in health outcomes over time are used to allow for pre-existing disadvantage and differences between age cohorts of women. Then the role of potential mediators, including smoking or drinking, education, social support, employment and earnings/income, in the difference in health outcomes for teenage mothers is investigated. These results will aid in developing appropriate policies to assist (former) teenage mothers.

Adolescents are Not More Risk Taking but More Impatient When Observed by Peers

Presenter: Agnieszka Tymula, University of Sydney, Australia

Decisions made during adolescence and young adulthood have economic impact on people throughout their lives. It is now clear that teens and young adults more often than midlife adults make decisions that impair their own educational, health, and social outcomes, and their financial outcomes in the form of foregone future salary and retirement. Reckless behaviors come at a substantial financial burden to the society that bears the costs of hospitalization, preventive policies, and educational campaigns. The decisions that adolescents and young adults face such as whether to smoke, whether to have unprotected sex, and how much time to devote to studying are an outcome of complex interactions of an array of individual decision-making parameters; these include attitudes towards known and unknown risks, time preference, and the relative valuation of equally sized gains and losses.

Importantly, most decisions, particularly in adolescence, are made not privately but in a social context. The presence of peers is often considered as the culprit in reckless behaviors. We designed a series of behavioral studies to disentangle whether adolescents' and young adults' risk attitudes, ambiguity attitudes, time preference or loss aversion are affected by the presence of peers. To date, 600 participants aged 12-25 years old participated in these behavioral studies. Each participant made a series of incentive

compatible choices over risky and ambiguous gambles and between options that involve sooner smaller or later larger payments using three reward types: money, healthy and unhealthy food. Participants made choices in private and when observed by a peer. Our results suggest that common belief that adolescents and young adults become more risk taking in the presence of peers may be wrong if we define risk attitudes as in economic theory. Instead, young adults and adolescent's time preferences seem to be affected by observation.

Aboriginal Life Pathways Through Multiple Human Service Domains: A Quasi-Longitudinal Study Design

Presenter: Francis Mitrou, University of Western Australia

Co-authors: Steve Zubrick, Glenn Pearson, Anna Ferrante, Melissa O'Donnell

Aboriginal children and families face the highest levels of disadvantage of any population group in Australia across health, education, child protection, justice and other human service domains, but longitudinal data to inform policy is scant. The Western Australian Aboriginal Child Health Survey (WAACHS) is a population representative cross-sectional child development study of over 5,000 randomly selected children aged 0-17 years, plus their families and schools, conducted between 2000 and 2002 by the Telethon Kids Institute (TKI).

This project seeks to leverage the WAACHS by linking the survey data for all participants with State administrative data registers from the previous 30+ years, and into future decades linking data across generations (grandparents, parents/carers and children), to develop a major program of work in Aboriginal Human Development that would be unique in Australia. This presentation describes the project history, methodology, and project aims.

7F SYMPOSIUM

Methodological Innovations in Longitudinal Studies

Convenor: Karena Jessup, Australian Institute of Family Studies, Australia

Recent years have seen a marked increase in longitudinal studies embracing and exploring new innovations and methods of data collection. From the introduction of online surveys and apps, to the collection of biological samples and use of data linkage. Such innovations come with significant benefits (e.g., increased engagement of cohorts, time efficiencies in data collection, reduced replication) as well as risks (e.g., questions about data quality, take-up rates, longitudinal consistency). Innovations such as increased access to the internet and app development, advances in the collection and transportation of biological samples, and increased awareness of the benefits of linkage have enabled us to make use of such tools, but this is not change for change sake. It is from an aspiration to meet respondents where they are and to integrate our data collection into their lives. Often these innovations are made in response to desires of participants, the need to gain efficiencies in data collection, and the aim to reduce the burden of data collection on our cohorts. This symposium presents methodological innovations within three internationally significant longitudinal studies: Growing Up in Australia, Growing Up in New Zealand and the Millennium Cohort Study.

LSAC Goes Online: Asking Young People to Complete an Online Survey Prior to the Home Visit

Presenter: Karena Jessup, Australian Institute of Family Studies, Australia

Co-author: Jennifer Renda, Bernadette Kok, Joanne Corey, Katrina Martin, Australian Bureau of Statistics, Australia

Growing Up in Australia: The Longitudinal Study of Australian Children (LSAC) was designed to provide data that enables a comprehensive understanding of children's development within Australia's current social, economic and cultural environment. Since 2004, two cohorts of 5,000 children and their families have been interviewed every two years. The "Baby" and "Kinder" cohorts will be interviewed for the eighth time in 2018 and will be aged 14-15 and 18-19 respectively.

A number of challenges presented themselves in the development of Wave 8, which instigated the need for the Growing Up in Australia team to re-think the methodological approach with the older cohort of 18 year olds. In previous waves of LSAC, the young person and parent were interviewed in parallel, with the interviewer switching between both respondents throughout the 2-hour in-home interview. As this

group of respondents were moving into young adulthood, the focus of the study shifted away from the parents, with the parent interview reduced from a 2-hour in-home interview to a 30-minute Computer-Assisted Telephone Interview. In addition, Wave 8 content brought with it an increasing amount of content that was appropriate for self-report only. Both of these changes resulted in an increased amount of time in the in-home interview where the interviewer would be idle.

Over the past few waves, both respondents and interviewers were reporting a desire to complete some of the survey online. The Growing Up in Australia team considered the introduction of an online survey for selected self-report content as an effective tool for both addressing the logistical issues outlined above and as a mechanism for engaging the young people in the Study.

What Can Process Data Add to Our Understanding of Attrition in LSAC?

Presenter: Jennifer Renda, Australian Institute of Family Studies, Australia

Co-authors: Helena Romaniuk, Dinusha Bandara, Karena Jessup, Galina Daraganova, Bernadette Kok, Australian Institute of Family Studies, Australia

Growing Up in Australia: The Longitudinal Study of Australian Children (LSAC) was designed to provide data that enables a comprehensive understanding of children's development within Australia's current social, economic and cultural environment. Since 2004, two cohorts of 5,000 children and their families have been interviewed every two years. The "Baby" and "Kinder" cohorts will be interviewed for the eighth time in 2018 and will be aged 14-15 and 18-19 respectively. Response rate have declined gradually over the waves, however Wave 7 saw a significant drop in response for both cohorts. In addition, the study faces new challenges in retaining respondents as the children move into young adulthood.

This paper will present the pattern of attrition over the life of the study, as well as findings from analyses of the individual and family characteristics that impact on attrition (e.g., age, educational level). Interview process data, such as timing of first contact, number of call attempts, extent of contact with interviewer, can provide further insight and provide a more comprehensive picture of the factors that impact on study participation. This paper considers the extent this data can inform the evaluation, monitoring and management of interview processes in the LSAC context, with the view to improve participation rates.

Utilising Biological Samples and Linkage to Administrative Datasets to Augment Longitudinal Information and Improve Policy Relevance: Challenges and Opportunities in a NZ Context

Presenter: Susan Morton, University of Auckland, New Zealand

Growing Up in New Zealand has followed the lives of 6853 children from before their birth to understand what shapes their development across multiple domains in the context of their diverse families and the contemporary NZ environment (community, societal context and policy environments). From the outset, it established processes to collect biological samples from around the time of birth and in the preschool period to allow a better understanding of how epigenetic variation in particular was related to developmental and health outcomes, and how the environment operated to modify genomic potential over time. We have recently undertaken an analysis of the impact of the CREBRF variant on obesity across ethnic groups to discover that responses to postnatal growth in response to common environments may differ according to an individual's genetic status. We will report on the utility of this for intervening to reduce obesity and reduce inequalities in the burden this creates for Maori and Pacific NZ children in particular.

In addition to an explicit mandate to collect biological samples as well as to characterise phenotypes and environments of the cohort children the Growing Up in New Zealand team have also worked in partnership with multiple government agencies to collect longitudinal evidence to inform policy. Before BiG Data was "a thing" the team had sought consent to link the self-reported information with administrative datasets. Consent rates for linkage have been high (over 95%) and the results of merging cohort data with administrative data for 0 to 5 year olds is producing some key information about the utility of administrative data on its own as well as the utility of it in combination with detailed cohort data. We will describe an example of this using a Well-Child routine data check example.

Design and Implementation of a Mixed Mode Time Use Diary in the Age 14 Survey of the Millennium Cohort Study

Presenter: Emily Gilbert, UCL Institute of Education, UK

Co-author: Lisa Calderwood, UCL Institute of Education, UK

The Millennium Cohort Study (MCS) was the first large-scale longitudinal survey to use a mixed-mode approach for the collection of time use data among teenagers. A smartphone app, web diary, and paper diary were specifically designed for the sixth wave of the survey, when cohort members were aged 14. The smartphone app in particular was a departure from the more traditional methods of time use data collection, but proved to be a successful method for collecting this type of data from teenagers.

This presentation will focus on the development of the time-use diaries across mode, including design, development and implementation in the field. We will report findings from the two pilot surveys, as well as initial findings from the main stage of the survey. We will also discuss take-up of different modes, data quality across modes, and methodological challenges faced.

Refusal Follow Up in Wave 7 of the Longitudinal Study of Australian Children

Presenter: Joanne Corey, Australian Bureau of Statistics, Australia

In Wave 6 of the Longitudinal Study of Australian Children, first time refusals made up sixty-five percent of the total refusals. In an attempt to understand motivations for this nonparticipation, an investigation was conducted on all first time refusers via a short telephone interview. This exercise, while not providing new insights into refusal rationale, was surprisingly well received by respondents and many articulated a desire to continue to participate in the Study. As a result, it was decided to follow up particular populations of Wave 7 refusals – the younger cohort primary parent, and the older cohort young person (still approaching the primary parent in the first instance). The purpose was two-fold: firstly, to re-contact refusals and delve deep into the why; and secondly, if the participants were willing, to conduct a thirty-minute telephone interview to collect key data items from Wave 7.

The development process for this exercise was managed in a short time frame and needed to take into account the change of mode from face-to-face or computer-assisted self-interview to telephone mode, as well as decisions about which content should be included in the brief interview. Other considerations included: the timing of the follow up; which refusals would be appropriate for inclusion in the sample; and the selection and training of interviewers. This presentation covers the rationale, development, field outcomes and key results of the exercise.

7G SYMPOSIUM

Life Course Influences on Healthy Ageing: Interdisciplinary Findings Based on Global Aging Data

Convenor: Morten Wahrendorf, University of Düsseldorf, Germany

There is increasing recognition that health at older ages is influenced by various factors over the life course. The HRS-family of surveys provides remarkable opportunities for such studies as they offer comparable and detailed life history data for older men and women, with detail on previous fertility, partnership, accommodation, employment, and health history. This symposium gives an overview on data from the HRS-family surveys and their availability through the Gateway to Global Aging Data platform (g2aging.org). Furthermore, we illustrate their use to study life course influences on health at older ages. Key life course factors under consideration are socioeconomic circumstances during childhood, adverse life events and stress over the life course. We examine variations of these factors (across countries, cohorts, education and sex) and their influence on health in later life in terms of psychosocial stress, physical health functioning, and disability retirement. Data come from the US, England and continental Europe. The symposium will provide an overview on aging data for life course research and shed light on life course influences on later health in a cross-national and interdisciplinary perspective.

“The Gateway to Global Aging Data (g2aging.org)”

Presenter: Drystan Philips, University of Southern California, USA

Co-authors: Morten Wahrendorf, University of Düsseldorf, Germany; Jinkook Lee, University of Southern California, USA

Our presentation will introduce the Gateway to Global Aging Data (www.g2aging.org), an invaluable tool which has been developed for studying the international family of Health & Retirement Studies around to world. The Gateway provides a user-friendly resource for all researchers exploring population health, retirement, and other issues related to population aging. We will explain how to find comparable and relevant survey measures and how to understand survey logic and visualize skip patterns, exhibit generating graphs and tables to highlight time, country, and sub-population differences, and detail how to access and use.

Harmonized Datasets and Codebooks for Cross-Country Analyses Early Life Origins or Hearing Impairment

Presenter: Camille Lassale, University College London, UK

Co-author: Paola Zaninotto, University College London, UK

Background: Hearing impairment (HI) is very common at older age (2/3 people aged >70y in the UK) and has considerable social, health and economic implications. Age-related HI being currently incurable, there is a need to identify modifiable risk factors. Several age-related chronic conditions, such as cardiovascular disease (CVD), have their origins in early life, but evidence on HI is scarce. Our aim was to study the associations between early life adverse circumstances and HI in later life.

Methods: A total of 6737 participants (55% women) in the English Longitudinal Study of Ageing, aged 65.5y (10.1y) in 2006/2007 completed a life history survey including questions on childhood (up to age 15) circumstances. Three aspects of early life were explored: economic adversity (any of the following: father’s unemployment, financial hardship, accommodation: overcrowding, no facilities, few books), social adversity (parenting: separated, argued, drunk/drug, made feel unwanted, physical abuse; and experience of death), and poor health. HI was defined as poor or fair self-rated hearing at any wave between 2006 (wave 3) and 2014 (wave 7). An objective hearing test was performed at wave 7 on a subsample (n=4195). Estimates from logistic regressions were adjusted for age, sex, cognitive function, depression, self-rated health, long-standing illness, mobility impairment and current social class in 2006.

Results: Social adversity was reported by 42% of the sample and associated with self-reported HI: OR=1.15; 95%CI 1.03, 1.28, but not with objective HI (1.03; 0.90, 1.18). Economic adversity (63%) was weakly associated with self-reported HI (1.08; 0.97, 1.21) but strongly with objective HI (1.21; 1.05, 1.39). Poor health in childhood was reported by 12% of the participants and positively associated with both self-reported HI (1.42; 1.21, 1.66) and objective HI (PR=1.57; 1.28, 1.94).

Conclusions: Poor health and adverse socioeconomic circumstances in childhood are associated with poorer hearing in late adulthood.

Personal Troubles or Public Issues? Vulnerabilities in Ageing Across Gender, Cohort and Educational Level

Presenter: Bram Vanhoutte, Manchester University, UK

Ageing in the public eye can be distilled to a limited number of adverse events, such as loss of health, partnership and wealth. While these events are a part of “normal ageing”, they do not happen uniformly at the same time point in the life course for everyone, and therefore might have a widely differing impact. There is a high degree of variability as to when exactly these events happen, increasing with age. Furthermore, ageing is different for each generation, as period changes combine with life course circumstances engrained in each birth cohort. As such, the study firstly examines how strongly the occurrence of these “personal troubles” is linked with structural and life course aspects. Secondly, it has been illustrated that the prevalence of risk factors for vulnerability in old age differ substantially across Europe. This study wants to strengthen the evidence that these vulnerabilities are modifiable by policy, and as such are “public issues”, by comparatively examining their prevalence using a systematic and

analytic European framework. I combine several waves of the Survey of Health, Ageing and Retirement in Europe (SHARE) to examine the occurrence of these adverse events in a survival analysis framework. The analysis shows that being less educated, female and belonging to a younger cohort puts you at higher risk of experiencing an adverse event. Marked differences in risk occur between different European countries, and country pattern, that can be linked to differences in both welfare systems and cultural values.

Psychosocial Stress and Leave Taking at Child Birth

Presenter: Mauricio Avendano, King's College London, UK

Co-authors: Lisa F. Berkman, Harvard School of Public Health, USA; Agar Brugiavini, Giacomo Pasini, University of Venice, Italy

Stress generated by life events, can lead to a dysregulation of cortisol synthesis and release leading to important brain disorders. It is therefore important to understand which life event is a stress risk factor and whether public policies have or not a protective effect with respect to stress. A child birth may be one of those due to the risk of role overload induced by the necessity of combining work and family responsibilities. On the other hand, maternity leave policies may help mothers to cope with psychosocial stress. We use life history data from the third wave of the Survey of Health, Ageing and Retirement in Europe (SHARE) where respondents are asked to report the single most stressful event in their life. For our purposes, we use the data reorganized in a retrospective panel dataset: each respondent contributes as many observations as there are years of age from birth to the age at which they are observed at the moment of the interview. By means of individual fixed effects (FE) it is possible to control for unobservable characteristics affecting both the length of leave from work at each childbirth, and psychosocial stress. We then estimate IV-FE to control for measurement error in leave length and potential reverse causality. We use two legislation based instruments: full wage weeks of maternity leave and family allowances available in country c in year t . Our main finding is that being in the year a child is born or in the baby's first year of life is a psychosocial risk factor compared to other, more studied life course events. Moreover, job interruptions have positive effects if taken around childbirth: 8 to 12 weeks of leave are enough to counterbalance the stress increase due to the birth of a child.

The Relationship Between Stress Over the Life Course and Later-Life Disability and Retirement

Presenter: Brooke Helppie-McFall, University of Michigan, USA

Co-authors: Amanda Sonnega, Jacqui Smith, University of Michigan, USA

A significant literature exists that establishes the relationship between stress and both physical health and mental health, including health in later life. This paper extends the current literature by examining the relationship between stress over the life course and the inability to work in one's 50s and early 60s. We will use data about stress and stressful events from the Health and Retirement Study, including the new Life History Mail Survey (LHMS), HRS core surveys, and HRS Psychosocial Leave-Behind surveys to create a measure of cumulative lifetime stress burden up to age 50, as well as stress burden measures by stressor type and age when the stressor was experienced. The LHMS supplements information from the HRS core interview by providing detail on residential, educational, occupational, partnership, and health history, covering the entire life of HRS participants.

Factors used to create the stress variables will include health events and diagnoses, family births and deaths, relationship changes, changes of residence, job changes and unemployment, as well as self-rated stress at various times in the life course. We will then use standard regression techniques to examine the relationship between our measures of stress and (1) receipt of Social Security disability benefits, or (2) early retirement when a major reported reason for retirement is poor physical health, disability or cognitive decline.

Poster Presentations

Psychological Adaptation to Spinal Cord Injury in the Rehabilitation Setting: Work in Progress

Mayra Galvis-Aparicio, Valérie Carrard, Claudio Peter, Swiss Paraplegic Research, Nottwil, Switzerland
Spinal Cord Injury (SCI) is a potentially traumatic event that requires lasting psychological adaptation. This project intends to describe the psychological adaptation process during clinical rehabilitation following SCI through the examination of several adaptation indicators (life satisfaction, depression, and anxiety). The specific aims are: (1) to identify different profiles of psychological adaptation at rehabilitation discharge and biopsychosocial factors that discriminate among such profiles; (2) to explore the longitudinal trajectories of life satisfaction, depression and anxiety during the rehabilitation setting and biopsychosocial factors that influence these trajectories; and (3) to test the mediator role of appraisal and coping in the adaptation process of individuals with SCI.

The project is embedded within the longitudinal Swiss Spinal Cord Injury Cohort Study (SwiSCI) that investigates individuals newly diagnosed with SCI who have permanent residence in Switzerland and have been admitted for first rehabilitation in one of the four national rehabilitation centers. Currently, 407 newly injured patients have completed questionnaires assessing mental and physical health, well-being and other psychosocial factors at 4 time-points during rehabilitation. We will use exploratory Latent Profile Analysis to identify subgroups across the adaptation indicators, Latent Growth Mixture Modeling to detect the trajectories of the adaptation indicators, and Structural Equation Modeling to test the mediator role of appraisal and coping in the adaptation process. Data analysis will start in March 2018.

The results of this project will offer new evidence regarding factors that contribute to resilient responses after SCI, early signs of complications, and risk of poor adaptation outcomes. Understanding the adaptation process following disability onset and identifying determinants of this process will enable to draw interventions that target the right people at an appropriate time and in a tailored way. This project can thus contribute to optimizing the rehabilitation process.

Age, Period, and Cohort Effects on the Public Attitudes Concerning the Levels of Benefits of Social Security System

Tomoo Nakata, Hokusei Gakuen University, Japan; Shogo Takegawa, University of Tokyo, Japan
The aims of this study is to clarify the determinants conceiving the attitude trend of the social security services in Japan using the Age-Period-Cohort model. Four national cross-sectional surveys were utilized in this study. They were conducted in 2000, 2005, 2010, and 2015. The dependent variable was respondents' choice toward benefit and cost concerning social security services in Japan. And the independent variables consisted of gender and the scale of the city that the respondents were living in addition to the APC variables (age at the surveys, the year of the survey and birth year). The APC mixed model (APCMM) was applied to the repeated survey data in this study.

The results of the analysis were as follow; 1) Age effect was not found in any models. 2) The year of survey were effected on the attitude. Especially, interaction terms with gender were significant comparing 2000. 3) Gender was one of the important determinant. Females tended to choose high benefit and high cost. And 4) the city size of the respondents were living also affected the attitude. While people who live in big cities tend to high benefit and high burden, living in the rural areas were quite the reverse. And the additional analysis showed that the cohort effect has not disappeared. In recent years, conservative swing of the young people has been discussed in Japan. However, this result denied it. And it is interesting that interaction terms between gender and period are one of the determinants of the orientation of social services, because it seems to represent an unstable position and economic downturn of females.

Overcoming the Odds: Empowering Women with an Adverse Childhood Through Migration

Anca Bejenaru, Lucian Blaga University of Sibiu, Romania

The present paper adopts a life course perspective to show how migration experiences have contributed to transforming and redefining the lives of Romanian women, empowering them. The method used for data collection was life-story interview. Sixteen women, who migrated during their youth to a European country, were selected. All subjects lived abroad for a minimum of five years. All sixteen women had a childhood marked by adverse experiences, multiple economic deprivations, lack of affection from parents, and lack of qualitative education. The results of the research have highlighted a number of mechanisms that contribute to the empowerment of women in migration countries, but also the impact of acquired skills on the most important dimensions of life: family, social and professional dimension. Self-redefinition and attitudinal-behavioral changes were not smooth processes. Therefore, this research has allowed us to formulate proposals for social policies and practices aimed at supporting migrant women in this process of overcoming the odds.

Kids in Taiwan: National Longitudinal Study of Child Development and Care

Chien-ju Chang, National Taiwan Normal University, Taiwan

Kids in Taiwan: National Longitudinal Study of Child Development & Care is the first longitudinal study in Taiwan aiming (1) to examine the consistency and change in Taiwanese children's health and cognitive, language, social, emotional, and motor developmental trajectories, (2) to understand the home, child care, and school environments children are exposed to, and (3) to determine the long term impacts of family, child care, and school environments and experiences on children's development. Two representative samples, three-month-old children and three-year-old children, will be tracked over time until they are eight year olds. Using census register as the sampling frame, this project adopts stratified two-stage probability-proportional-to-size sampling method, with county and person as the primary and secondary sampling units respectively. Eleven waves of data will be collected when the cohort of the three-month-olds are at 3, 6, 12, 18, 24, 36, 48, 60, 72, 84, and 96 month old. With respect to the cohort of the 3-year-olds, they will be visited at home every year for six years in total. Data such as questionnaires completed by parents and teachers, observations of child care environments, individual tests on children's cognitive, language and motor development, and children's interviews will be collected in this study. Establishing a databank on child development in Taiwan will provide evidence-based information for policy making in children's health, welfare, and child care and will also provide important implications for early prevention and early intervention programs for young children.

Home Environment and Children's Cognitive and Language Development: A National, Longitudinal Study

Chien-ju Chang, Shinmin Wang, Li-Tuan Chou, National Taiwan Normal University, Taiwan

Kids in Taiwan: National Longitudinal Study of Child Development & Care (KIT) is an on-going project which aims to examine Taiwanese children's development in the areas of cognition, language, social emotion and motor as well as their experiences at home and school from age 0-8. Data about the children's development and experiences they are exposed to at home and school will be collected when they are 3, 4, 5, 6, 7 and 8 years old. Using part of the data collected from KIT, this study explores three research questions: (1) whether home environment is more strongly related to child cognitive and language development than socio-economic status (SES)? (2) if so, whether this relationship is moderated by gender and SES, and (3) which aspects of home environment play more important roles in the child development. About one thousand (N=1,133) nationally representative 3-year-olds who were born between April, 1, 2013 to September, 30, 2013 participated in this study. Parents were asked to fill out questionnaires about children's cognitive and language development and their home environments. Five subscales of home environment were used, including variety of stimulation, play materials, parental involvement, parental responsiveness, and acceptance of child. Results showed that (1) home environment is a stronger predictor of cognitive and language development in 3 years old compared to gender and SES, (2) the predictive relationship between home environment and children's cognitive and language development is not moderated either by gender or SES, and (3) specific aspects of the children's home environment, namely parental involvement and play materials, were uniquely related to their cognitive and language performance level. Discussion about the results will be provided.

Psychological Adaptation Trajectories Following the Onset of a Chronic Health Condition: Work in Progress

Caroline Debnar, Valérie Carrard, Claudio Peter, Swiss Paraplegic Research, Switzerland

Due to a global aging population, the prevalence of Chronic Health Condition (CHC) is increasing. The onset of a CHC can have severe impact on individuals' life and affect wellbeing, participation, or social integration. Nonetheless, people react differently in the face of adversity and present different psychological adaptation trajectories. Literature on adverse life events such as bereavement, natural disasters, or war shows that some individuals experience a significant drop in their well-being after the event, whereas others are able to adapt well and present resilient trajectories. Interestingly, some factors have been shown to predict trajectories following adverse event. However, these findings are inconsistent and the explained variance remains small. The present study aims to investigate psychological adaptation following the impact of the onset of CHC using specific indicators of well-being (life satisfaction, depressive mood, and emotions) in the first four years after onset. Its specific objectives are to (1) identify the number and shape of psychological adaptation trajectories and (2) test biopsychosocial factors predicting trajectories membership. Participants reporting the onset of a non-congenital physical CHC will be drawn from the Swiss Household Panel dataset, a nationally representative yearly panel study. Six measurement time points will be used (from 1 year before to 4 years after the CHC onset). Latent growth mixture modelling will be applied to define number, shape, and membership of psychological adaptation trajectories based on the longitudinal measurement of life satisfaction, depressive mood, and emotions. Biopsychosocial factors predicting trajectory membership will then be tested using multinomial logistic regression (e.g., health status, personality, or social support). Data analysis will start in April 2018. Investigating trajectories of psychological adaptation and their predictors will allow the identification of individuals with higher risk of lower well-being following the onset of a CHC. This study will thus provide scientific foundation for targeted interventions.

Cognitive Predictors of Mathematical School Achievement in Adolescence: Longitudinal Study

Tatiana Tikhomirova, Sergey Malykh, Lomonosov Moscow State University, Russia; Yulia Kuzmina, Victoria Ismatullina, Psychological Institute of Russian Academy of Education, Russia

A number of studies have demonstrated that cognitive abilities such as processing speed, working memory and intelligence predict academic achievement at school age (e.g., Deary et al., 2007; Rohde et al., 2007). At the same time, the cognitive processes are susceptible to age-related changes and have unique developmental trajectories across the school years. Moreover, the results of longitudinal studies indicate that the most important factor affecting the increase in the mean cognitive test score with age is schooling. Thus, the differences in educational systems might mediate the relationship of cognitive abilities and academic achievement in the course of development. The current three-year study focuses on the longitudinal analysis of the causal relationships between processing speed, working memory, intelligence and Math achievement in Russian secondary school students. The sample included 111 Russian students (61.9% males) from one public secondary school. The testing took place three times during secondary school age with one-year interval. The mean age of students at first testing in Grade 7 was 13.7+0.4, at second testing in Grade 8 – 14.7+0.4, and at third testing in Grade 9 – 15.7+0.4. Cross-lagged structural equation modeling was used for the analysis of the developmental structure of causal relationships between cognitive abilities and Math achievement measured three times at secondary school age. Six competing models of the relationship of cognitive abilities and mathematics achievement were sequentially compared. According to the reciprocal model with the best fit indices, significant cognitive predictors of success in learning mathematics measured on the basis of the Basic State Examination in Grade 9 is the working memory measured in the Grades 7 and 8, and the intelligence in the Grade 8. Processing speed measured in the Grades 7 and 8 has no direct and indirect effect on Math achievement in Grade 9.

Exploring Longitudinal Care Histories for Looked After Children: A Sequence Analysis of Administrative Social Care Data

Louise McGrath-Lone, University of Oxford, UK; Katie Harron, London School of Hygiene and Tropical Medicine, UK; Lorraine Dearden, Ruth Gilbert, University College London, UK

Background: Since 1992, data related to children in out-of-home care in England have been routinely collected through the Children Looked After return (CLA) in order to monitor care provision and outcomes for looked after children. However, official analyses of CLA data produce annual statistical 'snapshots' which focus on placements within a 12-month period only and so cannot capture the complexity and heterogeneity of longitudinal care histories.

Methods: We explored the heterogeneity of childhood care histories (i.e. from birth to age 18) using CLA data for a large, representative sample of children born between 1992 and 1994 (N=16,000). Using sequence analysis methods, we identified sub-groups of care history based on the number, duration and timing of care placements. We then compared the cumulative characteristics of care histories between the identified sub-groups, including the final resolution of care experiences.

Results: Although care histories were varied, based on the stability and timing of out-of-home care placements, six distinct sub-groups were evident including; adolescent entries (17.6%), long-term instability (13.1%) and early intervention (6.9%). Overall, most children (58.4%) had a care history that could be classified as 'short-term care' with an average of 276 days and 2.48 placements in care throughout childhood. Few children (4.0%) had a care history that could be described as 'long-term stable care'; but, most sub-groups appeared to achieve some form of permanence, either within or outside the care system.

Conclusions: Longitudinal analyses of administrative social care data can refine our understanding of how out-of-home care is used as a social care intervention. In particular, sequence analysis is a useful tool for exploring and classifying the heterogeneity of complex care histories. Considering children's care histories from a life course perspective could enable service providers to better understand and address the needs of looked after children.

Teacher Ratings of Social-Emotional Competencies in Classroom and Educational Aspirations: Do They Predict Occupational Status 37 Years Later?

Annette Krauss, University of Applied Sciences in Special Needs Education, Switzerland

In the past decade, there has been growing recognition of the importance of social-emotional competencies (or "soft skills") for life outcomes. There have been studies showing the importance of personality and attitudes on academic achievement (e.g. Crede & Kuncel, 2008; Robbins et al., 2004). But what about the long-term consequences of social-emotional competencies and academic aspirations in youth? Do they predict occupational status 37 years later? Based on a longitudinal sample spanning 37 years from childhood (age 15) to middle adulthood (age 52), the present study was designed to examine how student characteristics (social-emotional competencies and academic aspirations) in youth predict career success across the life span (at 19, 36 and 52 years). The sample consisted of N = 807 (53.1% female) persons from Switzerland who participated in 1968 (15 years) and 2015 (52 years) in the "Zurich Longitudinal Study From School to Middle Adulthood (ZLSE)". Hierarchical regression analyses revealed influences of teacher rated self-management on career success at 19 years and influences of teacher rated social competencies on career success at 52 years, after adjusting for differences in parental SES, IQ and school type at age 15. Academic aspirations had an influence on occupational status at all three points in time.

The findings suggest that social-emotional competencies and academic aspirations play significant roles in career success over and above socioeconomic factors and cognitive abilities. Promoting students' social-emotional competence is fundamental for a successful occupational adaptation across the life-span.

Developmental Trajectories of Information Processing Speed Across Elementary School Years

Sergey Malykh, Tatiana Tikhomirova, Lomonosov Moscow State University, Russia;

Yulia Kuzmina, Ilya Zakharov, Psychological Institute of Russian Academy of Education, Russia

The information processing speed is one of the basic cognitive characteristics related to both complex cognitive functions and life outcomes (e.g., Sheppard & Vernon, 2008). It has been shown that the information processing speed correlates with academic achievement at school age as faster thinking contributes to more efficient problem solving (e.g., Semmes et al., 2011). Previous studies provided evidence that the information processing speed is largely susceptible to age-related changes at school age (e.g., Der, Deary, 2006).

The current study focuses on the analyses of the development of information processing speed from grades 1 to 4 for Russian children with controlling for non-verbal intelligence. The sample included 138 schoolchildren of grades from 1 to 4 (46% girls). The participants were enrolled from one public secondary school. The mean age at grade 1 was 7.84 years (SD = .34; range 7.06 – 8.37) and 10.77 years at grade 4 (SD = .36; range 9.72 – 11.85). The testing took place four times during primary school age with one-year interval. The speed of information processing was measured using computerized task 'Choice Reaction Time' (Tosto et al., 2013). In this task numbers 1,2,3,4 appear on the screen one at the time at a random interval between 1 and 3 sec. The task requires pressing the corresponding keys (1, 2, 3, 4 of the key board) as fast as possible. The mixed effect growth approach was used. This approach assumes that all individuals within sample have the similar pattern of changes (for example, an increase in accuracy), but can differ in the rate of changes (Jung, Wickrama, 2008). The findings may be discussed in term of new hypotheses emerging from this study about potential involvement of influences of curricula, and other socio-cultural factors. This study was supported by the grant from the Russian Science Foundation №17-78-30028.

School-to-Work-Transitions in Different Institutional Contexts: Employer Preferences on Skills in Comparison

Magdalena Polloczek, University Paderborn, Germany

This project investigates how employers use and evaluate information on applicants' skills during the recruitment process. Aiming at improving our understanding of transitions from school into the labour market, it is inevitable to conduct research on demand-side microprocesses. The study pays particular attention to companies hiring behavior for entry level positions of the Bulgarian and German ICT sector, in which high skill shortages are reported. The differing country context allows to rise two main questions: 1) How do employers in both countries gather information on applicants' skills profiles? 2) Due to different educational institutions and labor market institutions, do employers correspond differently to the same informational value of applicants' characteristics, especially to the signalling value of cognitive and non-cognitive skills? From a theoretical point of view, the project is based on well-known labor market theories which consider the relationship of education and employers' development of selection criteria (Queueing, Signalling and Closure Theories). The study – even though relying on a cross-sectional factorial survey in Germany and Bulgaria – contributes greatly to the literature of life studies as the transition process marks a first challenging obstacle for graduates to overcome but, more widely, entails long-term consequences on individual labor market outcomes.

Work-Life Balance and Well-Being of Women in Middle Adulthood: Resources and Vulnerabilities Over the Life-Course

Claudia Schellenberg, University of Applied Sciences in Special Needs Education, Switzerland

Especially women have to balance work and family in midlife - two important life domains (Stauffer et al., 2016). Studies are conducted in order to investigate the interplay between career and family responsibilities (Huang & Sverke, 2007): They found that men and women show different occupational career patterns (e.g. "family-patterns" with several interruptions were prevalent in women's career patterns, "upward mobility" in men's patterns). But what are the long-term developments of the interplay between work and family over the life course (over the intensive phase in mid-life - with small children)?

On the basis of a longitudinal sample (the Zurich Longitudinal Study "From School to middle Adulthood, ZLSE"), which includes eleven surveys and covers the age span from 15 to 52 years, the presented study examines how the family context (having children), the work characteristics (working part- or full-time, management possibilities, work stressors), the personal characteristics (sex roles attitudes) and the social support resources (support of the partner) predict the work-Life balance and the well-being (satisfaction with job, health, life in general; Burnout) at the age of 52. Our sample consists of 807 persons (53.1% female).

We conducted hierarchical regression analyses in order to predict work-Life balance and well-being outcomes (control variables include household income). Concerning the family situation (marital status and children) and some professional characteristics (management position) we found no effects on work-Life balance and well-being. Work-stress factors (quantitative job-strains), sex-roles attitudes (at the age of 15) and social support (from partner and colleagues at work) had the strongest effects on work-life balance and wellbeing at the age of 52.

These findings suggest that women's perceived job strain does not base on the motherhood status, but rather on the dimensions of work-load and on the support at work and at home. Furthermore, if women have a progressive attitude towards the role of women and men (equally integrated in household and work), it is a resource for later happiness.

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Whole Genome Association Study Based on the Questionnaire Data to Examine the Relation Among Genome, Food Preference, Environment and Genetic Factors

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Whole genome association study based on the questionnaire data to examine the relation among genome, food preference, environment and genetic factors. It is known to relate with the genome about some of articles of taste such as alcohol in the dining habit. We expanded the range of the investigation, to the nutrient intakes such as salinities and glucidics, based on the questionnaire data. These customs might become factors related to the disease, in the long run. We used 10,000 or more questionnaire data of healthy people collected in the Cohort Study of Tohoku Medical Megabank Project. We investigated the relation between the food preference and the single nucleotide polymorphism, and also tried to explain these in relation from the side of metabolism and epidemiology.

Changes in Perception of Success and Agency in Poland: An Analysis Based on Two Kinds of Longitudinal Data

Weronika Boruc, Marta Mieszczanek, Danuta Życzyńska-Ciołek, Polish Academy of Sciences, Poland

The last 30 years brought extreme changes to Polish society. Political transition from authoritarianism to democracy in 1989 influenced the lives of Polish citizens in both private and public spheres. Other processes observed worldwide, such as globalization or technological development, also had an impact on everyday life of Poles, their beliefs, values and attitudes. In this paper we focus on changes of perception of success and agency, reflected in two types of longitudinal data.

First, we use data from POLPAN panel survey conducted every 5 years since 1988 on a large representative sample of adult Poles. Second, we analyse unstructured biographical interviews with a group of the oldest POLPAN panel respondents. In result we obtain a unique combination of quantitative and qualitative data containing information concerning the same individuals which allows us to

simultaneously take advantage of two kinds of longitudinal studies: a long-term panel study and retrospective biographical interviews.

The comparison of the two sources of information allows us to enrich substantive analyses, but also makes us face some divergences. As Baczko-Dombi and Wyszmułek (2016) proved and our analyses confirmed, the POLPAN survey data shows an increase in significance given to meritocratic aspects of success (such as “hard work”) over time. The retrospective biographical data gathered from the oldest POLPAN respondents suggest that age also influences perception of life success and its determinants. Moreover, some categories used in the survey tool for defining the most important determinants of life success are almost completely absent in the biographical narratives. In our paper, we reflect on possible sources of discrepancies and on benefits brought by using two types of data described above.

The German National Academics’ Panel Study (Nacaps): A New Longitudinal Study Observing Young Researcher’s Careers and Life Courses

Kolja Briedis, German Centre for Higher Education Research and Science Studies, Germany

Nacaps is a new project in Germany, that aims to generate (i) nationwide representative cross-sectional data on the situation of young researchers on the one hand and (ii) longitudinal data on individual careers of doctoral candidates and PhD-holders on the other hand. The purpose of this project is to answer a various number of (scientific and political) questions addressing the interplay of individual and institutional determinants of young researcher’s professional development. This includes different stages: the recruitment and selection process, training conditions during the PhD, and scientific outcomes as well as the attained status and positions after the PhD. More precise, these are questions

- on conditions of the qualification process and young researcher’s support,
- on the relationship of scientific outputs (and outcomes) and different institutional settings,
- on selection and self-selection processes in different stages of the career,
- on the professional development and young researcher’s career perspectives.

With this approach, Nacaps is able to identify individual and contextual determinants of academic careers in the academic sector as well as in other fields (like R&D) from a lifecourse and causal perspective.

The surveys are administered online, and the first wave – starting with doctoral candidates – will take place in the February of 2019; the first cohort of PhD-holders will be surveyed in 2021. It is planned to survey participants until 15 years after obtaining their PhD in order to have evidence on the long-term careers especially in the academic sector and on the factors that influence the transition to a professorial position. The collected data will be made available for the scientific community. In this contribution the research questions, the design, and the main contents of the study will be presented.

The Role of Stressful Life Events for Symptoms of Depression and Anxiety Across Time: Stress Causation, Stress Generation or Both?

Evelina Landstedt, Bruno Hägglöf, Umeå University, Sweden; Anne Hammarström, Uppsala University, Sweden; Ylva Brännström Almquist, Stockholm University, Sweden

Depression and anxiety are major public health issues. Research that advances the understanding of the antecedents and consequences of these mental health problems is therefore crucial. Stressful life experiences have been shown to be related to increased risk for both depressive and anxiety disorders. Generally, there is evidence in support of two psychological frameworks: ‘stress causation’ implying that stressful life events lead to poor mental health and, the ‘stress generation hypothesis’ suggesting that poor mental health increases the likelihood of future stressful life events. Few studies have concurrently explored both hypotheses and even fewer have included both depressive and anxiety related problems, especially across time from young adulthood into mid-life. The present study aimed to analyse the directions of associations between stressful life events and depressive as well as anxiety symptoms across time from age 21 to 42 years in Swedish men and women.

Data was drawn from three waves of the Northern Swedish Cohort Study (n=1,001). Stressful life events were measured through a composite index of four dichotomous indicators; Serious illness; Death; Conflicts and Tensions; or Unemployment. Depressive and anxiety symptoms were included in the models as latent

constructs of six and five items respectively. By applying cross-lagged structural equation modelling, we tested the support for either the stress causation or stress generation hypotheses, or whether the direction was reciprocal. A reciprocal relationship between stressful life events and anxiety symptoms was identified - stressful life events increases the risk for developing anxiety symptoms which in turn constitute risk for future stressful life events. In the case of depressive symptoms, data supported the stress generation hypothesis - the level of depressive symptoms was positively correlated with future level of stressful life events. No gender patterns were identified. The authors call for discussion of contextual factors in understanding the findings.

Cancer Through the Eyes of Survivors: A Longitudinal, Relational and Dialogical Research Strategy

Stefanie Plage, Alex Broom, Emma Kirby, Katherine Kenny, The University of New South Wales, Australia; John Oliffe, University of British Columbia, Canada

Research on the lived experiences of health and illness increasingly draws on participant produced photography (PPP). In this presentation, we address questions regarding the contributions of PPP to qualitative health research. We argue that the potential for such visualizations lies in their effective integration into a broader research strategy such as constructivist grounded theory emphasizing process and reflexivity. Reflecting on fieldwork and data collected for a study on the lived experiences of having cancer we explore how visual methods advance the longitudinal, relational and dialogical dimensions of qualitative health research in continuity with the rich methodological traditions of this field.

The analysis of how cancer survivorship is lived spans a variety of illness contexts including acute illness and recovery, remission and recurrence, and even terminal disease. We recruited 16 people living with cancer at various stages of disease progression for an initial interview, a photographic assignment and a follow-up interview in which the PPPs were discussed. We found (1) that this three-stage-set up enhanced longitudinal insights as transitions between illness contexts were captured and made visible in PPP; (2) the nature of the PPP assignment sensitized participants to the reception and perception of their contribution to this research by an anticipated audience, and intensified engagement between research team and participants across the research cycle; (3) the discussion of the PPP in a follow-up interview brought about profound and collaborative reflections between researchers and participants as they engaged in dialogue about and with the photographs.

We argue that an integrated methodological framework combining narrative and visual methods serves to complement etic with emic perspectives and provides insights into the dynamic aspects of cancer survivorship and illness experiences more broadly over time.

The European Cohort Development Project

Gary Pollock, Jessica Ozan, Haridhan Goswami, Manchester Metropolitan University, UK

The European Cohort Development Project (ECDP) is a Design Study which will create the specification and business case for a European Research Infrastructure that will provide, over the next 25 years, comparative longitudinal survey data on child and young adult well-being. The infrastructure developed by ECDP will subsequently coordinate the first Europe wide cohort survey, which we name EuroCohort. This is achieved through the following three objectives: i. Building support from key political policy makers with a brief which covers child well-being as well as national funding agencies tasked with infrastructural spending on science and survey data collection ii. Develop a scientifically excellent research design iii. Establish a robust operational framework that will ensure the logistic integrity of EuroCohort. The culmination of ECDP is in the creation of an infrastructural platform with a commitment from key stakeholders across Europe and from which the next stages in finalising EuroCohort can begin. There is at present no equivalent data source available to scientists to comparatively analyse the well-being of children as they grow up and therefore to develop policies to improve their well-being. As the respondents to EuroCohort grow up an increasing body of data will develop, becoming ever richer and informative, able to show the ways in which national policies have made impacts and showing where policy interventions can make significant improvements. ECDP has a tripartite focus on securing political support, operational robustness and scientific excellence. We recognise that each of these imperatives are necessary to the development of a successful research infrastructure, as scientific excellence alone is

not enough. ECDP comprises a range of Work Packages that detail the specific requirements of a EuroCohort, the costs that would be involved and the policy benefits that accrue.

Cultural Shock: Implication for Social Adjustment of African Migrant Students in Cameroon

Etta Roland Daru, University of Buea, Cameroon

Research Problem: What effect does cultural shock have on social adjustment of migrant students? Most academics acknowledge that cultural shock has an impact on migrant children social adjustment but the extent to that remains an open debate. Millions of African, mostly young adults, has moved to cities abroad to seek opportunities, with many of them. To add, few studies have focused on qualify cultural shock with social development. Cultural shock is a dynamic concept and cannot easily be measured because it covers a wide scope of activities (whether in belief or values, ceremonies). The present research has as objectives to address the following issues; perception of cultural shock, cultural shock and social development.

Theoretical Framework: Cultural shock exerts an influence on social development of migrant students and the perception and impacts are varied. Although cultural diversity is to breed strength, the question that puzzles the researcher is: have cultural differences become an instrument for destruction or strength. Cultural shock among migrant students in Buea influences relationship formation, emotional expression, how they handle stress and query among others.

It is speculated that socialization in different neighbourhood atmosphere and their environs conveys values and beliefs that may be unique in different countries. As such migrants in Buea sub division will interpret what culture will mean differently and form relationships differently.

Research Method: The visit comprises of focus group discussion sequence, interview and responding to questionnaire concerning the cultural shocks, impacts of cultural shock on social adjustment and proposing possible intervention strategies.

Results: Analysing the open ended questions and focus group discussions from the field, the expectations appear to be confirmed; there is an increased occurrence of cultural shocks across borders and the causes are varied, and also affirm perceived effect of cultural shock and social development or (adjustment).

Conclusion: In light of the data gathered the interpretation of cultural shocks among migrants in Buea, impact of cultural shock shows a correlation social adjustment. It summarized that the cultural shocks are varied and the impacts are thus, severe as such the inferences made on social development of migrant students are evident, and proposed interventions were made.

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Exploring Longitudinal Care Histories for Looked After Children: A Sequence Analysis of Administrative Social Care Data

Louise McGrath-Lone, University of Oxford, UK; Katie Harron, London School of Hygiene and Tropical Medicine, UK; Lorraine Dearden, Ruth Gilbert, University College London, UK

Background: Since 1992, data related to children in out-of-home care in England have been routinely collected through the Children Looked After return (CLA) in order to monitor care provision and outcomes for looked after children. However, official analyses of CLA data produce annual statistical ‘snapshots’

which focus on placements within a 12-month period only and so cannot capture the complexity and heterogeneity of longitudinal care histories.

Methods: We explored the heterogeneity of childhood care histories (i.e. from birth to age 18) using CLA data for a large, representative sample of children born between 1992 and 1994 (N=16,000). Using sequence analysis methods, we identified sub-groups of care history based on the number, duration and timing of care placements. We then compared the cumulative characteristics of care histories between the identified sub-groups, including the final resolution of care experiences.

Results: Although care histories were varied, based on the stability and timing of out-of-home care placements, six distinct sub-groups were evident including; adolescent entries (17.6%), long-term instability (13.1%) and early intervention (6.9%). Overall, most children (58.4%) had a care history that could be classified as 'short-term care' with an average of 276 days and 2.48 placements in care throughout childhood. Few children (4.0%) had a care history that could be described as 'long-term stable care'; but, most sub-groups appeared to achieve some form of permanence, either within or outside the care system.

Conclusions: Longitudinal analyses of administrative social care data can refine our understanding of how out-of-home care is used as a social care intervention. In particular, sequence analysis is a useful tool for exploring and classifying the heterogeneity of complex care histories. Considering children's care histories from a life course perspective could enable service providers to better understand and address the needs of looked after children.

Quality of Life in Second Half of Life: The Effect of Opportunity Structures and Educational Activities Over the Life Course

Madlain Hoffmann, Maja Wiest, Free University of Berlin, Germany; Katrin Kaufmann-Kuchta, Sarah Widany, German Institute for Adult Education (DIE), Germany

Considering the ageing population and rising challenges in contexts of employment and life domains, knowledge about opportunities for an active participation in society and associated life quality is essential. Non-formal Education (NFE) fosters active participation of adults in a changing world.

According to the state of research high formal degrees are a central predictor for adult's participation in NFE as well as for life quality. Nevertheless, little is known about the effect of NFE on life quality in the second half of life. Theoretical models of participation in adult education claim that educational participation is the result of the interaction of opportunity structures (e.g. employment, retirement), individual characteristics (e.g. age, formal degree) and functions of the educational activity (e.g. job-related/non-job-related). The sociological life course approach argues that the life course is shaped by transitions which are central reference points for life course patterns (e.g. employment – unemployment – retirement). Therefore, we assume that varying opportunity structures over the life course affect opportunities and learning needs for educational activities. The objective of our study is to identify patterns of opportunity structures and related educational activities and how these affect quality of life in the second half of life. Analyses are based on longitudinal data of the German National Educational Panel Study (NEPS) of the adult cohort (persons aged between 20 and 64 years at first measurement).

First, we analyse longitudinal data of nearly 4000 persons using optimal matching analysis to identify clusters of combined employment and educational biographies. Following, the relationship between identified clusters and quality of life are analysed using logistic regression and growth curve models. We assume that persons with a high intensity of participation in NFE have a higher extent of life quality. The results will be discussed against the background of the theoretical models and the life course approach.

Mortality and Longevity After Traumatic Spinal Cord Injury in Switzerland from 1990 to 2011: A 21-Year Longitudinal Study

Jonviea Chamberlain, Hans Peter Gmünder, Martin WG Brinkhof, Swiss Paraplegic Center, Switzerland; Kerstin Hug, REHAB Basel, Switzerland; Xavier Jordan, Clinique Romande de Réadaptation, Switzerland; André Moser, University of Bern, Switzerland; Martin Schubert, Balgrist University Hospital, Switzerland

Introduction: Traumatic spinal cord injuries (TSCIs) have life-long implications on the health and mobility of the individual's affected. Although limited, extant literature suggests a reduced life expectancy up to 50% in comparison to the general population, following TSCI. To adequately inform targeted intervention strategies aimed at reducing premature mortality, appropriately stratified, country-specific estimates of risk factors for mortality and reduced survival are imperative. Presently, Switzerland has no estimates on mortality and life expectancy after TSCI.

Methods: We used data from the Swiss Spinal Cord Injury (SwiSCI) cohort study to model mortality in relation to age, sex and lesion characteristics. We estimated hazard ratios (HRs) using flexible parametric survival models of time since discharge from first rehabilitation to death or September 30, 2011, whichever came first. Skew-normal regression was used to estimate marginally adjusted life expectancy (LE) at age 30 years.

Results: 2'215 persons were included that incurred a new TSCI between 1990-2011, contributing a total time at risk of 18'846 person-years (median 7.8 years) and 380 deaths. 73.4% were male, 59.1% were paraplegic, and the average age at injury was 43.4 years (SD=18.8; IQR=31). Controlling for age and sex, there was a 58% increased risk of mortality for high compared to low lesions (HR=1.58; 95% CI=1.23-2.02) and a 48% higher risk for complete versus incomplete lesions (HR=1.48; 95% CI=1.16-1.88). At an attained age of 30 years, comparing the highest, more severe lesions (C1-C4: AIS A, B, or C) to less severe lesions at any level (AIS D/E), estimated LE reduced by 17 years.

Conclusion: This study provides the first estimates of mortality and LE following TSCI in Switzerland. Main risk factors of premature mortality include: Age at injury, severity and lesion level. Future research should identify risk of cause-specific mortality for targeted interventions to improve LE and reduce avoidable mortality.

Day 3 Wednesday 11 July 2018

KEYNOTE PRESENTATION

Causality in Life Course Research: Do We Do Enough or Should We Even Care?

Professor Ross Macmillan, Bocconi University, Italy

(Abstract here soon)

Parallel Session 8

8A PAPER SESSION: FAMILY

The Role of Grandparent Involvement on the Wellbeing of Parents

Catherine McNamee, Queen's University Belfast, UK

Although grandparents are arguably becoming increasingly important for contemporary families, few studies have examined the effects of grandparent involvement on the wellbeing of parents. The present study addresses this gap in the literature by examining to what extent does the type and extent of grandparent involvement (frequency of contact, assistance with childcare, and financial assistance) influence various aspects of wellbeing of parents. Wellbeing is a broad term that has many facets with potentially distinct associations with parenthood, therefore multiple dimensions of wellbeing are considered: psychological distress, life satisfaction, and relationship quality. Wellbeing and grandparent involvement perspectives of both parents as well as the influence of the wellbeing of mothers and fathers on each other to provide a more nuanced picture of family processes. Utilising the Millennium Cohort Survey (MCS) and structural equation modeling, I examine how grandparent involvement (degree, type, and from which side of the family) influences multiple aspect of wellbeing (the three dimensions and for each parent).

Who Stays Together? Partnership Trajectories After the Transition to Parenthood

Jana Gläßer, University of Potsdam, Germany

The transition to parenthood is a significant stage in the development of partnerships and marriages. With the birth of a first child, couples are confronted with personal, familial, social, and often professional changes. Research has found that marital quality and satisfaction decline usually after the birth of a first child. However, not all couples experience these negatives changes during the transition to parenthood.

In addition, since the number of divorces has increased over the last decades, many children grow up without both parents, which effects children's later life. E.g. these children are more likely to have higher poverty rates, lower levels of educational and occupational attainment than children who grew up in a two-parent family. Furthermore, children who experienced parental break up have also a higher risk of divorce. Thus, it is crucial to understand the dynamics of partnerships across the transition to parenthood.

This paper examines the different patterns of marital changes after the first childbearing. I first address to what extent partnership trajectories differ after the birth of the first child. Second, I will address how the different patterns can be predicted and which factors can function as vulnerabilities or resources. I analyze data from the German Life Study (LiF 2012) which provides information about life courses of individuals up to the age of 45. The focus of analysis represents the cohort of individuals born between 1965 and 1967, which was first surveyed 1979 to 1983, and again in 2002 and 2012. I use sequence and multinomial regression analyses.

Housework, Gender Ideology and Couples' Fertility Intentions

Liat Raz-Yurovich, Barbara S. Okun, The Hebrew University of Jerusalem, Israel

Men's fertility intentions have not received enough theoretical and empirical attention in the demographic literature. We argue that the flipside of gender equity theory suggests that as men (are expected to) do more housework and childcare, they may enjoy less independent leisure time and experience greater work-family conflict. They may thus have lower fertility intentions, and lower actual fertility. We, therefore, ask: 1) Do men increase their housework following the birth of children? 2) Do more egalitarian men increase housework more? and 3) As men do more housework & take on more egalitarian gender role attitudes, do couples adjust their fertility intentions? Using the British Household Panel Survey (BHPS), we trace the fertility intentions of 4,500 women and their male partners over time, in response to changes in housework done, and subsequent to an (additional) birth. Our results demonstrate that men's greater gender egalitarianism increases both men's contributions to housework following childbirth and the likelihood of consensus for having at least one more child among the couple. However, our findings do not support the gender revolution theory, as we do not find evidence that men's increased housework leads to an increased consensus to have at least one more child.

8B PAPER SESSION: NEET

Patterns and Gender Differences in NEET Risks in Germany

Christian Brzinsky-Fay, Berlin Social Science Center, Germany

The NEET concept has its origins in the policy debate rather than it was developed by scientific theory. This is one reason for the fact that only little is known about the incidence of NEET in a longitudinal perspective. In this paper, I compare the NEET patterns of men and women for different birth cohorts in Germany. For this purpose, I use the German National Education Panel Study (NEPS) and apply sequence analysis to their activity careers in order to detect patterns. I found eight distinct types, which differentiate labour market entrance trajectories in an ideal-typical way: in five of these types, NEET episodes are short and occur in different critical positions in their trajectory, one type contains a turbulent distribution of many NEET episodes, and two further types contain long and enduring NEET episodes. I estimated regression models of these ideal types on socio-economic characteristics and I find gender effects for only three trajectories: the 'traditional' type is more probable for males, the long NEET pattern for females and the very turbulent pattern is more probable for males again. At the same time, cohort effects can only be identified for the 'traditional' types, where the probability decreases over time. Migration background seems also to influence the trajectory type. The patterns are used as dependent variables in a regression model for studying long-term effects on labour market outcome, namely the occupational status (ISEI) at the age of 30. It can be shown that the effect size of the labour market entrance trajectory is larger than those of the socio-economic control variables. This means that besides individual characteristics, the trajectory itself has an important effect on labour market outcomes. Interestingly, these effects do not significantly change over time. University students are able to compensate for erroneous labour market entry.

Health Consequences of Young People Not in Employment, Education or Training: Evidence from Scotland

Zhiqiang Feng, Kevin Ralston, Dawn Everington, Chris Dibben, University of Edinburgh, UK

Results: Included participants (n=12.685) had a mean age of 70 (SD ± 5) years. The identified trajectories and their determinants will contribute to develop tailor made preventive interventions for older people at risk for negative health outcomes. Reducing the number of young people not in employment, education or training (NEET) is high on the political agenda in many countries. The Europe 2020 flagship initiative Youth on the Move introduces a number of programmes that tackle this problem. Although NEET young people have been identified as one of the most vulnerable groups since the 1990s, little is known about the long-term effect of NEET experiences, especially the health consequences.

This paper examines whether being NEET is associated with a higher risk of death, poor mental health and hospital admission in the 20 years of follow-up since 1991. We used the Scottish Longitudinal Study (SLS), which collates information from the 1991, 2001, and 2011 censuses, for a 5.3% representative sample of the Scottish population. Linked health data from vital registrations and patient records such as

hospital admissions and prescribing information are also available. We followed around 14,000 young people who were aged 16-19 in 1991 up to 2010. Both descriptive and modelling approaches were used in our analysis. Cox models were fitted to predict the risk of death for NEET young people compared to that of non-NEETs while logistic regress was used to predict the odds of poor mental health and hospital admission. Confounders included individual socioeconomic characteristics, health conditions and local area characteristics such as deprivation. There are clear gradients with increasing prevalence of NEET in more deprived area. Modelling results showed that being NEET in 1991 was associated with an elevated risk of mortality, depression and anxiety, and hospital admission. The elevated risk remained even when the models were fitted separately by gender. Policy intervention is necessary in supporting NEET young people to re-engage in education or employment.

A Dynamic Analysis of Skill Formation and NEET Status

Gurleen Popli, Daniel Gladwell, Aki Tsuchiya, University of Sheffield, UK

This paper uses a dynamic latent factor model to investigate the determinants of NEET (Not in Education, Employment or Training) status in adolescents. We use the data from the Longitudinal Survey of Young People in England (LSYPE) which followed a group of adolescents who completed compulsory education in 2008. The data has information on: the educational progress and attainment of these young people throughout their secondary education (starting age 11); their socioeconomic background; their own and their parents' aspirations; their non-cognitive skills; and their health. The final outcome we are interested in is being NEET at the end of compulsory education (age 16) and persistence of this state a year-on at age 17/18. We model: the cumulative formation of cognitive ability over multiple periods through the life of the young person, up to completion of compulsory education; and the impact that cognitive ability has on NEET status at one and two years after compulsory education. In our analysis we pay particular attention to both the direct and the indirect (via past ability) impact of aspirations, non-cognitive skills and health on the individuals' likelihood of being NEET. Within this framework we address the issue of latent heterogeneity across individuals.

The analysis finds that cognitive ability remains the key predictor of NEET status, and explains the persistence in NEET status. We also find evidence of significant indirect effects (of magnitudes similar to direct effects of ability) of aspirations of the young person and their parents in the prevention of NEET status. Health (general and mental) plays an important role in ability formation and in explaining NEET status; however, its impact differs between the sexes.

8C PAPER SESSION: METHODS

Leveraging Large-Scale Panel Data to Study Sexual Orientation: Two Case Studies

Francisco Perales, Alice Campbell, Janeen Baxter, The University of Queensland, Australia

Until recently, there has been a paucity of quantitative social science research on LGBTIQ+ issues, largely due to the scarcity of adequate survey data. The recent impetus in the field, involving chiefly research on the consequences of sexual identity for life outcomes, has primarily relied on cross-sectional samples. Very few quantitative studies have examined LGBTIQ+ issues in a longitudinal environment, as few large-scale panel surveys include repeated measurements of sexual identity, behaviour or attraction.

We contribute to this emerging field by leveraging two Australian panel datasets that collect information on sexual identity from the same individuals in multiple waves. These are: (i) two cohorts of the Australian Longitudinal Study of Women's Health (n~9,000 & n~12,000) collecting information on three occasions (Cohort 1: 2000, 2003 & 2012; Cohort 2: 2013, 2014 & 2015), and (ii) the Household, Income and Labour Dynamics in Australia Survey (n~12,000), collecting information on two occasions (2012 & 2016). Leveraging these panel datasets, we provide novel evidence pertaining to two research areas concerning LGBTIQ+ issues for which analysis necessitates panel data. First, contributing to the subfield of sexual fluidity, we characterise the magnitude, patterns and predictors of changes over time in individuals' sexual identities in contemporary Australia. To date, this area has been dominated by qualitative studies and quantitative studies of small, purposive, non-representative samples.

Second, within the broad field of survey methodology, we examine whether and how sexual identity and changes in such identity relate to panel attrition. With sexual diversity featuring prominently in public debate and questions on sexual orientation being progressively included in longitudinal surveys, understanding whether and how non-heterosexual individuals engage with the survey interview process is a significant endeavour.

Findings from both case studies can inform subsequent quantitative, longitudinal scholarship on LGBTBIQ+ issues, including research informed by a life-course perspective.

Nonlinear Autoregressive Latent Trajectory Models

Shawn Bauldry, Purdue University, USA; Kenneth Bollen, University of North Carolina at Chapel Hill, USA
Autoregressive latent trajectory (ALT) models combine features of latent growth curve models and autoregressive models into a single modeling framework. The development of ALT models has focused primarily on models with linear growth components, but some social processes follow nonlinear trajectories. Although it is straightforward to extend ALT models to allow for some forms of nonlinear trajectories, the identification status of such models, approaches to comparing them with alternative models, and the interpretation of parameters have not been systematically assessed. In this paper we focus on two forms of nonlinear autoregressive latent trajectory (NLALT) models. The first form allows for a quadratic growth trajectory, a popular form of nonlinear latent growth curve models. The second form derives from latent basis models, or freed loading models, that allow for arbitrary growth processes. We discuss details concerning parameterization, model identification, estimation, and testing for the two forms of NLALT models. We include a simulation study that illustrates potential biases that may arise from fitting alternative models to data derived from an autoregressive process and individual-specific nonlinear trajectories. In addition, we include an extended empirical example modeling growth trajectories of weight from birth through age two.

A Method to Retrospectively Derive a Scale and Measure DSM-5 Attention Deficit Hyperactivity Disorder (ADHD) Using Age 10 Data from the 1970 British Cohort Study (BCS70)

Joanne Cotton, Sara T. Baker, University of Cambridge, UK

There is a gap in knowledge about factors driving optimal adult (age 30+) outcomes in ADHD (Costello & Maughan, 2015). Available data sources lack robust samples, richness, and longevity. Our study aimed to develop a method to retrospectively identify ADHD in a data source that would enable future studies to fill the outcomes knowledge gap.

Our sample was 11,426 age-10 cohort members with behaviour data from the BCS70. We recoded and mapped ADHD-related items to ADHD DSM-5 criteria. Criteria were applied to derive a diagnostic indicator, and a simple sum score was calculated. An MPlus mixture model was used to estimate a dimensional ADHD severity score, adjusted for the nonnormal, zero-inflated distribution of latent psychiatric traits typical in population-based samples (Wall, Park, & Moustaki, 2015). Mapping of items from BCS70 to DSM-5 criteria was validated using an expert panel. The applied diagnostic indicator identified an ADHD subgroup of 594 children (5.2%) with a 2.3:1 boy to girl ratio, and 52% inattentive-type presentation; all figures consistent with metaanalysis estimates of ADHD prevalence and group composition (Willcutt, 2012). Cronbach's alpha for the scale was 0.85. The factor score estimated by the mixture model revealed more nuanced between-person variation than the simple sum score, and correlated as expected with the simple sum score and two other ADHD-related measures. The method is well-defined and implemented in mainstream software, and could easily be adapted to measure ADHD or similar latent traits in BCS70 or similar datasets. Assuming a 20-minute presentation slot, I will use about 10 slides to present a brief summary of the problems we set out to solve, how our solution addressed them, limitations, and implications for future research.

8D PAPER SESSION: WEALTH

The Association Between Employment Histories and Individual Pension Wealth in East and West Germany: A Life Course Perspective

Theresa Nutz, Philipp Lersch, University of Cologne, Germany

During the last decades, demographic aging has made it more difficult for most Western welfare systems to support the growing population of retirees financially. Hence, the importance to accumulate private pension wealth has increased. However, previous research has shown that women are less likely to accumulate sufficient personal wealth throughout the working life compared to men. This has made old age poverty particularly common for women. Gender disparities in personal pension wealth have not only been found between households but also within couples. However, it remains open how life-course characteristics at both the individual and the couple level drive the accumulation of personal wealth and contribute to the emergence of disparities in personal wealth at retirement age. This study adopts a life course perspective to examine the association between employment histories of husbands and wives and the personal wealth of both partners at retirement age. Since spouses' wealth accumulation processes can be considered as interdependent, we expect individuals' employment histories to affect both their personal and the other partner's wealth accumulation processes. Using data from the German Socio-Economic Panel Study (2002, 2007, and 2012), we conduct multichannel sequence analysis and cluster analysis to identify groups of typical employment histories of men and women within retired couples. Regression models estimate how these groups are associated with personal wealth and within-couple wealth inequalities at retirement age. Overall, this study provides crucial empirical evidence on how gender disparities in spouses' employment histories may be linked to gender differences in pension wealth. Hence, we will contribute to the growing literature on the intra-household distribution of wealth and its outcomes by considering additional processes taking place on the couple level.

The Accumulation of Wealth in Marriage: Over-Time Change and Intra-Couple Inequalities

Nicole Kapelle, Philipp Lersch, University of Cologne, Germany

The assumption that marriage is equally beneficial for all family members has long been criticised. However, how marriage is associated with personal wealth rather than household level wealth is largely under-researched. Recent studies have illustrated that wealth premiums at the household-level seem to extend to personal-level premiums for married men and women compared to never-married individuals. These studies have also revealed substantial gender disparities in wealth between spouses disadvantaging wives. Nevertheless, these studies have largely disregarded over-time variations and hence overlooked that entry into marriage is a major life course event that uniquely shapes husband's and wife's wealth trajectories in all subsequent years. Going beyond previous research, we use a longitudinal approach to examine the accumulation of personal wealth within married couples over time and investigate the development of intra-couple wealth inequalities. Using high-quality data from the German Socio-Economic Panel Study (2002, 2007, and 2012), we apply random-effects and fixed-effects regression models to describe wealth patterns of first-time married couples. We find a delayed marriage wealth premium about 5 years after entering marriage compared to never-married respondents. Further our results suggest that spouses particularly increase their personal housing wealth, while marriage seems less beneficial for the accumulation of financial wealth over time.

Considering intra-couple wealth inequalities, our results show a pronounced wealth gap at the start of the marriage whereby husbands hold 40 percent (approx. €45,000) more personal wealth than their wives. The gap stays fairly constant throughout marriage. While the intra-couple wealth gap during early years of marriage is mainly defined by differences in personal housing wealth, differences in personal financial wealth constitute the gap during later years. Overall, our results point out that although husbands and wives benefit from a growing marriage premium, a stable within-couple gap may place wives at persistent disadvantage.

Economic Vulnerability in Retirement: A Panel Data Analysis Using SHARE

Dan Orsholits, Matthias Studer, NCCR LIVES, University of Geneva, Switzerland

In the face of an ageing population, pension systems are increasingly coming under pressure. Increasingly, there is a risk of a degradation of the financial situation of individuals in retirement leading to situations of economic vulnerability or poverty. This risk was further compounded in the aftermath of the 2008 financial crisis especially in countries affected by austerity measures. Defining poverty or situations of economic vulnerability, especially in the case of retired individuals, is not particularly straightforward. Income-derived measures are not necessarily the most appropriate for individuals no longer in the labour market. Alternative measure such as those based on (multiple) deprivation, wealth, or subjective evaluations of a household's situation may be more informative.

This paper using longitudinal and cross-national data from the Survey of Health and Ageing in Europe (SHARE) seeks to model this risk of entering a situation of economic vulnerability for retirees using an income-based measure, a deprivation measure, and subjective measures of households' financial situation. It will also employ the retrospective data collected as part of SHARELIFE to identify potential life course events and pathways that may influence the entry into situations of economic vulnerability following retirement. Moreover, as European countries vary substantially in their retirement systems, a cross-national analysis of the differences between the countries participating in SHARE can shed light on the influence of different types of pension systems on the economic conditions of retirees, especially in countries where pension systems are not universal but segmented.

Family Socio-Economic Status, Dimensions of Parenting and Child Development

Tomas Cano, Pompeu Fabra University, Spain

Children growing up in more advantaged families have better achievement and higher attainment on average than low-SES children. To explain these gaps, most of the research have focused in the relation between parental investments (i. e. money and time) and children outcomes. However, little is known about how social class shapes parents' dimensions of parenting (i. e. warmth, attention, inductive reasoning) and how these dimensions affect children outcomes. To investigate such associations, I use three waves from the Longitudinal Study of Australian Children and a sample of 3,123 children when they are 4, 6 and 8 years old. Results show that there are consistent association between family socio-economic status and the dimensions of parenting. In addition, there are consistent and strong associations between the dimensions of parenting and a wide range of children outcomes, including cognitive development and socio-emotional and behavioral problems.

8E SYMPOSIUM

The Future of Longitudinal Data: Have Your Say, with ESRC and Special Guests

Convenor and Chair: Rebecca Fairbairn, Economic and Social Research Council, UK

The symposium will focus on the LS Review recommendations, outline ESRC's and forward-plan, and provide an opportunity for discussion and input to these proposals.

We are planning to structure the session with an ESRC proposal/presentation upfront, followed by 4 'provocations' to stimulate discussion around the 4 key recommendations from the LS review:

- A new cohort
- Innovation to augment existing cohorts
- Evolving the supporting/enabling facilities which sit around longitudinal datasets
- Admin data linkage/spine

8F SYMPOSIUM

Opportunities to Promote Children's Early Learning Across the Family and Preschool Settings

Convenor: Diana Warren, Australian Institute of Family Studies, Australia

Children's skills as they start school is a strong predictor of their later academic achievement, with pathways of academic performance once children begin school being relatively stable. That is, children who begin school with strong learning foundations tend to continue to perform well, while children who start school with weaker skills tend to continue to struggle. This means that children's early learning skills as they begin school is vitally important to their educational pathways. It is therefore critical to understand what in children's early life can help to set them up for success as they start school. This symposium uses data from longitudinal studies of children in Australia, New Zealand and Scotland, to explore the relationship between preschool attendance, school readiness and outcomes in the early years of school.

Exploring the Relationship Between Preschool Use and Outcomes at Age 5: An Analysis from the Growing Up in Scotland Study

Presenter: Eilidh Currie, ScotCen Social Research, UK

Co-authors: Line Knudsen, Paul Bradshaw, ScotCen Social Research, UK

Preschool education is high on the agenda for policy makers in Scotland as, indeed, elsewhere. Recently, the Scottish Government have committed to increase the entitlement to free preschool education for 3 and 4 year olds – up to 30 hours per week during term-time. The main objectives are to support children's development and help close the poverty-related attainment gap, and to support more parents into work, study or training. The policy commitment has further fuelled debates about how preschool provision ought to be organised, as well as which children (if any) might particularly benefit.

This presentation will use data from the Growing Up in Scotland study (GUS) combined with administrative data on preschool quality. It will examine associations between characteristics of preschool attendance - including, in particular, the weekly duration of preschool attendance and the type and quality of provision – and children's cognitive and social development around the time they start primary school. Drawing on the findings from these analyses the paper will discuss some of the opportunities and risks associated with an expansion of free preschool provision in Scotland. Growing Up in Scotland is a longitudinal birth cohort study funded by the Scottish Government and undertaken by ScotCen Social Research. Study website: growingupinScotland.org.uk

The Impact of Early Childhood Education Programs on Children's Developmental Outcomes: Evidence from the Longitudinal Study of Australian Children

Presenter: Diana Warren, Australian Institute of Family Studies, Australia

Co-author: Meredith O'Connor, Galina Daraganova, Australian Institute of Family Studies, Australia

This presentation will explore the relationship between preschool attendance at age 3 and 4 and children's cognitive outcomes at age 8-9. We draw on data from 2,531 children in the Birth Cohort of the Longitudinal Study of Australian Children (LSAC), for whom data has also been linked from The National Assessment Program – Literacy and Numeracy (NAPLAN). Preliminary results indicate that, compared to children who attended a preschool program at age 3 and 4, those who attended no Early Childhood Education program (preschool or long day care) had significantly lower Reading and Numeracy Scores at age 8-9. For boys, but not for girls, test scores were significantly lower among those who had attended 2 years of long day care, as opposed to 2 years in a pre-school program, even after controlling for characteristics of the child and their household, including household income, mother's education level and the health care needs of the child. These findings reinforce that preschool is a potentially important policy lever for promoting children's readiness to take advantage of the school setting.

Who Misses Out on Routine Before School Preschool Checks for School Readiness in the New Zealand Context: Evidence from the Growing Up in New Zealand Study

Presenter: Susan Morton, University of Auckland, New Zealand

The Before School Check (B4SC) is a free health and development check for four year olds. It is the twelfth core contact as part of the free Well Child Tamariki Ora (WCTO) programme that takes place throughout the preschool period. It is undertaken by trained health professionals in a number of health-care related settings. The overarching aim of the B4SC is to screen for any health, behavioural, social or developmental concerns that could affect a child's ability to get the most out of school, and to follow up if a potential problem is detected.

At the time of the 54-month interview, 70% of children in the Growing Up in New Zealand Study had completed their B4SC. The majority (95% of these children) had done so as a result of receiving an invitation. A further 335 children (5%) had a B4SC scheduled, but had not completed it as yet. The remaining 1487 children (24%) did not have a B4SC check scheduled. Of those 1487 children who had either not completed or did not have a scheduled B4SC, 651 (44%) had received an invitation but not yet scheduled the check and 612 (41%) had not received an invitation. In addition, the parents of 224 children (15% of the 1487 children who had not completed or scheduled a B4SC) did not know about this important routine health check. This presentation will explore the characteristics of the children who miss out on this important health and development assessment.

Equality of Access to Early Non-Parental Childcare in Ireland

Presenter: James Williams, Economic and Social Research Institute, Ireland

Co-author: Aisling Murray, Economic and Social Research Institute, Ireland

This paper considers how a changing policy environment has affected equality of access to early care and education over the last 40 years in Ireland. It considers residual social inequalities in the types and intensity of non-parental childcare available to children and the relationships between cognitive and socio-emotional outcomes at 5 years of age, on the one hand, and participation in early home learning activities and non-parental childcare on the other.

8G SYMPOSIUM

Sequence Analysis of Life Histories: Models, Methods and Connections

Convenor: Marc Scott, New York University, USA

The proposed symposium is a series of related studies involving Sequence Analysis. Studies range from highlighting and examining best practices in the context of a complex substantive question to illustrating limitations and providing new approaches. The first study will set the stage by exploring the links between fertility, residential context and residential mobility. The second will consider multi-channel sequences on data related to the first study and connects concepts from network models to lifecourse trajectories. The third paper revisits the typology construction problem for sequences using ideas from fuzzy clustering, which is similar to mixed membership modelling. The fourth and final study is a sensitivity analysis examining the use of typologies in regression-like settings. In all of these studies, two different methodologies or contexts are linked in some manner with the aim of identifying more nuanced underlying structure in the lifecourse.

The Importance of Residential Context and Mobility Timing on Fertility: A Longitudinal Approach

Presenter: Jacques-Antoine Gauthier, University of Lausanne, Switzerland

Co-author: Gil Viry, University of Edinburgh, UK

Using a life course approach, we explore the links between fertility, residential context and residential mobility. Existing literature suggests that the ways family and residential lives interact have significantly changed over the past decades through a process of individualisation and globalisation. In particular, there are fears that increased mobility over the life course negatively affects family development in a time of low fertility in Western countries. Using a representative sample of two birth cohorts (1950-55 and 1970-75) from Switzerland and innovative sequence analysis techniques, we examine how fertility and cohabitation relate to the number, timing and distance of moves, the residential context and the geographical distance from the place of origin as life trajectories. The results show that the intensity of

residential mobility has little effect on fertility. People who moved frequently and long distances, especially women, do not have significantly different fertility patterns than those who stayed close to their place of origin. Confirming earlier findings, the residential context and timing of mobility are the most influential factors and are significantly related to individuals' socio-economic characteristics: education, birth cohorts and gender. Low and late fertility is more likely among the younger cohort, especially highly-educated people and men, and is associated with urban areas, late mobility and moderate distance from the place of origin. Our findings support previous evidence showing that the context, timing and purpose of geographical mobility are key to better understand the complex interplay between family development and residential mobility.

Exploiting Network Structure in Sequences: A Hybrid Approach

Presenter: Marc Scott, New York University, USA

Co-authors: Jacques-Antoine Gauthier, University of Lausanne, Switzerland; Kaushik Mohan, New York University, USA

In lifecourse studies, one is interested in the succession of statuses individuals hold over time in various life domains. Represented by nominal states, such as being in school, working part-time or full-time, living alone, cohabiting or living with children, the number of states grows quickly when several dimensions of the lifecourse are taken into account simultaneously. With sequences representing the time-based trajectory of individuals, identifying similar pathways characterized by specific events, transitions and stages to build types of trajectories is essential to understanding a variety of social processes. Modelling sequence data is an inherently challenging problem due to the lack of a natural metric for nominal states. Current approaches include Hidden Markov and Marked Point Process models, and clustering based on optimal string matching. We explore a hybrid approach to clustering and visualisation. Using ideas from Social Network Analysis, we envision a sequence as a traversal through a set of nodes on a network. Models have been developed to parsimoniously describe the propensity of connections between nodes. Networks may be embedded on a latent space in a manner similar to Multidimensional Scaling. An embedding establishes locations for the token space wherein proximity reflects the strength of the relationship, or common pathway. These could be used directly to build a substitution cost matrix, or to measure how far an individual trajectory is from modal pathways. Comparisons between different subgroups within the population are facilitated as well. Visualisation is aided by the embedding because entire sequences are likely to be concentrated in the same region of latent space over time. Application will be made to Swiss and U.S. lifecourse data.

Divisive Property-Based and Fuzzy Clustering for Sequence Analysis

Presenter: Matthias Studer, University of Geneva, Switzerland

We discuss the usefulness of divisive property-based and fuzzy clustering for sequence analysis. Divisive property-based clustering provides well-defined clustering membership rules. Aside from significantly simplifying interpretations of clustering, it is also useful when one plans to use the same typology in other samples or studies. We further enrich the methods by proposing new sets of sequence features that can be automatically extracted and used in the procedure. We then discuss the use of fuzzy clustering, where sequences belong to each cluster with an estimated membership strength. This approach is particularly useful when some sequences are thought to lie between two (or more) sequence types (i.e., hybrid-type sequences) or when only a weak structure is found in the data. Finally, we discuss several methods by which to visualize a fuzzy clustering solution, and analyse them with regression-like approaches. We also introduce R code to run all the discussed analyses; all the proposed developments are made available in the `WeightedCluster` R package.

Heuristics for Validation in Sequence Analysis

Presenter: Raffaella Piccarreta, Bocconi University, Italy

Co-authors: Emanuela Struffolino, Humboldt University of Berlin, Germany

The adoption of a holistic approach implies regarding life courses as meaningful units (i.e., careers or trajectories). Sequence Analysis is a collection of tools aiming at describing life courses simultaneously considering the timing ("when"), sequencing ("in what order"), and quantum ("how many") of all the events experienced by the individuals. Since each individual typically presents a specific trajectory, it is

usually of interest to disregard individual peculiarities, and to organize trajectories into typologies (clusters). In many applications, when it is of interest to study the relationship between trajectories and a set of (baseline) explanatory variables, the typologies are substituted to the original, much more turbulent, careers, and multinomial logistic regression is typically applied to relate typologies to covariates. This approach can be questionable when clusters are heterogeneous and/or when they include some outlying sequences. Remarkably, despite a number of criticisms about this approach, it is still frequently adopted, mostly because of its simplicity and ease of interpretation.

For this reason, while acknowledging that a number of model-based approaches have been considered in the literature as an alternative to this procedure, in our work we aim to provide practitioners with criteria to evaluate the extent to which the results obtained combining cluster analysis and multinomial regression are reliable. Specifically, we introduce an integrated approach to evaluate the impact of “noise” on such results. We discuss procedures to properly visualize the whole set of trajectories without preliminarily simplifications possibly masking the presence of outliers. We discuss a number of criteria to identify outliers and, finally, we illustrate procedures to evaluate to what extent the presence of outliers has an impact on the results of multinomial regression.

Parallel Session 9

9A PAPER SESSION: CHILD

Against All Odds: A Study of Enabling Factors in Early Childhood for Non-Cognitive and Cognitive Outcomes

Adriana Duta, Cristina Iannelli, University of Edinburgh, UK

Parental background factors play a key role in children’s cognitive and non-cognitive (social and emotional) development, with those children from more disadvantaged families being more likely to experience poorer outcomes. While there is an extensive literature on the importance of cultural, economic and social family resources for children’s and young people’s outcomes, less empirical evidence is available on the complex interplay among these factors. Moreover, with a few exceptions (e.g. Siraj-Blatchford et.al, 2011), most research has focused on the factors which negatively affect children’s outcomes. Our study aims to analyse the mechanisms behind the reproduction of social inequalities by focusing on the *enabling factors* which lead children from more disadvantaged backgrounds to be more successful than expected. Do similar factors explain both the overall differences *between* children from different parental backgrounds and specific differences *within* the group of those from disadvantaged families? For example, does a more positive family environment or living in a more advantaged area improve poor children’s chances of achieving more equal outcomes? Are some factors or combinations of factors key in explaining differences in the development of cognitive and non-cognitive skills among socially disadvantaged children? This study will examine data from Growing Up in Scotland (GUS), a longitudinal survey which follows the lives of thousands of children from birth to teenage years.

The information analysed will include: (a) family resources (cultural, social and economic), parent-child interactions, parental health and aspirations and (b) neighbourhood factors, both objective (e.g. economic (dis)advantage) and subjective (e.g. services available, perception of safety). Our outcomes will consist of various measures of cognitive and non-cognitive skills collected at different points in time between the ages of 3 and 10. They include the ‘Listening Comprehension’ subtest of the Weschler Individual Achievement Tests and the Goodman’s strength and difficulties questionnaire.

Social Disparities, Mother-Child Interaction and Measures of Child Development: Evidence from the Infant Cohort Study of the NEPS

Manja Attig, Leibniz Institute for Educational Trajectories, Germany; Gwendolin Bloßfeld, Sabine Weinert, University of Bamberg, Germany

Disparities according to family background emerge early in development. Already at the age of 3, social disparities were found in cognitive and language abilities. In addition, the family background has an impact on the quality of mother's interaction behavior, which is essential for the development of the children. Based on these findings the following three questions arise: When and how do disparities emerge? How do they interact with the quality of mother's interaction behavior? How do they develop over time?

Using data of the infant cohort study of the German National Educational Panel Study (NEPS), the present study analyses social disparities with regard to the mother-child interaction behavior and indicators of child development. Additionally, we compare the results over different waves (wave 1 and 2). Firstly, the present study investigates disparities in the second year of life (wave 2). Interaction behavior of the mother, the child as well habituation strength (as indicator of learning resources) were used as dependent variables in stepwise linear regression analyses and socio-demographic family background (e.g. education), further characteristics of the mother (e.g. psychological stress) and child characteristics (e.g. temperament, age) were used as predictors. While learning resources at the age of 17 months did not show disparities related to educational background, mothers' interaction behavior did ($\beta=.07^*$). Early differences associated with the education of the mother were observed in the children's socio-emotional interaction behavior ($\beta=.08^*$), but disappeared when mothers' interaction behavior was taken into account ($\beta=.03$, $p=.44$). Further, associations between the interaction behavior of the mother and child were found.

Finally, these findings will be compared with results from wave 1 and possible changes from the first to the second year of life will be investigated. Findings are discussed with respect to the emergence of disparities in child development based on social and educational family characteristics.

A Latent Growth Curve Model of the Relationship Between Home Computer Usage and Academic Performance in a Nationally Representative Sample of Irish Children Aged 9 to Late Adolescence

Desmond O' Mahony, Economic and Social Research Institute, Ireland

Increased use of computers at home and school is current government policy in Ireland (Digital Strategy for Schools, 2017). Along with a continued growth of computer ownership and increasingly available broadband connections, Ireland has seen a greater number of children using computers and accessing the internet from a young age (Eurostat, 2005). This paper will conduct a longitudinal exploration of the link between children's home computer use and their academic performance in the areas of reading and mathematics. Linked data from the Child Cohort of the Growing Up in Ireland Survey at nine-years ($N = 8,568$), thirteen years ($n = 7,525$), and when available, 17 years ($n = 6,450$) will be used for this study (ESRI, 2010). Latent Growth Curve (LGC) modelling will be used to explore longitudinal changes in computer usage and the associated relationship that this has with academic performance from childhood into early adulthood. Previous research using the 9 year-old GUI cohort (Casey, Layte, Lyons, & Silles, 2012) revealed that engagement with computers through internet surfing for fun had a positive and significant relationship reading and mathematics performance at age 9: $\beta = 0.16$ $p < .05$, and $\beta = 0.05$ $p < .01$. Whereas use of instant messaging showed a negative relationship with reading $\beta = -0.16$, $p < .05$. The current study aims to extend this finding using LGC to account for inter wave attrition as well as non-linear changes over time in both computer usage and in academic performance (Musu-Gillette, Wigfield, Harring, & Eccles, 2015). The findings of this research will add to the body of knowledge on how computers can be best used in the home to promote beneficial academic outcomes.

9B PAPER SESSION: EDUCATION

A Latent Classes Mixed Models Approach to Analyze Childs' Nutritional Trajectory and School Performance

Alejandra Marroig, Universidad de la Republica, Uruguay; Graciela Muniz-Terrera, University of Edinburgh, UK

The aim was to analyze the nutritional trajectory of a cohort of Uruguayan boys and girls in school age and its association with school attendance. With this purpose, Latent Class Mixed Models and Joint Latent Class Mixed Models were fitted. In sex-stratified analyses, we identified groups of children (latent classes) with similar nutritional trajectories and the association of these classes with school dropout. We evaluated the role of household income, maternal educational attainment, size at birth and weight at birth on class specific trajectories. The model identified three groups of boys and girls according to their nutritional trajectories during school years. A group of girls followed a normal nutritional trajectory (49%) for age, another exceeds the overweight threshold (42%) and a third group has overweight (9%). Amongst the boys, we identified a group with a normal nutritional trajectory (71%) for age, another have overweight for certain ages (21%) and, finally, a smaller group of obese boys (8%). The group of overweight girls was characterised by greater weight and height at birth, however we found no differences in their mothers' educational attainment nor in household income. The group of obese boys was heavier at birth, but size at birth did not show significant differences. In addition, obese and overweight boys have mothers with superior educational attainment and higher household incomes. Regarding the relationship between nutritional trajectory and school performance, results indicates that boys drop out at younger ages than girls. However, no association between school dropout and the nutritional trajectory classes was found. None of the groups exhibited a deficit or decrease in nutritional status during school period, although the group with overweight or obesity could be of concern and the object of future research.

How do Trajectories of Disadvantage and Social Capital Relate to Allostatic Load?

Lucy Prior, David Manley, Kelvyn Jones, University of Bristol, UK

Utilising biosocial perspectives in lifecourse research offers a method for understanding the mechanisms of health and place relationships over time. We investigate the biosocial stress pathway, which posits that those in deprived circumstances are exposed to a higher degree of stressful experiences, over time resulting in an accumulated stress burden which relates to the poor health highlighted in studies of health inequalities. We do this by evaluating how trajectories of disadvantage, both individual and of the neighbourhood, relate to later allostatic load, representing the cumulative, physiological 'wear and tear' of exposure to stressors. We also explore how levels of social capital over time interact with trajectories of disadvantage, investigating whether there is a stress buffering effect that dampens the negative impacts of exposure to disadvantage. This paper uses data for Great Britain from the British Household Panel Survey (BHPS) and Understanding Society which incorporated the BHPS from Wave 2 onwards: 20 waves of data are used in total, covering the period 1991 to 2012. Biodata for BHPS participants at Wave 3 of Understanding Society is used to construct indices of allostatic load. We use multilevel latent class analysis to identify groups of exposure trajectories over time, using these groups to predict allostatic load at the final wave. We expect to find that worsening and persistent exposure to disadvantage is related to a higher burden of stress and thus to worse allostatic load. We anticipate a compounding effect of exposure to neighbourhood disadvantage which heightens the impact of deprived individual circumstances but that high social capital over time may act to alleviate the detrimental influence of disadvantaged trajectories. This paper adds to the literature on health and place, and provides insight into the biosocial mechanisms that produce and maintain health inequalities over time.

Revisiting the Causal Relationship Between Education and Health: Evidence from NEPS

Jacqueline Lettau, Leibniz-Institute for Educational Trajectories, Germany; Guido Heineck, University of Bamberg, Germany

The positive link between education and health is widely documented across different disciplines, including medical sciences, sociology, and economics. Yet, many studies provide evidence based on statistical associations so that it is unclear whether the relationship is causal or not. Although it is plausible to suggest that education may foster individuals' health and health behavior by, for example, providing more and relevant information on the detrimental effects of, say, smoking, establishing causality is not trivial as it may as well be argued that it is good health that may be a prerequisite for acquiring human capital in the first place. A growing body of research therefore attempts to identify the causal relationship between education and health by exploring exogenous variation. We add to this literature by providing evidence from the German National Educational Panel Study (NEPS). Our approach closely follows Kemptner et al. (2011, Changes in compulsory schooling and the causal effect of education on health: Evidence from Germany. *Journal of Health Economics* 30, 340- 354), i.e. we use an instrumental variable approach based on a reform in former West Germany, where compulsory schooling was extended from 8 to 9 years across federal states at different points in time between 1949 and 1969. Our empirical analyses are based on data of the starting cohort 6 of the NEPS, from which we use cohorts born between 1944 and 1960, so that we are able to examine the long-term health effects of education. The health measures we look at are subjective health status, the short form of the health questionnaire SF12, individuals' BMI, smoking behavior, alcohol consumption and physical activity.

First results are in line with the hypothesis, that education is not only positively associated to health, as approximated by our measures, but also has a causal impact.

Educational Plans at the End of Compulsory Education: Intra-Individual Changes Under Changing Societal Conditions

Annalisa Schnitzler, German Federal Institute for Vocational Education and Training (BIBB), Germany

Recently German adolescents have begun to disregard Vocational Education and Training (VET) as a desirable educational option after finishing compulsory education. Instead, there is a general trend towards staying at school longer in order to achieve a university entrance certificate. Against this background, this contribution investigates which adolescents still see their future in VET and which, especially social, influences shape this decision. Based on previous research on educational and vocational choices of adolescents (Boudon 1974; Bourdieu 1987; Eccles et al. 2004; Super et al. 1996) the focus is on the relevance of the social environment, attitudes, school performance and practical experience for the choice between beginning an apprenticeship in VET versus continuing with school. Analyses based on more than 5.000 pupils from two waves of starting cohort 4 of the German National Educational Panel Study (NEPS) from 2010/ 2011 reveal effects of all postulated influence factors: Pupils at the beginning of grade 9 who prefer taking up an apprenticeship have a less ambitious social environment, show lower school performance and are more advanced in their vocational orientation process than pupils planning to continue with school. In the course of grade 9, more than one third of the sample change their plan from "apprenticeship" to "continuing with school". This intra-individual change of plan is most distinctly influenced by perceptions of chances of success and practical experience. Taking into account the initially mentioned recent societal tendencies towards academic education and changes in the apprenticeship market, a longitudinal design with different cohorts facing different societal conditions can help to investigate the relevance of the identified factors in the wake of these changes. Therefore, additional analyses compare starting cohort 4 and a younger starting cohort (3), who entered grade 9 in 2014, when the situation on the apprenticeship market had already shifted substantially.

9C PAPER SESSION: HEALTH BEHAVIOURS

Family Structure and Physical Activity: A Life-Course Analysis

Benedetta Pongiglione, Mark Hamer, David Bann, Alice Sullivan, George B. Ploubidis, UCL Institute of Education, UK

It is known that over the life course the level of physical activity tends to change and decrease in adult age. To answer why this may occur, we study how life course events affect the level of physical activity focusing in particular on family structure and relations. The hypothesis is that one of the reasons why engagement in physical activity declines is related to time availability and time management. Family relationships can reduce the time that individuals have for themselves, and therefore to do physical activity. We use data from the National Children Development Study to investigate whether changes in marital and parental status, as well as looking after own parents influence changes in level of physical activity using fixed effects model, controlling for a number of time-varying variables, including health-related conditions. As a second step, we relax the assumption of non-reciprocal association between exposure and outcome and time-varying confounders implied in fixed-effects methods and use generalised methods of moments (i.e. dynamic fixed effects).

Results show that prevalence of physical activity fluctuates from early to late adulthood and is lowest at the latest observation time point (age 55). We find limited influence of family structure on physical activity, with married/cohabiting individuals and individuals looking after their parents more likely to be inactive.

Socioeconomic Patterning of Vaping Among UK Youth and Adults

Michael Green, University of Glasgow, UK

Smoking is a major contributor to health inequalities worldwide, so socioeconomic patterning of e-cigarette use (or vaping) as a healthier alternative to cigarettes could have important implications for health inequalities. E-cigarettes have been controversial because possible health impacts of vaping can vary depending on life-stage and smoking status. Vaping among adult current and ex-smokers may be viewed positively as indicative of either success in or steps toward smoking cessation. Nevertheless, vaping among never smokers, particularly youth, is concerning since little is known about the long-term health effects of vaping, and a nicotine addiction could potentially lead to cigarette use. Socioeconomic patterning of vaping by household education, occupational status and income was examined with logistic regression in a nationally-representative, cross-sectional survey of UK households (n=32,977 adults aged 16+ and n=2,373 youth aged 10-15), adjusting for gender, age, UK country, ethnicity, family structure and parental behaviour (for youth). Among adults and youth who had never smoked (n=16,028 adults and n=2,199 youth) vaping was rare (1.2 and 1.4% respectively) but more likely for youth whose parents were in routine compared to managerial/professional occupations (OR: 6.13; 95%CI: 1.2-31.1). There was no socioeconomic patterning of vaping among adult never-smokers. Current smokers with no qualifications were less likely to be vaping (OR: 0.74; CI: 0.56-0.99) compared to those with degrees. Sole use of e-cigarettes compared to continued cigarette use among ever-smokers was less likely for those with less education (e.g. OR for no qualifications compared to a degree was 0.30; CI: 0.19-0.46). Where vaping is most concerning (i.e. among youth who have never smoked) it was more likely for those in socioeconomic disadvantage. Where vaping could be beneficial (i.e. among adult current or ever smokers), it was more likely for those in more advantaged socioeconomic positions. If these trends continue, e-cigarettes will exacerbate inequalities in health.

The Importance of Husbands' Education for Health-Related Behaviors Among Women: Evidence from a Population-Based Study in Japan

Keiko Murakami, Teikyo University School of Medicine, Japan; Hideki Hashimoto, University of Tokyo, Japan

Background: Several studies have demonstrated associations of spousal education with self-rated health and mortality, but few studies have examined associations with health-related behaviors. This study aimed to examine the contribution of husbands' education to health related behaviors among community-dwelling Japanese women.

Methods: A questionnaire survey was conducted in community-dwelling adults aged 25-50 years in Japanese metropolitan areas. A total of 1575 married women agreed to participate and completed the survey. Health-related behaviors were poor dietary habits, lack of exercise, and heavy drinking. Multiple logistic regression analyses were conducted to determine the associations of women's own or husbands' educational attainment with each health-related behavior after adjusting for age, municipality, employment status, equivalent income, and husbands'/own educational attainment. The associations between couples' combined educational attainment and health-related behaviors were also examined.

Results: Women's own education, not husbands' education, was significantly associated with dietary habits; the odds ratio (OR) of high school education or lower compared with university education or higher was 2.15 (95% confidence interval [CI], 1.34–3.45). Low educated women with low-educated husbands had significantly higher risk of poor dietary habits compared with high-educated women with high-educated husbands; the OR was 1.91 (95% CI, 1.21–3.02). Neither women's own education nor husbands' education were significantly associated with lack of exercise and heavy drinking. High-educated women with low-educated husbands had higher risk of lack of exercise than high-educated women with high-educated husbands; the OR was 1.40 (95% CI, 1.01–1.94). High-educated women with low-educated husbands also had higher risk of heavy drinking than high-educated women with high-educated husbands; the OR was 2.02 (95% CI, 1.27–3.24).

Conclusions: Husbands' education as well as own education was important for health-related behaviors among community-dwelling Japanese women. This finding indicates that public health interventions should pay attention to the social context in which women live.

Parents' Adverse Childhood Experiences and their Children's Behavioral Health Problems

Adam Schickedanz, Neal Halfon, Paul Chung, University of California Los Angeles, USA; Narayan Sastry, University of Michigan, USA

Background and Objectives: Adverse childhood experiences (ACEs) include stressful and potentially traumatic events associated with higher risk of long-term behavioral problems and chronic illnesses. Whether parents' ACE counts—an index of standard ACEs—confer intergenerational risk to their children's behavioral health is unknown. This study estimates the risk of behavioral health problems in children whose parents have different ACE counts.

Methods: Retrospective information on nine ACEs (including sexual abuse, physical abuse, emotional abuse, neglect, parent death or estrangement, divorce, parental substance abuse, parental mental illness, intimate partner violence) self-reported by parents, as well as parent reports of 1) behavioral problems (using the Behavior Problem Index), 2) attention deficit hyperactivity disorder (ADHD) diagnosis, and 3) emotional disturbance diagnosis in their children, were collected through the Panel Study of Income Dynamics 2013 Main Family Interview File and the linked Childhood Retrospective Circumstances Survey and 2014 Childhood Development Supplements. Multivariate linear and logistic regression models were used to estimate child behavioral health outcomes by parent retrospective ACE count.

Results: Children of parents with a history of four or more ACEs had on average a 2.4-point (95% CI 1.5-3.3) higher score on the Behavioral Problems Index, 2.0 times (95% CI 1.1-3.7) higher odds of hyperactivity, and 4.0 times (95% CI 1.6-10.4) higher odds of an emotional disturbance diagnosis than children of parents with none. Maternal ACEs showed a stronger association with child behavior problems

than paternal ACEs. Relationships between the nine component ACEs individually and the Behavior Problems Index score showed consistently positive associations.

Conclusions: Parents with greater exposure to ACEs are more likely to have children with behavioral problems. Parent ACE count may have utility as a risk stratification tool for prevention or early detection of child behavior problems.

9D PAPER SESSION: PLACE

Quantifying the Importance of Selective Migration on Neighbourhood Effects: A Life Course Approach

Emily Murray, Owen Nicholas, Stephen Jivraj, University College London, UK; Paul Norman, University of Leeds, UK

Neighbourhood effects research is plagued by the inability to circumvent selection effects – the process of people sorting into neighbourhoods they can afford. In this paper we directly test this hypothesis by determining whether negative neighbourhood effects can be counterbalanced by moving to a less deprived area of residence, or whether movement is a selection effect of healthier people moving to less deprived places. Our project has conducted new linkage of the 1958 National Child Development Study [NCDS] and the 1970 British Cohort Study cohorts [BCS70] - comprising more than 17,000 births in each study – to historical census socioeconomic data (1971, 1981, 1991, 2001 and 2011) that has been recalculated to reflect consistent 2011 lower super output level boundaries. Neighbourhood deprivation is based on the Townsend Index, a summary measure incorporates four variables: Unemployment (as a percentage of those aged 16 and over who are economically active); Non-car ownership (as a percentage of all households); Non-home ownership (as a percentage of all households); and Household overcrowding. We use this new data to test residential health selection using Jokela's (2014) approach of modelling movement to a more or less deprived neighbourhood by health characteristics. We will then model our health and well-being outcomes including and excluding movers, and by including effects for type of move and length of residence in a deprived neighbourhood to better understand the importance of selective migration.

Citizenship and Immigrants' Labour Market Outcomes in Western Europe

Ivana Fellini, Raffaele Guetto, University of Milano-Bicocca, Italy

The aim of this paper is twofold. The first is to address the labour market effects of citizenship across 'old' and 'new' immigration countries. The second is to disentangle the question on whether migrants who naturalize do better on the labour market because the naturalization helps them or because it is taken up by those who perform better anyway. That is, whether citizenship has "causal" effects on labour market outcomes. In a first cross-sectional analysis of EU-LFS data we find citizenship having a positive effect on employment in Belgium, Germany, the Netherlands and France, but a negative effect in Italy and Greece. We find an overall positive association with job quality however, stronger in the Southern European countries. In a second step of empirical analysis we treat the 2007 expansion of the EU, granting EU-citizenship rights similar to those granted by naturalization to Romanian and Bulgarian immigrants, as a quasi-experiment. The benefit of this design is that, in lack of proper longitudinal data at the individual level, we can assess whether citizenship has "causal" effects on immigrants labour market outcomes. Such effect of the EU-citizenship is obtained through a difference-in-differences estimator. We find a strong positive effect of the improved legal status in central European countries (about 16 percentage points increase) and a negative effect in Italy and Spain (about 4 percentage points reduction) on employment probability. This negative effect in Southern Europe suggests that naturalization reduces the pressure to accept any kind of job in a context of precarious legal status, high demand for unskilled work and limited welfare provision. However, in Southern Europe the access to EU citizenship is associated with better job quality and higher probability of self-employment among Romanian and Bulgarian immigrants.

Understanding Belonging in Time and Space: The Role of Nostalgia and Memories in Times of Rapid Social Change

Hernan Cuervo, Julia Cook, University of Melbourne, Australia

This paper examines how a group of middle-aged adults in Victoria, Australia, use nostalgia and childhood memories to construct a sense of belonging in contexts of rapid social change. We draw on data from a two-decade mixed-methods longitudinal study that tracks the lives of two generations of Australians. In this paper, we focus on our older cohort who have been participating in this study since they left secondary school in 1991. We primarily use interview data collected in 2012 from 35 participants in Victoria, Australia, aged 38-39, in which they were asked to reflect on their lives over the previous 20 years, focusing specifically on those who have either remained in or returned to the areas in which they grew up.

In a context of profound social change in education, work, family formation and the nature and type of communities people live in, we argue that belonging has become a central sociological concept to understand how individuals cope with these social transformations. In this paper, we consider whether the concepts of nostalgia and memory can aid individuals in navigating these social changes. While these concepts have generally been associated with studies of collective, often national forms of belonging, we examine how individuals who have remained in or returned to the places in which they grew up make use of nostalgia and memory in everyday, individual ways to construct a sense of belonging. Further, we find that contrary to a plethora of studies equating nostalgia with a sense of loss or a past that cannot be recreated, participants in this study ascribe a positive connotation to nostalgia and childhood memories. This, we argue, enables them to use the past to enliven the present in a way that is formative of belonging in contemporary contexts otherwise shaped by rapid social change.

Biographical Turning Points and the Transnational Lives of the Second-Generation Youth

Daniela Cherubini, University Ca' Foscari Venice, Italy; Ilenya Camozzi, University of Milan-Bicocca, Italy

The paper engages with the transformations of the transnational ties and practices over time, among a group of young descendants of migrant parents in Italy. The analysis draws on a qualitative case study involving young men and women of Egyptian background living in Milan (aged 18-24), which explores their experiences of the Uprisings that burst in 2011 in the parents' country. The paper focuses on the impact of this key historical event on the biographical constructions and the transition to adulthood of these subjects. Drawing on recent contributions to the debate on transnationalism and the so-called second-generation youth, which suggest developing a diachronic and/or longitudinal approach to the issue, our analysis sheds light on how the transnational experience of these young people may change over the life course. Special attention is paid to changes occurring not only in relation to the traditional markers of the transition to adulthood, but also in correspondence to other heterogeneous turning points. Among them, we contend, the participation to the political and social changes in the parents' country may play a crucial role.

9E SYMPOSIUM

How Longitudinal Research Helps UNICEF to Improve the Lives of Children

Convenor: Prerna Banati, UNICEF, India

The global community is looking for more and better longitudinal research to spotlight complex, enduring problems that prevent children from achieving their full potential. Longitudinal studies are now widespread throughout the globe, including in poor country settings with weak infrastructure. Increasingly, organizations such as UNICEF are engaged in longitudinal knowledge generation to inform policy and advocacy. This panel introduces examples of longitudinal studies contributions to country responses to SDG challenges. Panelists from UNICEF Country offices will share findings from their longitudinal studies in Cambodia, Thailand, Tanzania and Mozambique, describing the challenges and opportunities undertaking research in low and middle income settings. Concretely, the panelists will describe how their studies have shaped policy priorities; contributed to innovative programming; supported advocacy efforts; and stimulated partnerships with key stakeholders. UNICEF's Office of

Research at Innocenti hosts the Global Longitudinal Research Initiative, a peer learning group of over thirty longitudinal studies working with data on children in low, middle and high income countries.

Arnaud Lailou from UNICEF Cambodia will present on Cambodia's Longitudinal study in North East and PP. The longitudinal study was launched in 2016, to help identify challenges in health, nutrition, water, sanitation, hygiene and early childhood education affecting children under five years and pregnant women. The study involves 4,000 children to determine the impact of an integrated approach on social outcomes for children younger than five years old. It involves MoH, MAFF and IRD and agents at service delivery levels and beneficiaries. This study links grassroots-level findings to relevant multi-sector high-level stakeholders involved in legal framework strengthening and aims to promote most-effective service system development for better health outcomes in Cambodian women and children. UNICEF and MoH, MAFF and IRD implemented a longitudinal study on early childhood development by following the cohort of children under five. Cases of malnutrition among children and women were detected and treated or referred to health facilities for better care. Key bottlenecks identified were addressed immediately. This included installation of solar panels at health centres without electricity; 28 study locations received audio-visual communication on WASH, nutrition and health, reaching more than 60,000 individuals. The findings, complemented with additional qualitative research, informed development of key communication messages to promote demand and accountability for services. According to results from study, the proportion of children 0-5 months exclusively breastfed is 10 per cent in Phnom Penh, 67.5 per cent in Kratie and 65.2 per cent in Ratanakiri. Phnom Penh may fail to reach the urban target of 50 per cent. However predominant breastfeeding is used by more than 95 per cent of mothers in the northeast and more than 75 per cent of mothers in Phnom Penh. UNICEF continued to promote proper breastfeeding and complementary feeding by mass campaign, enforcement of the code and other several activities.

Andrea Rossi from UNICEF Mozambique will present from the Longitudinal Study on Primary Education Drop out. Attendance and retention in primary schooling is increasingly becoming a key challenge which requires particular attention from different stakeholders. The Mozambican Government is committed to address this issue by investing in tailor-made policies and programs that will contribute to the reduction of absenteeism and dropout rates. The Longitudinal Study on Primary Education Drop Out is part of the governmental strategy for education inclusion and is expected to provide solid information on the causes and trends of dropout. In particular, it will feed the debate around dropout in primary education in Mozambique by exploring and understanding their influencing factors. Although school absenteeism and dropout in primary education is gaining increasingly importance in the development arena and figures on the proportion of children leaving school is available annually in Mozambique, far less is known on the patterns and reasons of school abandon. A few studies have been conducted in Mozambique to explore the reasons for not attending school, however they are limited geographically and in the sample size. Further, while strong emphasis has been put on studying and understanding barriers to education in girls, very little has been researched about the reasons for boys to drop out. This study investigates the causes and trends of absenteeism and dropout by analyzing the results of a representative sample at national level. It explores how factors influence both boys and girls in remaining or leaving school. Further, this research will collect data on the same children in different points in time, allowing for an in-depth analysis of this phenomenon.

Tia Palermo from UNICEF's Office of Research Innocenti presents findings from an impact evaluation of a cash plus programme in Tanzania. The study examines the potential for an additional plus component targeted to youth layered on top of a government cash transfer program to reduce violence, abuse and exploitation and facilitate safe transitions to adulthood, recognizing that cash alone is rarely sufficient to mitigate violence risks and to overcome structural barriers to education, delaying marriage and pregnancy, and other safe transitions. The model proposed for this intervention utilizes an asset-building framework, which recognizes that youth need a combination of social, health and financial assets to safely transition to adulthood. Using the Livelihoods Enhancement component of the existing government cash transfer programme (Tanzania Social Action Fund's Productive Social

Safety Net) as a strategic entry point, this intervention and study aims to examine how economic empowerment and linkages to other existing and new services enable youth to leverage their households' participation in the government cash transfer programme, which aims to reduce extreme poverty and break the intergenerational cycle of poverty, to increase their well-being today as well as opportunities for their future. The intervention is coordinated by UNICEF Tanzania, and the research study and impact evaluation is being overseen by UNICEF Office of Research and Economic Development Initiatives, a Tanzanian research institute. The study design is a cluster randomized control study with a mixed methods approach, triangulating data from communities, health facilities, households and adolescents. Results will inform design of future iterations of the Government's social protection and provide innovative programmatic guidance on supporting violence prevention and the safe transition of Tanzanian youth.

Christina Popivanova from UNICEF Thailand will present findings from a longitudinal mixed method study investigating the impact of parental migration on early childhood well-being and development in Thailand. The study setting was one northern and one north-eastern province, each with high outmigration rates. The survey collected information of 984 children of age three or younger, of which approximately 60 per cent live in households with both parents absent, 20 per cent for children with the father absent and another 20 per cent for children with both parents at home. The study compares children living in these three types of households at two points in time to assess whether children's outcomes are affected by parental migration. In addition to interviewing caretakers and parents at the child's household, the Denver Development Screening Test (II) tool was used to assess whether children had suspected delayed development (usually measured at the district health centre), and children were weighed and measured to assess their malnutrition status. In total, 984 children were included in the analysis. The qualitative approach included in-depth interviews with 20 caretakers, 15 migrant parents and 10 returned migrant parents.

Perna Banati from UNICEF's Office of Research at Innocenti is the coordinator of UNICEF's Global Longitudinal Research Initiative (GLORI), a network of over thirty longitudinal studies focused on child wellbeing operating in low, middle and high income countries. As part of the Sustainable Development Agenda, there are growing calls for a 'data revolution' to generate more and better quality data that can be used systematically to inform and evaluate policies and programmes. Longitudinal data have the potential to generate invaluable insights into the nature of development processes, who is being left behind and, consequently, inform the policies needed to effectively meet SDG targets. However, these studies are still an underutilised resource for national development planning. Findings are too often disconnected from policy platforms and results are not systematically coordinated with policy and programme decision-making cycles. In 2014, UNICEF Innocenti launched the GLORI network to address some of these challenges by facilitating and 'democratizing' access and use of methods and findings to globally inform the best policies and interventions to advance children's development. The GLORI Secretariat is based at UNICEF's Office of Research-Innocenti, and seeks to support the Network towards the harmonisation and validation of existing findings from cohort studies; lead in the development of cutting-edge methods, tools and resources; coordinate North-South and South-South capacity building and training in longitudinal research; and create effective linkages between cohort studies and programme and policy fora. This presentation describes the challenges and opportunities of working in longitudinal research today, as identified through a survey of network members. It presents directions for the network going forward, and discusses research priorities in its 2018-2021 workplan.

9F SYMPOSIUM

Innovative Perspectives on School-to-Work-Trajectories in Europe

Convenors: Brigitte Schels, Juliane Achatz, Institute for Employment Research (IAB), Germany; Christian Brzinsky-Fay, Berlin Social Science Centre (WZB), Germany

Over the past decade, the growing number of studies on school-to-work transition patterns illustrates an increasing variety of trajectory types resulting from societal trends such as individualisation and flexibilisation. In sum, results are in line with the discourse on increasingly complex life courses shaped by institutional settings and unequal individual resources. The aim of this symposium is to enrich insights on school-to-work transitions by findings from recent studies in this strand of research. It brings together contributions from sociology, psychology, and economy. We identify the following major perspectives that cut across: studies investigate the interplay of agency and structure in school-to-work transitions, unravel differences between different sub-stages of the transition process, and particularly focus on gender differences. The first presentation will give critical considerations of the constraints of social structures within trajectories by looking on individual agentic resources that enable young men and women to steer the course of their lives. The second and third presentation will compare male and female patterns in the very early transition and at a later stage of the labour market entry process using different measures for turbulence. The last presentation explores, how childbirth shapes labour market trajectories of young mothers.

Can Individual Agency Compensate Against Family Disadvantage in the School-to-Work Transition?

Presenter: Ingrid Schoon, UCL Institute of Education, UK

The current study assesses whether individual agency serves as a resource substitute for family disadvantage in the transition from school-to-work. In particular, the question is if individual agency enables young people to avoid negative experiences, such as a problematic school-to-work transition, even if they are exposed to severe family hardship. The study is guided by an integrative developmental-contextual model of individual agency taking into account person-context interactions. Family adversity is conceptualised through the combination of multiple risk factors, such as low levels of parental education, low parental occupational status, parental worklessness, single parenthood, and lack of home ownership, which are combined into a summary risk index. Agency is conceptualised as a multi-dimensional construct, involving indicators of intention, foresight, self-efficacy, valuing education and effort. The study also takes into account the role of parental educational aspirations and expectations for their children, testing for processes of co-regulation. The study draws on data collected for the Longitudinal Study of Young People in England (LSYPE) and Next Steps. We could identify a group of young people who avoided the experience of not being in education, employment or training (NEET) despite exposure to high levels of family adversity. Individual agency factors that appear to reduce the negative impact of family adversity in the school-to-work transition point in particular to the role of foresight and valuing education. Moreover, we find evidence of parental co-regulation - highlighting the crucial role of parental support for higher education in smoothing the way towards better life chances.

Gender Inequalities in the Early Labour Market Experience of Young Europeans

Presenter: Gabriella Berloff, University of Trento, Italy

This work investigates when gender inequalities in labour market outcomes emerge and how they evolve during the early labour market experience of young Europeans. Using EU-SILC longitudinal data from 2006 to 2012, we examine youth labour market integration by focusing on individual trajectories—i.e., monthly sequences of employment statuses over a period of few years— and considering the timing, order, and length of employment, unemployment and inactivity spells. More specifically, we compare young people's labour outcomes in two phases of their transition into the labour market: i) the school-to-work transition (i.e. entry into the labour market); and ii) the early career, around five years after leaving education. This differentiation of stages in early working life is important because many young adults face unemployment or frequent job changes, combined with repeated unemployment spells, also later, when the turbulent school-to-work period should be overcome. Empirical findings suggest that female and male school leavers face the same difficulties in the first phase of their working life. They have the same chances to enter rapidly into paid work or to be stuck in a problematic trajectory in the first three years after education exit. In contrast, gender inequalities in labour market outcomes emerge in the second

phase (i.e. around 5 years after having left education). In particular, women face disadvantages as they have less chances to remain continuously employed, especially (but not only) after motherhood. We also consider country differences in labour market regulation. A more stringent regulation of permanent contracts creates difficulties for women in their school-to-work transition, but has no effect in the second phase. A more stringent regulation of temporary contracts has no effects in the first phase, whereas it improves the chances of being employment-secure for all individuals in the second phase, with larger effects for women.

Quality Measures of School-to-work Transitions

Christian Brzinsky-Fay, Berlin Social Science Center, Germany

The increasing complexity and de-standardisation of school-to-work transitions makes a normative assessment of their quality more difficult and sensitive. Though, such assessments are necessary and helpful, because school-to-work-transitions have a predefined objective – namely the integration of young people into the labour market. At least policy makers are confronted with the question of whether and how to influence or adjust these pathways. The paper proposes a couple of quantitative measures to assess transitions between education system and labour market from different normative perspectives. The measures are based on sequence analyses of longitudinal life course data with discrete time intervals. In the literature, concepts such as volatility, turbulence or integrative potential are discussed, but rarely examined regarding their (construct) validity. Using concrete individual cases and data from different countries, the measurement effects of these indicators will be discussed and compared. Another issue is the question how school-to-work transitions can be determined regarding their start and end and whether it is necessary to evaluate them only in retrospect by using later information – such as occupational status after five years – or whether it is possible and useful to evaluate them by their structure itself.

Young Mothers in NEET: The Economic Activity of Parents and Partners

Presenter: Alexander Dicks, Maastricht University, Netherlands

In this paper we investigate why some young mothers (16-24) become NEET while others reintegrate into the labour market or education. One increasingly important source of support for young mothers is provided by the grandparents. Based on the life course perspective of linked lives, we study the availability of grandparents to provide care. The availability of grandparents to provide care firstly depends on their own employment and living situation. It also depends on the spatial distance between the respective places of residence: presumably to facilitate care giving, recently separated mothers were found to move closer to their own mother and sometimes also to co-reside with their own mother. We combine both economic availability and spatial availability of grandparents to study their effect on the labour market and education trajectories of young mothers. For this, we use population data from Dutch population registers. We use synchronised sequence analysis to map out labour market trajectories before and after giving birth for the first time. This exploratory view guarantees the representation of trajectories that otherwise might be underrepresented in conventional survey designs.

9G SYMPOSIUM

Stockholm Birth Cohort – New Research Horizons

Convenor: Ylva B Almquist, Stockholm University, Sweden

This symposium aims to introduce the Stockholm Birth Cohort (SBC) study, to provide an overview of the main ongoing projects, and to encourage future interdisciplinary and international collaborations.

The SBC comprises 14,294 subjects born in 1953 and currently followed up to the age of 56. Over the last three decades, studies on the SBC have contributed to the field of life-course research, providing important insights into intergenerational transmission of disadvantage and the mechanisms through which disadvantage emerges. Our current research seeks to understand better sibling and peer influences on adult outcomes, disentangling independent and buffering effects. We are currently focusing, for example, on comparisons between criminal trajectories in order to investigate successively potential similarities within peers' networks. We also explore the relative associations between family background and peer network contexts and the risk of early childbearing—an important endeavour given the potential negative outcomes of early childbearing for parents and their children. Special attention is moreover paid

to the exceedingly poor outcomes of children with experience of out-of-home care and the factors that might buffer against such outcomes. Our final goal is to identify the pathways through which childhood living conditions translate into later-life outcomes, and the improvement of social policies.

A Decade Lost: Does Educational Success Mitigate the Increased Risks of Premature Death Among Children Who Experience Out-Of-Home Care?

Presenter: Ylva B. Almquist, Stockholm University, Sweden

Co-authors: Josephine Jackisch, Karl Gauffin, Anders Hjern, Hilma Forsman, Bo Vinnerljung, Lars Brännström

Placement in out-of-home care (OHC) is one of the most far-reaching interventions targeting children who are abused or neglected by their parents or adolescents with serious conduct problems and delinquency. Past research has consistently identified children with OHC experience as a high-risk group for premature mortality. While many have argued that educational success is a key factor in reducing these individuals' excessive death risks, the empirical evidence has hitherto been limited. Based on the Stockholm Birth Cohort of 1953 (n=14,294), this study examined the association between experience of OHC (ages 0-19) and premature mortality (ages 20-56) and, moreover, the potentially mitigating role of educational success (ages 13, 16, and 19) for this association. In line with past research, results from Cox regression analysis showed more than a two-fold risk of premature mortality among individuals with OHC experience. Unadjusted Laplace regression analysis showed that these children, based on the median, died more than a decade before their majority population peers. However, the results also showed that elevated mortality risks were not an inevitable fact among children with experience of OHC. At age 13, they had to perform above average to reach the same mortality risks as children without experience of OHC who had at/below average or missing marks. Above-average performance at ages 16 and 19, however, was linked to relatively low mortality risks among children with and without experience of OHC alike. These findings confirm the great potency of education in reducing hazards among an exceptionally vulnerable population.

Exploring the Relative Influence of Family Background and Peer Networks on Early Childbearing

Presenter: Robin S. Högnäs, Stockholm University, Sweden

Co-authors: Ylva B. Almquist, Alessandra Grotta, Stockholm University, Sweden

Adolescence is a time during which children undergo a wide range of life-altering changes, although they continue to depend on their parents for most of their primary needs. Adolescents also form relationships that shape their life course trajectories, directly and indirectly. For example, in addition to peer influences on behaviors, young men and women form romantic partnerships, initiate sex, and sometimes bear children together. Prior research has shown that family background is associated strongly with the risk of early childbearing. Research has also shown that peers are important—findings suggest similarities in adolescents' contraceptive use, sex debut, and number of sex partners—all of which increase the risk of early childbearing.

While prior research has emphasized family and peer influences on early childbearing, we do not understand well the conditions under which parents or peers more strongly influence early childbearing. In addition, in terms of predictors of early childbearing, the extant literature has largely focused on the U.S. This paper will use data from the 1953 Stockholm Birth Cohort Study to extend prior literature in two ways: 1) examine the significance of family background on early childbearing in Sweden; 2) examine the relative importance of family background and peer influences on early childbearing. Preliminary results suggest that those whose parents did not live together, and those from lower socioeconomic families, were at an increased risk of bearing children at or younger than age 20. We expect to find a significant, positive association between peers' and cohort members' early childbearing. Early childbearing may affect negatively long-term outcomes for young parents and their children, so it is important to understand better its determinants.

Criminal Career Research: A Sequence Analysis Based Approach

Presenter: Alessandra Grotta, Stockholm University, Sweden

Co-authors: Jenny Eklund, Ylva B Almquist, Stockholm University, Sweden

Criminal career research has extensively aimed at identifying typologies of offenders. Taxonomy theories have mostly been developed using group-based trajectories models. However, criminology research would benefit from methodologies that can preserve the continuum dimension of similarity among criminal careers, such as sequence analysis. The aim of this study is therefore to present an application of this method to a sample of real data.

Using Swedish National Crime Register for the Stockholm Birth Cohort of 1953, we defined 2,095 criminal sequences over the period 1966-1983. Possible states were: no crime, vandalism, stealing, fraud, narcotic, road, violent, and other crimes. We compared criminal trajectories using Chi-squared, Hamming and optimal matching of spells distance measures that reflect similarities of trajectories in terms of duration, timing and sequencing, respectively. In order to assess how each of these three distances works, we clustered the observations choosing the partitions that best reflect the distance matrices. Chi-square distance grouped one cluster of subjects with low criminal activity, mainly stealing. Four other groups included subjects with slightly higher criminal activity characterized by, respectively, narcotic, fraud, vandalism, and other crimes. The three remaining groups clustered subjects with high criminal activity, mainly violent, road, or narcotic crimes. Hamming distance identified two groups both with high-intensity criminal activity, respectively during the first and second half of the follow-up. A third group was less clearly characterized and involved all the low rate criminal careers. Finally, optimal matching of spells clustered subjects into five groups with increasing levels of sequences' turbulence and entropy. Sequence analysis can be a useful tool in criminal career research, allowing researchers to compare subjects in relation to the specific features of trajectories.