Universität Zürich UZH

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Celebrating 20 years of z-proso

Programme 6th z-proso International Research Network (zIReN) Meeting

5th – 7th September 2024

Department of Education, Psychology, Communication - University of Bari Aldo Moro, Bari, Italy

Aldo Cossu Room & Golden Hall, Palazzo Ateneo, Via Scipione Crisanzio, 1 - Bari

JACOBS CENTER

z-proso
The Zurich Project on the Social Development
from Childhood to Adulthood

Time Schedule – 6th zIReN Research Meeting

5th – 7th September 2024

Department of Education, Psychology, Communication - University of Bari Aldo Moro, Bari, Italy
Aldo Cossu Room & Golden Hall, Palazzo Ateneo, Via Scipione Crisanzio, 1 – Bari

Thursday, 5th September 2024		
Aldo Cossu Room, Via Scipione Crisanzio, 1 - Bari (for *Welcome Address & Introduction*)		
Golden Hall, Via Scipione Crisanzio, 1 - Bari (for *Research Sessions*)		
Time	**Presentation**	**Speaker**
10:00 – 10:30	Arrival & Coffee	
10:30 – 11:00	*Welcome Address and Introduction*	*Pasquale Musso* *z-proso PIs*
11:00 – 12:30	**Session 1 (90'): VICTIMIZATION (Chair: Denis Ribeaud)**	
	1. *Explaining the Vicious Cycle of Victimization: The Role of Risky Lifestyles and Short-Term Mindsets*	*Sebastian Kübel*
	2. *Peer Victimization in Adolescence Alters Gene Expression and Cytokine Profiles*	*Jens Heumann*
	3. *The Association of Victimization with Vengeance Cognitions and Fantasies in Early Adulthood: A Longitudinal Study*	*Andrea Tam*
12:30 – 14:00	Lunch at *Le Muse & il Mare*	
14:00 – 15:30	**Session 2 (90'): LIFE TRANSITIONS AND LONGITUDINAL INSIGHTS (Chair: Fabiola Silletti)**	
	4. *Major Life Events from Adolescence to Young Adulthood: A Longitudinal Natural Language Processing Investigation*	*Christina Haag*
	5. *Positive Young Adult Transitions and Well-Being in z-proso*	*Lilly Shanahan (represented by Laura Bechtiger)*
	6. *First Evidence from z-proso NextGen: Turning z-proso into a Multi-Generation Cohort Study*	*Laura Bechtiger & Lea Buzzi*
15:30 – 16:00	Coffee Break	
16:00 – 17:30	**Session 3 (90'): SUBSTANCE USE, COGNITION AND PSYCHOPATHOLOGY (Chair: Anna Jacobsen)**	
	7. *Temporal Patterns of Substance Use and Their Effects on Cognition in Young Adults: An Inverse Probability Weighting Approach*	*Lukas Eggenberger*
	8. *A Longitudinal Study of Adolescent Cannabis Use on Cognitive Performance in Young Adulthood: Associations and Trajectories*	*Clarissa Janousch*
	9. *Does Cannabis Use in Young Adulthood Predict Changes in Psychological and Functional Outcomes? Insights from Self-report and Hair Data*	*Lydia Johnson-Ferguson*
19:30 – 22:00	Informal Dinner at La Cecchina	

Time	Presentation	Speaker

Friday, 6ᵗʰ September 2024

Department of Education, Psychology, Communication - University of Bari Aldo Moro, Bari, Italy
Golden Hall, Via Scipione Crisanzio, 1 - Bari

Time	Presentation	Speaker
8:45 – 9:00	Arrival & Coffee	
9:00 –10:30	**Session 4 (90'): INTERDISCIPLINARY (Chair: Denis Ribeaud)**	
	10. From Analogue Childhood to Digital Adulthood: Making Sense of 20 years of z-proso Research	*Manuel Eisner*
	11. Exploring the Potential of Analyzing Ethnic Differences in the Life Course of Young People: Insights from z-proso Data	*Pasquale Musso & Fabiola Silletti*
	12. What Can We Expect and What Not from Hair Analysis in the Context of Longitudinal Cohort Studies?	*Boris Quednow*
10:30 – 11:30	**Session 5 (60'): SCHOOL (Chair: Federica de Masi)**	
	13. Cross-cultural Differences in School Experience and Adolescent Risk Behaviors Observed in z-proso and its Sisters in Brazil (sp-proso) and Uruguay (m-proso)	*Cézar Luquine*
	14. Teacher-Student Relationship as Longitudinal Predictor of Students' Academic Achievement in Primary Education	*Vicente J. Llorent (online presentation)*
11:30 – 12:00	Short Break	
12:00 – 13:00	**Session 6 (60'): EXTREMISM (Chair: Emma Belton)**	
	15. Shattered Safety: Developmental Risk Factors for Conspiracy Mentality and Violent Extremism	*Hanne Duindam*
	16. Examining the Link between Violent Extremist Attitudes and Support for Violence Against Women	*Bettina Rottweiler*
13:00 – 14:30	Lunch at *L'Argenteria*	
14:30 – 16:00	**Session 7 (90'): DELINQUENCY AND CRIME (Chair: Manuel Eisner)**	
	17. The Feeling of Being Excluded from Society: Testing its Link to Delinquent Behavior through Short-Term Mindsets	*Johanna Maerker*
	18. Sanctions and Proceedings Against Juvenile Offenders: Do Stronger Offenses Result in Harsher Penalties?	*Niccolò Armandola & Gian Ege*
	19. CrimeTime: Specifying Temporal Processes and Effects in Criminological Theory and Research	*Amy Nivette (online presentation)*
16:00 – 16:30	Coffee Break	
16:30 – 17:30	Early Career Researchers' Meeting (Chair: Lea Buzzi)	
18:30 – 20:00	**SOCIAL EVENT: Bari Vecchia**'s guided tour & homemade **orecchiette demonstration**	
20:00 – 22:00	Festive Dinner at Polvere di Stelle Restaurant - Grande Albergo delle Nazioni	

Saturday, 7th September 2024 **SOCIAL EVENT** **Excursion to _Matera_ followed by a lunch**	
Time	**Excursion to Matera**
09:00	Meeting at Bari University: 09:00 Departure with charter bus from Bari University: 09:15 Arrival in Matera: 10:15
10:15 – 12:15	**Guided tour, Matera "the City of Stones"**
12:30 – 14:30	Lunch at Oi Mari Restaurant in Matera
14:30 – 15:30	Departure with charter bus: 14:30 Arrival in Bari: 15:30

Session 1: VICTIMIZATION

Explaining the Vicious Cycle of Victimization: The Role of Risky Lifestyles and Short-Term Mindsets

Sebastian L. Kübel[1], Willem E. Frankenhuis[2], Denis Ribeaud[3], Manuel P. Eisner[3,4], Jean-Louis van Gelder[1]
[1]Max Planck Institute for Crime, Security, and Law, Germany
[2]University of Amsterdam, The Netherlands
[3]University of Zurich, Switzerland
[4]University of Cambridge, United Kingdom

Violent victimization makes revictimization more likely. This phenomenon results from both preexisting factors as well as consequences of victimization. Individual-level explanations propose that short-term mindsets, i.e. focusing on present versus future outcomes, predispose people to select into risky lifestyles. In turn, risky lifestyles, such as being around delinquent peers and spending time in unstructured unsupervised socializing, increase the risk of (re)victimization. While prior studies support these effects, recent research suggests that the effects may in fact be reciprocal, creating a vicious cycle of victimization. For example, short-term mindsets are themselves increased after victimization and with more exposure to risky peer contexts. We test the potential reciprocal relationships between victimization, short-term mindsets and risky peer contexts over time. To this end, we use random-intercept cross-lagged panel models (RI-CLPMs) and three waves of data from the z-proso cohort. We will present findings on these relationships between victimization, risky peer contexts and short-term mindsets that may create a self-reinforcing dynamic, a vicious cycle of victimization risk. We will also discuss ways to break this vicious cycle.

Current status of the paper/project: ongoing (first results can be presented)

Peer Victimization in Adolescence Alters Gene Expression and Cytokine Profiles

Jens Heumann[1], Edna Grünblatt[1], Mike Shanahan[1]
[1]University of Zurich, Switzerland

Objectives: Stress due to social adversity down-regulates antiviral genes and up-regulates inflammatory genes, leading to changes in cytokine levels. We investigate whether and how peer victimization throughout adolescence alters gene expression and cytokine levels, and transcriptional dynamics in young adulthood.

Methods: Drawing on data from the Zurich Brain and Immune Gene Study (z-GIG), we assessed peer victimization between ages 11 and 20 and measured mRNA abundance levels and plasma cytokine profiles at age 21 (n=145; 74 men, 71 women). Using a quasi-experimental design with genetically informed inverse-probability weighting, we adjusted for baseline confounders in individual and environmental characteristics, thereby strengthening causal inferences about peer victimization and its consequences for health.

Results: Victims showed altered leukocyte composition, including reduced M1- and elevated M2-like monocytes, compared to their non-victimized counterparts. They also exhibited higher proportions of activated dendritic cells and regulatory T cells, along with changes in the ratios of various immune cells. Genes associated with immunomodulatory Reactome pathways such as Interferon signaling, Interferon alpha/beta signaling, Interferon gamma signaling, Cytokine signaling, Immune system, and Signaling by interleukins were overrepresented. Victims showed elevated pro-inflammatory cytokines such as IL-16, CCL11, and CCL5, compared with controls. Transcription factors STAT2 and IRF1 were identified as key drivers, as they had numerous matches in overrepresented Reactome pathways.

Conclusions: Our findings demonstrate that peer victimization in adolescence can lead to changes in gene regulatory activity and cytokine levels, altering the immune profile in young adulthood. This highlights the need for health policies that prevent, build resilience to, and mitigate the long-term effects of peer victimization.

Current status of the paper/project: submitted for publication/under review

The Association of Victimization with Vengeance Cognitions and Fantasies in Early Adulthood: A Longitudinal Study

Andrea Tam[1], Manuel Eisner[1,2], Denis Ribeaud[2]
[1]University of Cambridge, United Kingdom
[2] University of Zurich, Switzerland

The present longitudinal study investigated the cognitive repercussions individuals experience following instances of victimisation, focusing specifically on the development of vengeance cognitions and fantasies during early adulthood. Victimisation is known to yield substantial socio-emotional consequences, including social withdrawal, emotional distress, and an increased susceptibility to anxiety disorders. However, the cognitive processes following victimisation, particularly concerning thoughts of vengeance and retaliation, remain inadequately explored. Thus, the current study aimed to explore the impact of victimisation on the emergence of vengeance cognitions and fantasies. Data from the z-proso, collected at ages 20 and 24, were used to examine various forms of victimisation, including bullying victimisation, criminal violent victimisation, and dating violence victimisation, in relation to vengeance cognitions and fantasies. Structural equation modelling was employed to explore the relationships between victimisation and vengeance cognitions and fantasies, while controlling for developmental antecedents, prior victimisation, and prior vengeance cognitions and fantasies. Higher vengeance cognitions and fantasies at age 24 were predicted by greater bullying and criminal violent victimisation experienced in the previous 12 months. Gender played a significant moderating role, indicating that the association of bullying and criminal violent victimisation with vengeance varies by gender, with the relationship appearing weaker among women. Conversely, higher dating violence victimisation did not predict higher vengeance cognitions and fantasies. Findings from the current research deepen our understanding of the cognitive dimensions of revenge in the context of victimisation, illuminating potential psychological and behavioural outcomes. The results highlight the importance of considering gender differences and the specific impacts of various types of victimisation, thereby informing targeted interventions and support strategies.

Current status of the paper/project: ongoing (first results can be presented)

Session 2: LIFE TRANSITIONS AND LONGITUDINAL INSIGHTS

Major Life Events from Adolescence to Young Adulthood: A Longitudinal Natural Language Processing Investigation

Christina Haag[1,], David Bürgin[1,*], Denis Ribeaud[1,2], Manuel Eisner[1,,2], Viktor von Wyl[1,*], Lilly Shanahan[1,*]*
[1]University of Zurich, Switzerland
[2]University of Cambridge, United Kingdom
[*]equal contribution

Recent studies show an increase in mental health problems among young people oftentimes labelled 'youth mental health crisis'. Studies are needed to identify underlying causes of these trends, with current research on risk and protective factors being in need of exploring young people's first-hand experiences to gain deeper insights and new intervention strategies. This study aims to investigate major life events identified as highly significant by young people, the emotional valence of these events, and how their key themes change from adolescence to young adulthood.

Z-proso participants responded to a qualitative question asking about their most significant life event across four measurement occasions between the ages 13 to 24. We analysed themes in these narrative descriptions using dynamic topic modelling with the Python library 'BERTopic', combining conventional techniques with large language models (LLMs) to track topic evolution over time. We also examined the emotional valence of these events and how they related to the overarching topics of the narratives.

Young people often described key life events as positive, usually relating to personal relationships, academic success, securing an apprenticeship or personal development. Conversely, negative experiences were often related to the loss of a loved one or the experience of mental distress or illness.

This study contributes to a deeper understanding of diverse themes of self-reported positive and negative life-events along development from adolescence into young adulthood and may serve as a precedent for future population research using large-scale text data through natural language processing techniques.

Current status of the paper/project: ongoing (first results can be presented)

Positive Young Adult Transitions and Well-Being in z-proso

Lilly Shanahan[1], Annekatrin Steinhoff[2], Laura Bechtiger[1], Boris Quednow[1], Denis Ribeaud[1], Manuel Eisner[1,3]

[1]University of Zurich, Switzerland
[2]Bern University, Switzerland
[3]University of Cambridge, United Kingdom

Young adulthood is characterized by important transitions including changes in living arrangements, romantic relationships and family formation, employment, and education. Delays in reaching certain milestones can increase the risk of mental health and substance use problems. In turn, successful transitions may serve be associated with improved well-being, especially, as the number of achieved positive milestones accumulates. We examine how positive young adult transitions are linked with young adults' sense of self in society, their externalizing, delinquent, and substance use behaviors, and their internalizing symptoms. We account for pre-transition patterns of these behaviors when possible. We use data from z-proso. At ages 20 and 24, young adults were characterized in terms of their transitions and milestones. We use longitudinal statistical modeling to investigate how positive young adult transitions are associated with young adult well-being. A particular focus is on the accumulation of positive transitions.

Current status of the paper/project: ongoing (first results can be presented)

First Evidence from z-proso NextGen: Turning z-proso into a Multi-Generation Cohort Study

Laura Bechtiger[1], Lea Buzzi[1], Manuel Eisner[1,2], Denis Ribeaud[1], Lilly Shanahan [1]

[1]University of Zurich, Switzerland
[2]University of Cambridge, United Kingdom

Z-proso NextGen is an intergenerational add-on module to the z-proso study that aims to assess those z-proso participants who are parents about their well-being and behavior in this new role, as well as about the early social behavior of their children. This makes it not only possible to follow individual development across time, but also to understand patterns of intergenerational transmission in relation to such earlier individual development. z-proso NextGen will eventually allow the rigorous examinations of new research questions such as: How do childhood and adolescent experiences of z-proso participants predict their own parenting behaviors in adulthood? Can we observe patterns of intergenerational continuity and discontinuity in key constructs, including antisocial and prosocial behavior, psychopathology, and aspects of social relationships?

In z-proso NextGen, those z-proso participants who are parents can take part in four online surveys after the birth of their child, and when children are 1.5, 4, and 7 years old. As of June 2024, 51 original cohort members are participating in z-proso NextGen with 63 NextGen children. In this presentation, we will briefly summarize the z-proso NextGen study design, survey instruments, and give an update on the field work progress. We will also present preliminary evidence from the first data merge of z-proso NextGen with the z-proso cohort, for example by characterizing those who are parents by age 26 compared to those who are not yet parents at that age on earlier social and psychological experiences.

Current status of the paper/project: ongoing (first results can be presented)

Session 3: SUBSTANCE USE, COGNITION AND PSYCHOPATHOLOGY

Temporal Patterns of Substance Use and Their Effects on Cognition in Young Adults: An Inverse Probability Weighting Approach

Lukas Eggenberger[1], Clarissa Janousch[1], Lydia Johnson-Ferguson[1], Markus R. Baumgartner[1], Tina M. Binz[1], Denis Ribeaud[1], Manuel Eisner[1,2], Lilly Shanahan[1], Boris B. Quednow[1]
[1]University of Zurich, Switzerland
[2]University of Cambridge, United Kingdom

Substance use has been consistently linked to cognitive impairments. In young adults at age 24 from the z-proso cohort, we previously found that higher hair concentrations of cocaine were associated with worse attention and declarative memory performance, higher hair concentrations of cannabis and codeine were associated with worse attention, and higher hair concentrations of ketamine were associated with worse declarative memory. However, the cross-sectional nature of these findings limits our understanding of temporal aspects and potential causal relationships.

In the present study, we will use hair data from wave 8 (age 20) and wave 9 (age 24) to categorize participants into different substance use profiles. Inverse probability weighting (IPW) will be applied to adjust the substance use profiles for baseline sociodemographic characteristics and potential confounders. Generalized linear regression models will then be used to estimate the causal effects of substance use profiles on cognitive functions.

We expected to find the associations from the cross-sectional analyses to be primarily driven by users with high chronicity over time and/or high intensity at age 24 when both measurement timepoints are considered.

By integrating advanced statistical techniques and a robust quasi-experimental research design, this study aims to disentangle the cognitive consequences of substance use during the critical developmental period of young adulthood, informing public health strategies and educational policies.

Current status of the paper/project: planned

A Longitudinal Study of Adolescent Cannabis Use on Cognitive Performance in Young Adulthood: Associations and Trajectories

Clarissa Janousch[1], Urs Grob[1], Lukas Eggenberger[1], Denis Ribeaud[1], Manuel Eisner[1,2], Lilly Shanahan[1], Boris B. Quednow [1]
[1]University of Zurich, Switzerland
[2]University of Cambridge, United Kingdom

Cannabis use in adolescence and young adulthood has been linked to lower cognitive function in a number of studies, although results are not always consistent. Mainly, the long-term impact and the severity of cognitive impairments associated with high and early cannabis use in community samples are not fully clarified. Therefore, the current study aims to investigate the relationship between self-reported cannabis use between ages 11 and 24 and cognitive functions at age 24.

The study included 1,482 participants from z-proso. Cannabis use was assessed six times (at ages 11, 13, 15, 17, 20, and 24), using a scale with six categories ranging from never to (almost) daily use. Cognitive performance was assessed at age 24 using the Cambridge Neuropsychological Test Automated Battery (CANTAB), which measured sustained attention, working memory, and declarative memory. Single regressions were conducted without and with covariates (sex, socio-economic background, migration status, education, cocaine use, internalizing symptoms), followed by Helmert contrasts. Additionally, latent class growth analysis (LCGA) and multinomial regressions were conducted to identify and analyze subgroups of cannabis users.

Regression analyses revealed few significant associations between cannabis use and cognitive performance. However, Helmert contrasts across all time points indicated that being in the (almost) daily user group was associated with lower cognitive functions compared to all other consumption groups. Latent class growth analyses (LCGAs) identified four distinct longitudinal classes of cannabis users: non-users, low-

increasing users, moderate-increasing users, and high-stable users. These classes did not show significant differences in their cognitive functions at age 24.

The results suggest that associations between cannabis use and cognitive functions in the community are nuanced and that highly frequent adolescent users may be at risk for worse cognitive functions in young adulthood.

Current status of the paper/project: ongoing (first results can be presented)

Does Cannabis Use in Young Adulthood Predict Changes in Psychological and Functional Outcomes? Insights from Self-report and Hair Data

Lydia Johnson-Ferguson[1], Laura Bechtiger[1], Michelle Loher[1], Clarissa Janousch[1], Markus Baumgartner[1], Tina M. Binz[1], Denis Ribeaud[1], Manuel Eisner[1,2], Boris B. Quednow[1,], Lilly Shanahan[1,*]*

[1] University of Zurich, Switzerland
[2] University of Cambridge, United Kingdom
equal contribution

Longitudinal evidence of how cannabis use is associated with psychopathological and functional outcomes within young adulthood has not caught up with the current momentum of cannabis legalisation in many countries, where cannabis use is allowed from age 18 or 21 years. The current study addresses this gap by examining how cannabis use at age 20 predicts changes in general functioning and psychopathology symptoms between ages 20 to 24 years. We assessed robustness of associations by using different methods of measuring cannabis exposure, including binary and continuous measures of both self-reported use and delta-9-tetrahydrocannabinol (THC) concentrations detected in hair, and composite scores derived from self-report and hair data.

We used data from participants who had participated at wave 8 (age 20) and 9 (age 24) and had given hair data at wave 8 of data collection (N=863). At ages 20 and 24, participants reported on their psychopathology (psychosis symptoms, problematic substance use, internalising symptoms, aggression) and functioning (general wellbeing, delinquency, employment). Liquid chromatography-tandem mass spectrometry (LC-MS/MS) quantified concentrations of THC and the THC-degradation product cannabinol (CBN) in participant's hair. Multiple regression models and logit regression models tested associations between different cannabis exposure variables at age 20 and psychopathological and functional outcomes at age 24, while well-controlling for biological sex and socio-demographic characteristics (migration background, SES) and the outcome measured at age 20.

Both self-reported frequency of cannabis use and THC concentrations in hair at age 20 robustly predicted higher psychosis and internalising symptoms, higher aggression, lower general well-being, and more problematic substance use at age 24. Associations between cannabis exposure and delinquency were not significant. Composite scores derived from self-reports and hair data were not more informative than single measures.

In young adulthood, cannabis use frequency in z-proso participants robustly predicted adverse changes in psychopathological outcomes from ages 20 to 24. For these predictions, hair data was not superior to the less expensive and less invasive self-reports for measuring cannabis exposure.

Current status of the paper/project: ongoing (first results can be presented)

Session 4: INTERDISCIPLINARY AND CULTURAL PERSPECTIVES

From Analogue Childhood to Digital Adulthood: Making Sense of 20 Years of z-proso Research
Manuel Eisner [1,2]
[1] University of Cambridge, United Kingdom
[2] University of Zurich, Switzerland

Over the past two decades, the Zurich Project on Social Development from Childhood to Adulthood has led to more than 100 academic publications on a miscellany of topics related to child, adolescent, and adult development. They hone in on a mixture of predictors and outcomes; examine different stages of the life course; pursue a hodgepodge of epidemiological, explanatory or psychometric goals, and use a wide array of methodologies. Each study makes a contribution to knowledge. But is there anything that can be learned beyond the individual contributions? Can z-proso findings reveal the human beings behind the numbers and coefficients? Do they help us understand what it means to grow up in the early 21st century in an affluent society? And do they uncover new generalisable knowledge that may contribute to wider theories of human development from childhood to adulthood? In this contribution I will review key z-proso studies and make an attempt to integrate the current assemblage of findings.

Current status of the paper/project: ongoing (first results can be presented)

Exploring the Potential of Analyzing Ethnic Differences in the Life Course of Young People: Insights from z-proso Data
Pasquale Musso[1], Fabiola Silletti[1]
[1]University of Bari Aldo Moro, Italy

This study investigates the potential of analyzing ethnic differences in the life course of young people, leveraging data from the Zurich Project on the Social Development from Childhood to Adulthood (z-proso). Utilizing a longitudinal approach, the research examines the developmental trajectories of diverse ethnic groups, focusing on key life stages including childhood, adolescence, and early adulthood. The study employs robust statistical techniques to identify patterns and disparities in various life outcomes such as educational attainment, employment, health, and social integration. By integrating demographic, socio-economic, and psychological variables, the analysis provides comprehensive insights into how ethnicity influences life course development. The findings reveal significant ethnic differences in life trajectories, underscoring the importance of tailored policies and interventions. This research contributes to the broader understanding of social inequality and diversity, offering a nuanced perspective on the role of ethnicity in shaping the life experiences of young people.

Current status of the paper/project: ongoing (first results can be presented)

What Can We Expect and What Not from Hair Analysis in the Context of Longitudinal Cohort Studies?
Boris B. Quednow
University of Zurich, Switzerland

Like all methods, toxicological hair analyses have their possibilities and limitations in application. These possibilities and limitations are substance-specific, so that it is necessary to consider individually for each substance how its hair concentration data can be interpreted. The presentation will therefore provide a kind of handbook on how to (and how not to) apply and interpret the hair data on illicit substances and steroid hormones collected in z-proso waves 8 and 9. A special focus will be placed on tetrahydrocannabinol, cocaine, amphetamines, opiates and the hormones cortisol and testosterone.

Current status of the paper/project: ongoing (first results can be presented)

Cross-cultural Differences in School Experience and Adolescent Risk Behaviors Observed in z-proso and its Sisters in Brazil (sp-proso) and Uruguay (m-proso)

Cézar D. Luquine Jr.[1], Denis Ribeaud[2], Manuel P. Eisner[2,3], Lilly Shanahan[2], Nicholas Trajtenberg[3], Maria Fernanda T. Peres[1]
[1]University of São Paulo, Brazil
[2]University of Zurich, Switzerland
[3]University of Cambridge, United Kingdom

Given the intricate nature of factors influencing the occurrence of risk behaviors, the school environment emerges as one critical arena for examining these dynamics, particularly during adolescence. In this research, we aim to investigate the association of school experiences with risk behaviors in the Wave 6 of z-proso and the cross-sectional studies m-proso and sp-proso, respectively from Montevideo, Uruguay, and São Paulo, Brazil. Both derive from z-proso's initial design and were planned to allow for comparison between participant samples in the same age range (14-15 years old). The three cities comprise a total number of 6,331 adolescents (48.9% female). The two main research questions are: (1) what are the main differences between adolescents from three culturally diverse cities in Brazil, Switzerland and Uruguay, particularly regarding the experience at school? and (2) are negative experiences associated with the higher levels of risk behavior among them? To address these questions, we will conduct a two-step investigation. First, we will utilize structural equation modelling to determine the measurement invariance of a scale measuring school experiences across the studies. Second, we will describe and examine the association between the school experience and the occurrence of selected risk behaviors: drinking, smoking, cannabis use, bullying perpetration, and delinquency. We will incorporate relevant covariates such as gender and proxies of socioeconomic status into our analysis to account for potential confounding factors. Ultimately, we expect this research contributes to our understanding of the complex interplay between education, social interactions, cultural differences, and health and developmental outcomes in adolescents.

Current status of the paper/project: ongoing (first results can be presented)

Teacher-student Relationship as Longitudinal Predictor of Students' Academic Achievement in Primary Education

Vicente Llorent[1], Mariano Núñez-Flores[1], Ingrid Obsuth[2], Izabela Zych[1], Denis Ribeaud[3], Manuel Eisner[4]
[1]University of Cordoba, Spain
[2]University of Edinburgh, Scotland
[3]University of Zurich, Switzerland
[4]University of Cambridge, United Kingdom

High academic achievement in compulsory education fosters a healthy and successful adulthood. Previous research has shown that high students' academic achievement in compulsory education can be predicted by a positive teacher-student relationship and a positive students' bonding with the school, both of which are related. Few studies have longitudinally examined these associations in primary school, particularly regarding students' school bonding as a potential mediating factor. This study aimed to explore a model focused on the prospective impact of the teacher-student relationship (from both teachers' and students' perspectives) on students' academic achievement in primary school mediated by students' school bonding. Data were drawn from the z-proso project - a longitudinal data set. The analytical sample consisted of 1,253 children (wave 2.2/Grade 2: 49.30% female; age: M = 8.65, SD = 0.37, range 7.33-10.06), of whom 916 children were followed up four years later (wave 4.3/Grade 6; age: M = 12.64, SD = 0.37, range 11.31-14.01). At ages 8 and 9, teachers reported on the teacher-student relationship, while students reported on it at age 9. At age 11, students reported on their school bonding. Students' academic achievement was reported by teachers at ages 8, 9, 10, 11, and 12. Control variables were sex, parental migration back-

ground, and parental formal education level. Considering control variables, a positive teacher-student relationship (reported by teachers and students) was directly and longitudinally associated with high students' academic achievement. A positive teacher-student relationship (reported by teachers and students) was directly and longitudinally associated with positive students' school bonding. Students' school bonding was not significantly associated with their academic achievement. Therefore, primary education teachers play a crucial role in their students' academic achievement.

Current status of the paper/project: submitted for publication/under review

Session 6: EXTREMISM

Shattered Safety: Developmental Risk Factors for Conspiracy Mentality and Violent Extremism
Hanne Duindam[1,2], Lucia Pena Hernandez[3], Manuel Eisner[4]
[1] Utrecht University, The Netherlands
[2]University of Zurich, Switzerland
[3]Aachen University, Germany
[4]University of Cambridge, United Kingdom

Conspiracy belief has been coined a threat to security in democracies (AIVD, 2023). While most believers are not prone to violence, instances of conspiracy-related violence have been widely discussed (Moskalenko & McCauley, 2021). Little is still known about the developmental factors underlying conspiracy belief and violent extremism (Hornsey et al., 2022). This is surprising since childhood threats and uncertainties can make the world seem unsafe and others untrustworthy, leading one to seek control in adulthood through conspiracy theories' simplistic answers (Green & Douglas, 2018). Similarly, violent extremism has been linked to higher rates of childhood adversity and distress (Simi et al., 2016). Therefore, the purpose of the current study is to examine how early experiences of childhood insecurity relate to conspiracy mentality and violent extremism in adulthood. First, latent growth curve analyses will identify developmental trajectories of a 'shattered' sense of safety, reflected by experiences of bullying victimization, anxiety, and distrust overtime. Second, the impact of these developmental trajectories on conspiracy mentality and violent extremism in adulthood will be examined. Ultimately, these developmental insights could guide more effective prevention strategies.

Current status of the paper/project: ongoing (first results can be presented)

Examining the Link between Violent Extremist Attitudes and Support for Violence Against Women
Bettina Rottweiler[1], Amy Nivette[2], Dennis Ribeaud[3], Manuel Eisner[3,4]
[1]University College London, United Kingdom
[2]Utrecht University, The Netherlands
[3]University of Zurich, Switzerland
[4]University of Cambridge, United Kingdom

Using a longitudinal sample of adolescents and young adults in Switzerland, the present analysis aims to address the lack of empirical research on the relationship between violence against women (VAW) and violent extremism. The study employs parallel latent growth ccurve modeling to examine patterns of change in support for violent extremism and support for violence against women. We examine how individual risk factors such as violence legitimising norms of masculinity impact upon violence against women and violent extremist attitudes. These findings may have important practical implications as we provide evidence which articulates common underlying risk factors for violent extremism and VAW. Establishing the relevance of overlapping (co-occurring) risk factors for violent extremism and VAW may provide evidence for more targeted prevention and intervention programs. We relate our findings to the risk assessment and management of both gender-based and violent extremist offenders.

Current status of the paper/project: ongoing (first results can be presented)

The Feeling of Being Excluded from Society: Testing its Link to Delinquent Behavior through Short-Term Mindsets

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Consistent with criminological control theories, empirical evidence suggests that social exclusion increases the likelihood of antisocial behavior. However, this response seems unreasonable as it reduces the individual's chances of social reinclusion and may even exacerbate further exclusion. We propose that this paradox might be resolved through "short-term mindsets" - a tendency to focus on present versus future outcomes - adopted as an adaptive response to the uncertain future prospects associated with being socially excluded. This study investigated how the feeling of being excluded from society is linked to later delinquent behavior and whether short-term mindsets explain this relationship. Using data from waves 4 through 6 from the Zurich Project on the Social Development from Childhood to Adulthood (z-proso), we conducted a path analysis to examine whether three indicators of short-term mindsets - impulsivity, sensation-seeking, and (low) future orientation - mediate the effect of perceived social exclusion on later delinquent behavior. Perceived social exclusion was associated with higher impulsivity and lower future orientation, and later delinquent behavior was predicted by sensation-seeking and low future orientation. However, contrary to our predictions, perceived social exclusion did not directly predict later delinquent behavior, nor was this relationship mediated by short-term mindsets. Possible explanations for these findings include a poor model fit, as well as design and sample characteristics. We discuss implications and directions for future research. To this end, we launched the z-proso NextGen study at the beginning of 2024, where those z-proso participants who are parents can participate in four online surveys after the birth of their child, and when children are 1.5, 4, and 7 years old. The survey questionnaires are closely aligned with the original z-proso questionnaires where possible to allow for intergenerational comparisons. z-proso participants also have the chance to sign up their partner or main co-parent for participation in z-proso NextGen. In this presentation, we will give an overview over the z-proso NextGen study design, survey instruments, and an update on the field work progress.

Current status of the paper/project: ongoing (first results can be presented)

Sanctions and Proceedings Against Juvenile Offenders: Do Stronger Offenses Result in Harsher Penalties?

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Swiss juvenile criminal law, established in 2007, differentiates between penalties and protective measures for young offenders. A significant federal reform in 2011 further refined the procedural laws for juvenile offenses, granting authorities more flexibility in applying sanctions compared to adult criminal law. Previous studies have highlighted how Swiss authorities utilize this flexibility, identifying personal performance (community service) and caution as the most frequently applied sanctions across Switzerland from 2007 to 2019. However, the specific offenses leading to these sanctions and their combinations, as well as the circumstances of the legal proceedings, remain underexplored.

This study aims to fill this research gap by analyzing data from the seventh zproso wave, which includes records from 267 participants who underwent juvenile criminal proceedings, resulting in a dataset of 406 legal cases documenting the offenses, the imposed sentences as well as some procedural conditions. We

examine how the nature of the offense, the offenders' recidivism, the number of co-offenders, and individual characteristics such as age and migration background influence sentencing decisions. Additionally, we explore how procedural circumstances, like parental presence during the proceedings, vary with the offenses committed and affect sentencing outcomes.

The presentation will focus on the study design and present preliminary descriptive analyses, providing insights into the factors that impact judicial decisions in juvenile criminal cases.

Current status of the paper/project: ongoing (first results can be presented)

CrimeTime: Specifying Temporal Processes and Effects in Criminological Theory and Research
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Hanging out with friends, negative encounters with the police, victimization – all of these are expected to influence criminal behavior in some way, and yet all processes unfold over different short- and long-term timeframes. This exemplifies two key issues in criminology that limit our understanding of criminal behavior and crime prevention. First, expectations about time and temporal processes are not clearly specified in criminological theory. This is partly because we know little about precisely when and over how long these processes should unfold to shape motivation and opportunities for crime. The second key issue is that the most common research designs fail to capture and test these different temporal processes. This project aims to take time seriously in criminology in order to provide more clarity on evidence for theories and more precisely test them. It aims to go back to the basics and re-evaluate theories and mechanisms with attention to how these processes work over time to change motivation and criminal behavior. This project therefore outlines two interrelated research objectives: 1) clarify theorized temporal processes in criminological theory and assess their evidence base, and 2) measure these different temporal processes and rigorously evaluate theoretical expectations and mechanisms leading to crime. The objectives will be achieved by conducting systematic scoping reviews and collecting new prospective data that can capture these short- and long-term processes with a combination of intensive, qualitative, and experimental components. This project's innovative combination of designs will yield new data that is able to answer important, yet neglected questions about temporal processes and effects, as well as provide better insights into the prevention of criminal behavior.

Current status of the paper/project: planned

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➔ **https://www.jacobscenter.uzh.ch/en/research/zproso/ziren/ziren-people.html**