Research workshop
of the
Israel Science Foundation

21-24, January 2019

Feldman Hall, Bar Ilan University

Longitudinal research can be useful in a variety of fields to better grasp change, stability and time. The past few decades have seen a plethora of new designs, methods, and analysis techniques to address the growing interest in longitudinal research. The present workshop is geared to provide both advanced researchers and early stage researchers with new concepts, methodologies and practical tools to embark on longitudinal research and to take an advantage of available longitudinal studies already in place. The first two days of the workshop are devoted to quantitative longitudinal research and the latter two days are devoted to qualitative longitudinal research. Hence, attendees will benefit from a broad and diverse perspective on an emerging field of important practical implications for their research.

By the end of this workshop, participants will:

1. Become familiar with design issues concerning the conduct of longitudinal qualitative and quantitative research.
2. Become aware of potential pitfalls concerning the recruitment and retention of participants into longitudinal research.
3. Be able to distinguish between different methods for the analysis of longitudinal data
4. Identify and use concepts such as time, change and stability in longitudinal design
5. Become acquainted with techniques to address missing data in longitudinal research
6. Become aware of the potential impact of research on data collected over time

Recommended Reading: Longitudinal Quantitative Research:

Enders, C. K. (2010). *Applied missing data analysis*. Guilford Press

Fraley, R. C., & Hudson, N. W. (2014). Review of intensive longitudinal methods: An introduction to diary and experience sampling research.

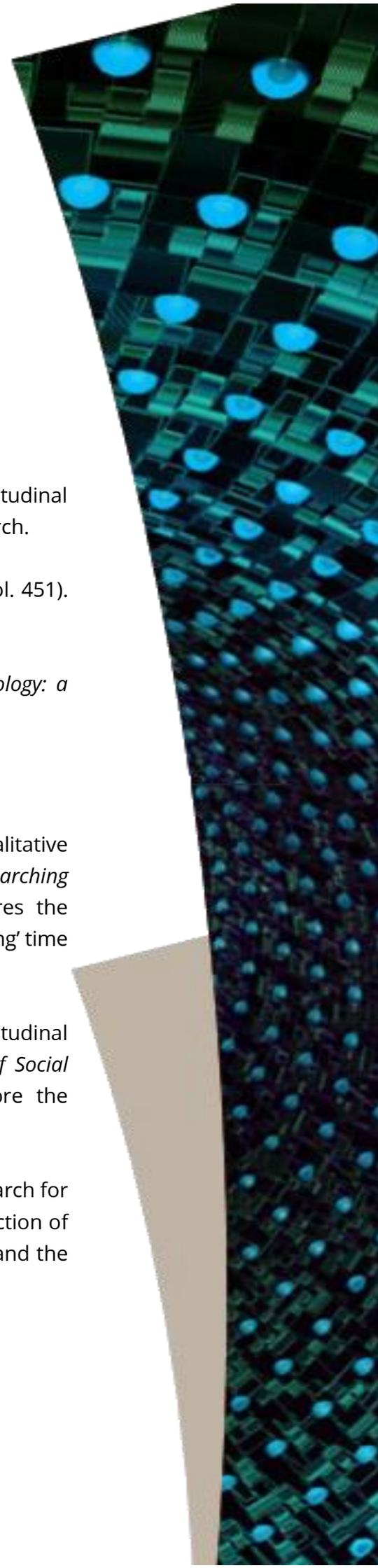Hedeker, D., & Gibbons, R. D. (2006). *Longitudinal data analysis* (Vol. 451). John Wiley & Sons.

Twisk, J. W. (2013). *Applied longitudinal data analysis for epidemiology: a practical guide*. Cambridge University Press.

Recommended Reading: Longitudinal Qualitative Research:

Neale, B. (2015) Time and the Lifecourse: Perspectives from Qualitative Longitudinal Research *in* Nancy Worth and Irene Hardill (eds.) *Researching the Life course*, Bristol, Policy Press. This book chapter explores the conceptual foundations for QL research and suggests ways of 'slicing' time as the basis for empirical enquiry

Thomson, R. Plumridge, L and Holland, J. (2003 (eds) Longitudinal Qualitative Research: Special issue of the *International Journal of Social Research Methodology* 6, 3. A collection of articles that explore the principles and practice of QL research.

Corden, A. and Millar, J. (2007) (eds.) Qualitative Longitudinal Research for Social Policy: Special issue of *Social Policy and Society*, 6, 4. A collection of articles on QL research, with a particular focus on policy settings and the analysis of QL data.
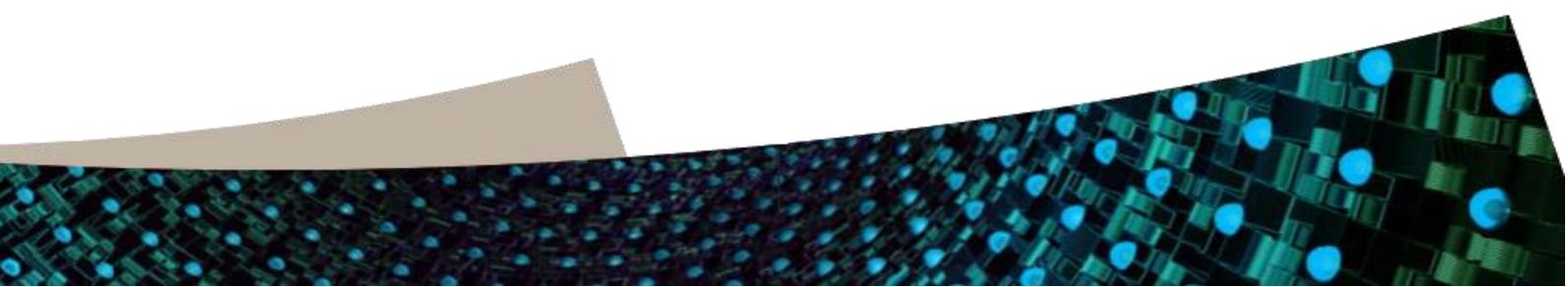
Day 1 - 21. 1. 2019

Longitudinal quantitative research

9:00 – 9:20	Registration
9:20 – 9:30	Welcome

9:30 – 11:00   **Design and Analysis of Longitudinal Studies- An introduction**

Jola Perek-Bialas, Ph.D.

This talk will give a broad introduction to longitudinal designs, the graphical presentation of longitudinal data and specific considerations when embarking on longitudinal research.

11:00 – 11:30	Coffee Break

11:30 – 13:00   **Lessons from the field: dos and don'ts in the development and design of longitudinal research**

Margie Lachman, Ph.D.

Based on her extensive involvement in the MIDUS study (Midlife in the United States): A national study of health and wellbeing, Prof. Lachman will discuss challenges and best practices for the conduct of longitudinal panel research.

13:00 – 14:00	Lunch Break

14:00 – 15:30   **Measuring Status vs. Measuring Changes - Using the example of self-rated health (SRH)**

Patrick Lazarevic

This presentation explores the similarities and differences in measuring a concept such as health as a status, i.e., how respondents evaluate themselves at a specific point in time, vs. the measurement of changes over time. Additionally, potential changes in what information is used in ratings and how the available information is weighted will be discussed. To this end, the general cognitive process of the survey response will be illustrated by empirical findings from European and Canadian health surveys.

15:30-16:00	Coffee Break

16:00 – 17:30   **How cognitive and sensory aging may affect measuring the same constructs over time**

Boaz Ben-David, Ph.D.

This talk will address the potential impact of repeated measures on the performance of interviewee. Specifically, we will explore how cognitive and sensory aging may affect performance as the interviewee ages. Ideas on how to control for these effects will also be discussed, as well practice effect on cognitive performance.

**The Louis & Gabi Weisfeld
School of Social Work**

Day 2 - 22. 1. 2019

Longitudinal quantitative research

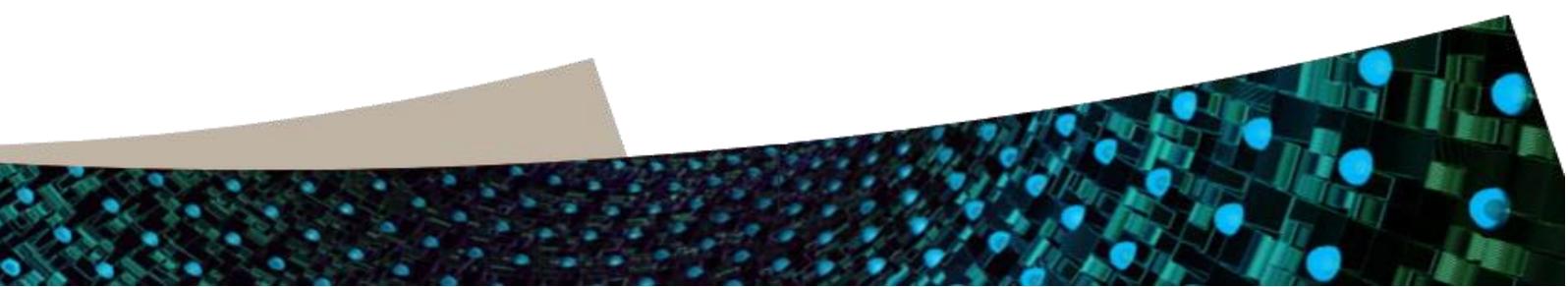|	
9:00 – 10:30	**Preventing attrition bias in longitudinal research** Sharon Shiovitz-Ezra, Ph.D. This session will be devoted to the prevention of attrition bias in longitudinal research. The talk will also address ways of recognizing attrition bias and intervene when bias is identified.
10:30 – 11:00	Coffee Break
11:00 – 12:30	**Multiple imputation with longitudinal data I** Craig Enders, Ph.D. Missing data methodology has improved dramatically in recent years, and popular computer programs now offer a variety of sophisticated options. Despite the widespread availability of theoretically justified methods, researchers in many disciplines still rely on subpar strategies that either eliminate incomplete cases or impute the missing scores with a single set of replacement values. This session provides us with a nontechnical overview of some key issues from the missing data literature and demonstrates several of the techniques that methodologists currently recommend.
12:30 – 13:30	Lunch Break
13:30 – 15:00	**Multiple imputation with longitudinal data II** Craig Enders, Ph.D. The rationale and procedural details for conducting multiple imputations with missing not at random data will be elaborated.
15:00 – 15:30	Coffee Break
15:30 – 17:00	**The difference between mixed model analysis and GEE analysis in analyzing longitudinal data** Twisk Jos, Ph.D. The analysis of data from longitudinal studies requires special techniques, which take into account the fact that the repeated measurements within one individual are correlated. This talk aims to provide researchers who wish to analyze longitudinal research with important decision making tools.
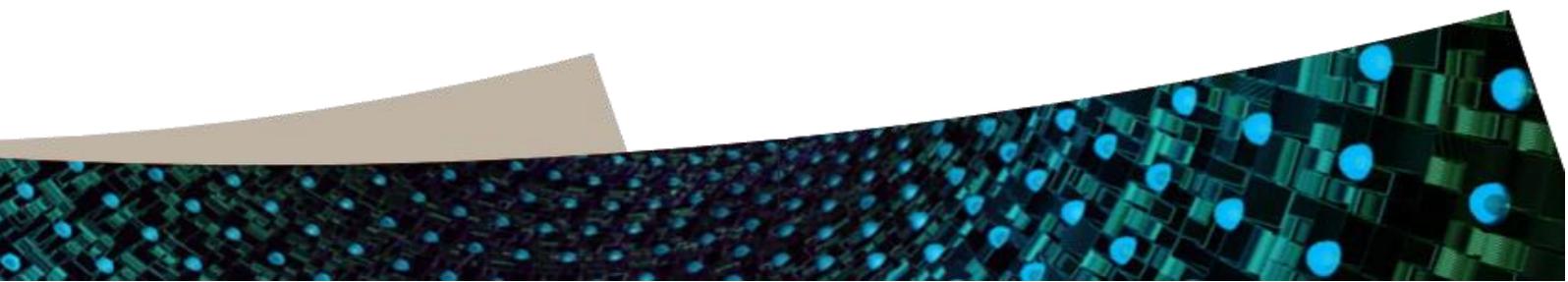
Day 3 - 23. 1. 2019

Researching Lives through Time: Qualitative Approaches

Bren Neale, Ph.D.

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9:00 – 10:30	**Researching Lives Dynamically through Time: Introduction** This session will give a broad introduction to Qualitative Longitudinal Research. We will trace the gradual development of a 'temporal' turn in contemporary social science and explore the synergies and distinctions between varied social scientific approaches that engage centrally with time, namely social anthropology, sociological community re-studies; and biographical and life course research. We will examine how these fields engage with time, considering, in particular the tempo and framing of these studies; the directional gaze of the researcher (prospective – retrospective); and the micro-macro dynamic focus of enquiry. The session will explore varied planes of time, and suggest new ways of drawing productive links between temporal theory and method.
10:30 – 11:00	Coffee Break
11:00 – 12:30	**Workshop One: Generating Temporal Insights** Participants will gain a greater appreciation of the conceptual building blocks for life course research (turning points, transitions, trajectories). They will try out varied ways to generate temporal data through one to one interviewing, before re-convening to share insights and observations.
12:30 – 13:30	Lunch Break
13:30 – 15:00	**Lecture Two: Crafting Temporal Field Enquiry** This session will explore different approaches to the design and conduct of dynamic research, including the complex mix of ethnographic, interview based and documentary methods used to generate temporal data. The idea of temporal research as a craft, as much as a robust social scientific mode of enquiry will be introduced, and the rich repertoire of field methods and techniques designed to 'capture' time in the field, and to engage with and maintain samples over time will be explored and illustrated. Achieving a balance between depth and breadth of data generation is a particular issue in temporal research, one that impacts on sampling strategies and the choice of field settings. Creative ways of sampling, for example, through cross generational designs, will be outlined.
15:00 – 15:30	Coffee Break
15:30 – 17:00	**Workshop 2: Temporal Research Design** Participants will work in small groups to design a study that engages with time, drawing on the principles of temporal logic, framing and sampling set out in the lecture.

Day 4 - 24. 1. 2019

Researching Lives through Time: Qualitative Approaches

Bren Neale, Ph.D.

9:00 – 10:30	**The Ethics of Temporal Research**

This session will begin with an overview of the key principles of qualitative research ethics and go on to consider how the need for ethical literacy is magnified and inflected through temporal research. Issues will include consent as an ongoing process, sustaining ethical relationships, including the balance between reciprocity and maintaining the boundaries of professional research relationships in the field; the nature and extent of participation in long term field research, and the resolution of ethical dilemmas, using both proactive and reactive ethical strategies.

10:30 – 11:00	Coffee Break
11:00 – 12:30	**Temporal ethics**

Students will work individually and in small groups to consider, tackle and resolve a number of ethical dilemmas that might arise in the field.

12:30 – 13:30	Lunch Break
13:30 – 15:00	**The Analytical Journey: Managing/Analyzing Temporal Data**

This lecture will consider the key principles of managing complex temporal data for long term use and re-use, an important issue in that temporal data are both complex and extensive, even where the number of cases in a sample is relatively small. The lecture will explore the process of analyzing such data, beginning with an overview of the principles of qualitative data analysis and considering the complexities of temporal analysis that involves working across three dimensions: case, theme and time.

15:00 – 15:30	Coffee Break
15:30 – 17:00	**The analytical journey**

Students will work individually and in small groups to conduct an initial analysis of data drawn from the Following Young Fathers study (www.followingfathers.leeds.ac.uk). They will work with selected material from interview transcripts, and analytical files such as Pen Portraits, time maps, and framework grids. Some advance preparation will be needed for this workshop; materials will be sent to students in advance of the course.
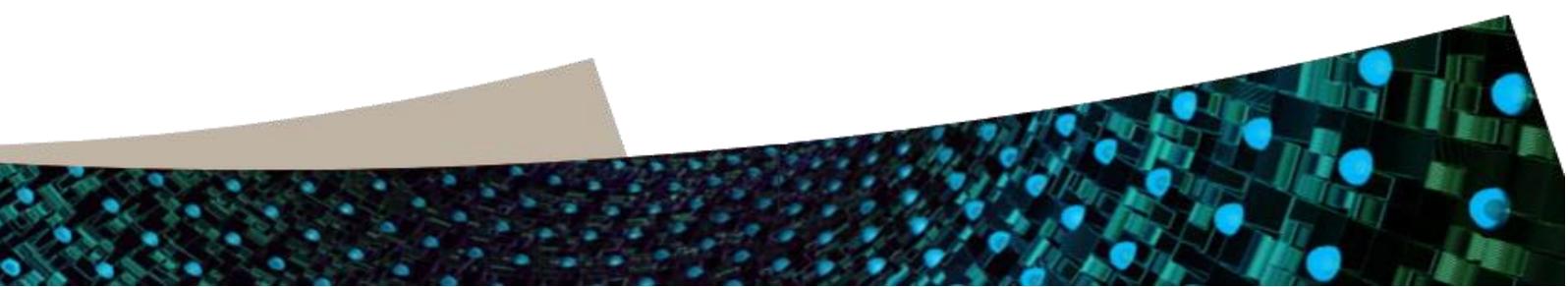
About the Speakers

Liat Ayalon, Ph.D.

Prof. Liat Ayalon is a clinical psychologist and a Professor in the School of Social Work at Bar Ilan University. Her current interests concern the integration of mental health in primary care, the intersection of formal and informal care for older adults and ageism-the negative construction of old age. Her research is currently funded by the National Insurance Institute of Israel, the Israel National Institute for Health Policy Research and the Israel Science Foundation. She is the chair of a COST Action on Ageism and the coordinator of an innovative training network on ageism.

Boaz Ben David, Ph.D.

Dr. Boaz Ben-David is a psychologist, Lecturer at IDC Herzlyia and an adjunct faculty member in the Department of Speech-Language Pathology and the School of Graduate Studies at the University of Toronto, and at the Toronto Rehabilitation Institute. His current interests concern the communication, cognitive and sensory integration in aging by investigating the premise that reductions in the quality of the sensory input will result in less efficient cognitive functioning, specifically when communicating in adverse environments. His research is funded by several grants and awards, such as the Marie Curie Career Integration AWARD from the European Commission and a grant from Bronfman Philanthropies for Collaborative Research Initiative Brandeis-Israel (co-PI).

Craig Enders, Ph.D.

Prof. Craig Enders is a educational psychologist and a Professor in the Department of Psychology at University of California, Los Angeles. His current interests concern developing and applying modern statistical methods for addressing missing data, principally maximum likelihood estimation, multiple imputation, and Bayesian estimation. His research is currently funded by a three-year grant from the Institute of Educational Sciences.

Twisk Jos, Ph.D.

Prof. Twisk Jos is a head of the expertise center for applied longitudinal data analysis and a Professor of Applied Biostatistics in the *Department of Epidemiology & Biostatistics at VU University Medical Center, Amsterdam.* His interests concern mainly longitudinal data analysis and multilevel analysis. For both topics he wrote a textbook, which were published by Cambridge University Press.

Margie Lachman, Ph.D.

Prof. Margie Lachman is a psychologist and a Minnie and Harold L. Fierman Professor of Psychology and Director of the Lifespan Developmental Psychology Lab at Brandeis University and the Brandeis University Lifespan Initiative on Healthy Aging. Her current interests concern lifespan development with a focus on midlife and later life, aimed at identifying psychosocial and behavioral factors that can protect against, minimize, or compensate for declines in cognition and health. Her research is funded by many grants and awards such as Achievement Award from the American Psychological Association and Bronfman Philanthropies Brandeis-Israel Collaborative Research Grant.

Patrick Lazarevic

Patrick Lazarevic studied sociology at the University of Duisburg-Essen, where he received his M.A. in 2014. During his academic career, he was always concerned with studies in the field of research methodology as well as with the influence of methodological artifacts and different approaches on the results of empirical research. In his Ph.D. at the TU Dortmund University, he applied these interests to the field of epidemiology and especially to the examination of self-rated health as an indicator of generic health. At the Vienna Institute of Demography, he is working in the ERC consolidator grant project 'Levels and Trends of Health Expectancy: Understanding its Measurement and Estimation Sensitivity' (LETHE) where he continues his research on health indicators, health perceptions, and their implications for (generic) health measurement and survey methodology.

Bren Neal, Ph.D.

Prof. Bren Neal is a fellow of the Academy of Social Sciences and a Emeritus Professor of Life course and Family Research in the School of Sociology and Social Policy at the University of Leeds, UK. Her current interests concern the dynamics of family life and inter-generational relationships and leading expert in Qualitative Longitudinal research methodology and provides training for new and established researchers, based primarily at the University of Leeds but also internationally. Prof. Bren Neal is also a founding member of the journal *Families, Relationships and Societies*, and chair of the journal's Editorial Management Board.

The Louis & Gabi Weisfeld
School of Social Work

Jolanta Perek-Bialas, Ph.D.

Prof. Perek-Bialas a graduate (master's degree 1996, PhD 2001) of Warsaw School of Economics, currently works at the Institute of Statistics and Demography there, and since 2001 also at the Institute of Sociology of the Jagiellonian University, where she teaches methodology of social research, statistical analysis of secondary data and sample selection. Coordinator of international projects on active ageing, activation of elderly people, reconciling work and care for the elderly (within the 5th, 6th and 7th EU Framework Projects and for the Volkswagen Foundation). At the Institute of Sociology. she tutors students from the Academic Club Research Section, with whom she has organised Data Analysis Workshops for over ten years. Collaborates with many institutions, including the Ministry of Labour and Social Policy, Ministry of Regional Development, Voivodeship Employment Agency in Krakow, Marshal's Office in Krakow, and Regional Centre for Social Policy. Also supports the work of the Centre for Evaluation and Analysis of Public Policies, e.g. in 2014 carrying out a project on quality of life among the elderly.

Sharon Shiovitz-Ezra, Ph.D.

Prof. Sharon Shiovitz-Ezra is a quantitative social researcher and an Associate Professor in the School of Social Work at the Hebrew University in Israel. Her current interests concern loneliness and social relationships of older adults. She is a senior researcher in the Israel Gerontological Data Center.