

Z-proso / zIReN meeting in Edinburgh

Panel effects in self-reported offending in longitudinal studies: A quasi-experiment using the Z-Proso study

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Introduction

- The study of offending behavior is essential in all contemporary societies.
 - ❑ Crime statistics;
 - ❑ Risk and protective factors;
 - ❑ Intervention effectiveness.

- Knowledge about offending behavior is reliant on the quality of crime measures.

- “Criminologists have the unfortunate lot of studying a phenomenon that is inherently difficult to measure.”

(Osgood et al., 2002, p. 267)

Measuring crime

- Main methodological techniques of crime assessment:
 - Official records;
 - Observation methods;
 - Self-reports of offending.

- “prevalence and mean frequency of self-reported offending is a better indicator of actual delinquent behavior than is being charged by the police or the frequency of police charges”

(Loeber et al., 2015, p. 163)

- “the self-report method of collecting data on delinquent and criminal behavior is one of the most important innovations in criminological research in the 20th century.”

(Thornberry & Krohn, 2000, p. 34)

Self-reports of offending

- Self-reports are the most widely used measurement methods in the study of the causes of offending behavior.

- Much less attention has been given to measurement biases and cognitive processes.
 - ❑ Comprehend, recall, compute by adding, averaging, and combining behavioral information.

- Sensitive questions
 - ❑ Respondents will deliberately edit their responses in a socially desirable way.
 - ❑ One of the most replicated effects of asking sensitive questions is the tendency of respondents to systematically underreport socially undesirable behaviors.

(Krumpal, 2013; Tourangeau et al., 2000)

Self-reports of offending

- What are the measurement biases in self-reports of offending?
- Aim to systematically review the experimental evidence regarding measurement bias in self-reports of offending.

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Measurement bias in self-reports of offending: a systematic review of experiments



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MEASUREMENT BIAS IN SELF-REPORTS OF OFFENDING: A SYSTEMATIC REVIEW OF EXPERIMENTS

- 21 pooled experiments (33 independent effect sizes).
 - ❑ 18 measurement manipulations.

- Findings were grouped into:
 1. Modes of administration
 - ❑ e.g., Self-administered questionnaire (SAQ) vs. computer-assisted self-interview (CASI) (k = 10);
 - ❑ On average, the mean effect slightly favored CASI over SAQ ($p = .064$).

 2. Procedures of data collection
 - ❑ e.g., Supervision by teachers vs. Supervision by researchers (k = 2);
 - ❑ On average, findings showed no statistically significant effect ($p = .981$).

 3. Questionnaire design
 - ❑ e.g., Response format: 2 options vs. 7 options (k = 1);
 - ❑ Reports of sexual coercion (OR = 3.581, 95% CI [1.339, 9.575]) were higher in the 7-option response condition.

MEASUREMENT BIAS IN SELF-REPORTS OF OFFENDING: A SYSTEMATIC REVIEW OF EXPERIMENTS

➤ Findings

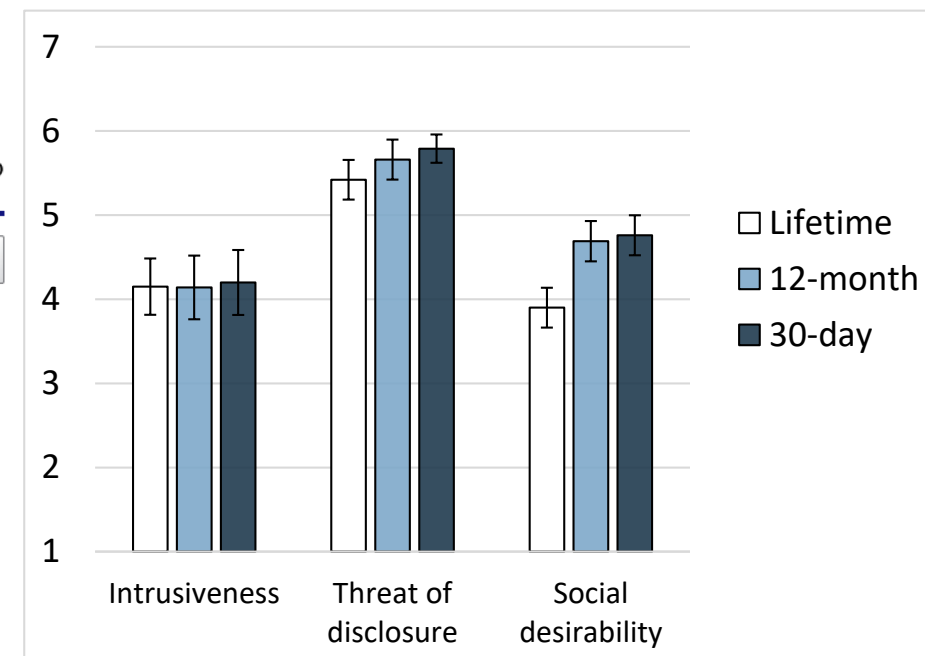
- ❑ Self-reported offending showed generally consistent and stability.

“we have no evidence that respondents find efforts to measure their delinquent behavior particularly threatening.”

(Hindelang et al., 1981, p. 124)

How sensitive are self-reports of offending?: the impact of recall periods on question sensitivity

Hugo S. Gomes^a, David P. Farrington^b, Marvin D. Krohn^c and Ângela Maia^a



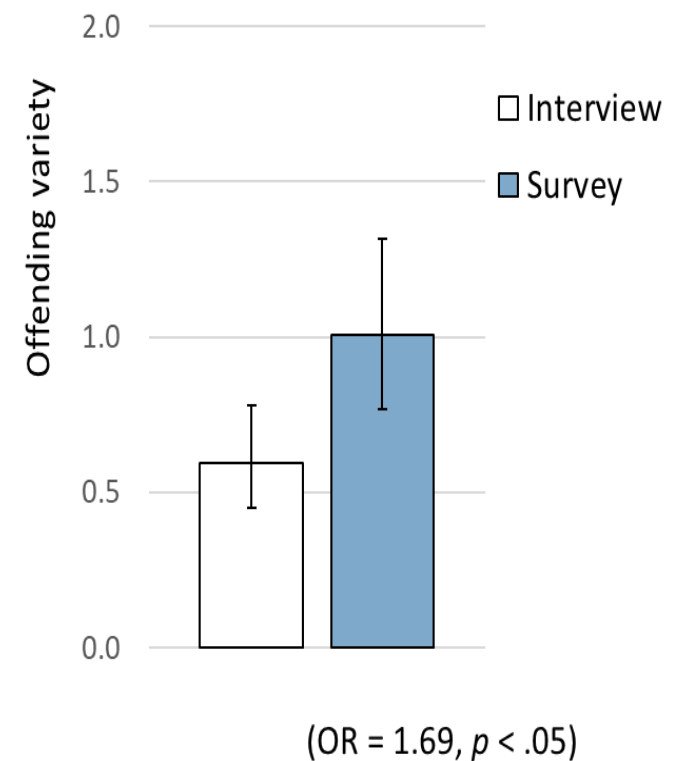
MEASUREMENT BIAS IN SELF-REPORTS OF OFFENDING: A SYSTEMATIC REVIEW OF EXPERIMENTS

➤ Findings

- ❑ Self-reported offending showed generally consistent and stability.
- ❑ Methodological research self-reports of offending are very scarce.
 - Lack of replication.
- ❑ Contradictory results from the literature on sensitive questions.

Personal interview (PI) vs. self-administered questionnaire (SAQ) (k = 3)

Gomes, H. S., Farrington, D. P., Krohn, M. D., Cunha, A., Jurdi, J., Sousa, B., Morgado, D., Hoft, J., Hartsell, E., Kassem, L., & Maia, Â. (2022). *The impact of modes of administration on self-reports of offending: Evidence from a methodological experiment with University students* [Manuscript submitted for publication].

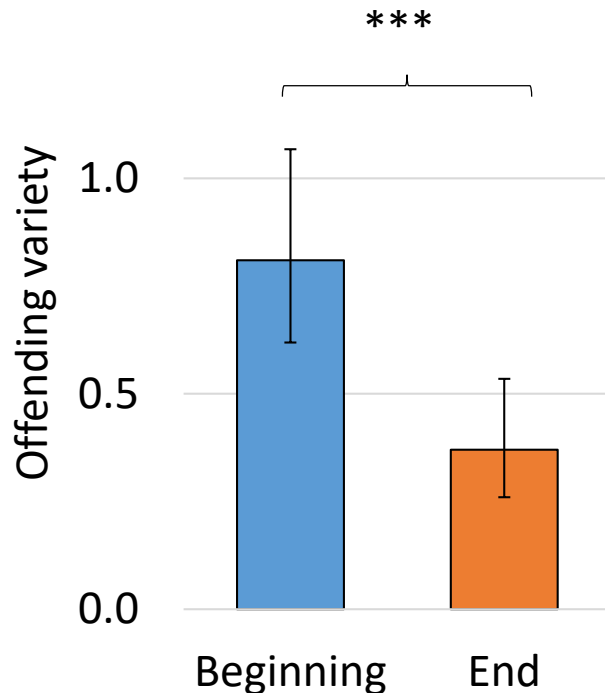


OTHER FINDINGS USING SELF-REPORTS OF OFFENDING

Results

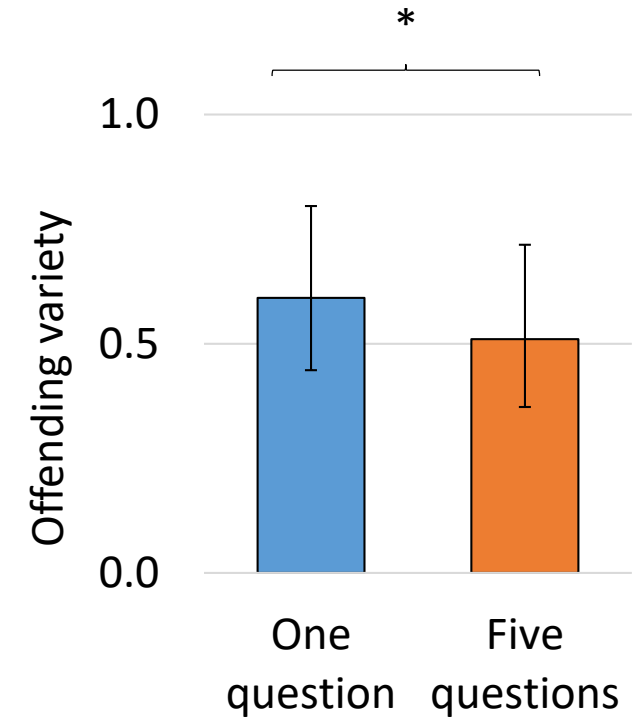
➤ Number of follow-up questions:

- Presented a significant main effect on lifetime offending (IRR =2.13, 95% CI [1.043, 4.351]).



➤ Position of offending questionnaire:

Showed significant main effect on lifetime offending (IRR = 3.97, 95% CI [2.024, 7.804]).



MEASUREMENT BIAS IN SELF-REPORTS OF OFFENDING: A SYSTEMATIC REVIEW OF EXPERIMENTS

➤ Findings

- Self-reported offending showed generally consistent and stability.
- Methodological research self-reports of offending are very scarce.
 - Lack of replication.
- Contradictory results from the literature on sensitive questions.
- No evidence on the accuracy and potential biases of self-reports of offending in longitudinal studies.

BIAS IN SELF-REPORTS OF OFFENDING IN LONGITUDINAL STUDIES

- Current knowledge about offending behavior is increasingly reliant on longitudinal studies.
 - ❑ Exploring the extent to which self-reports of offending are affected by testing effects, as well as testing ways to mitigate these impacts, should be a priority of survey researchers in the field of offending behavior.
 - ❑ Testing effects:
 - “any alterations of a subject’s response to a particular item or scale caused by the prior administration of the same item or scale” (Thornberry, 1989, p. 351).
 - ❑ Panel effects:
 - Refer to “a more general reaction to being re-interviewed”, rather than a specific reaction to questionnaire characteristics (Thornberry, 1989, p. 361).

BIAS IN SELF-REPORTS OF OFFENDING IN LONGITUDINAL STUDIES

- Thornberry (1989) was able to find a decrease in the prevalence of delinquent behavior as a function of the number of prior interviews.

Stole	12	15	10											
Something	13	16	16	15				-						
Under	14	21	18	17	11			=	-					
\$5	15	25	21	11	12	12		-	-	-				
	16	18	25	19	12	13	10	-	-	+	=			
	17	21	18	15	9	9	7	+	-	-	+	-		
	18		17	15	10	10	8	-	-	-	=	-	-	
	19			10	9	8	6		-	-	=	-	-	
	20				7	9	7			-	-	-	-	
	21					6	8				+	-	-	
												+	-	+

- Other researchers also demonstrated reductions in participants' reports of delinquency in prospective longitudinal studies that were inconsistent with the age-crime curve (e.g., Bosick, 2009).

BIAS IN SELF-REPORTS OF OFFENDING IN LONGITUDINAL STUDIES

➤ Panel conditioning effect:

- ❑ a phenomenon where previous responses influence how individuals respond in subsequent waves.

(Das et al., 2007)

- ❑ “The panel conditioning effect has been examined in other fields (...), but has not received much attention in the criminological literature so far”

(Kim & Bushway, 2018)

- ❑ Some studies have shown changes in reporting across waves of a panel that represents increases in data quality:

- Respondents report more honestly and give fewer “don’t know” responses over time (Waterton & Lievesley, 1989);
- Kroh et al. (2016) estimated that four additional rounds of participation increased reliability about as much as the difference between having a college degree and a grade school education.

Are SRO affected by testing effects?

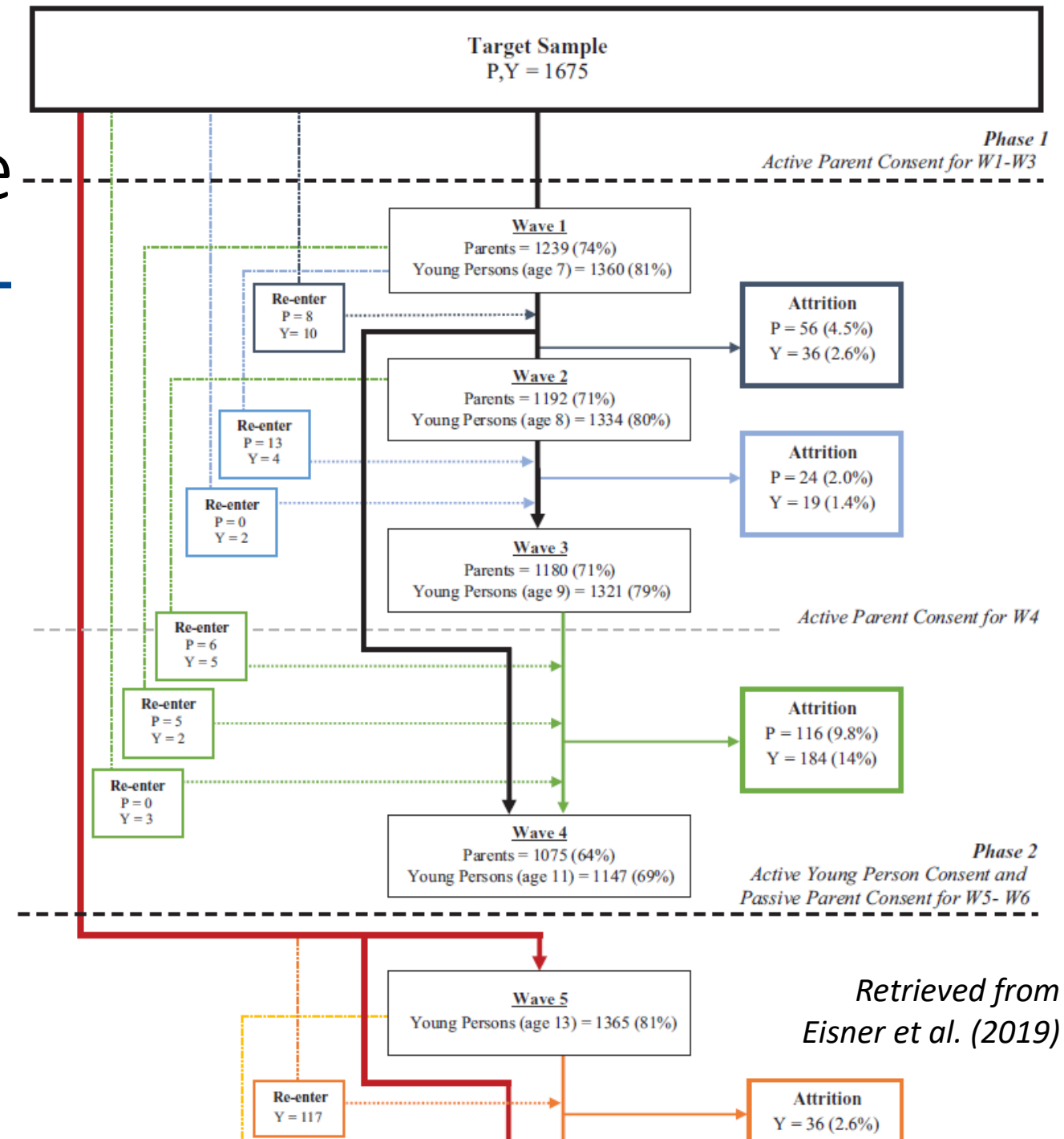
Future research

- Krohn et al. (2012) proposed experimental design:
 - “a longitudinal study in which the sample is randomly divided into groups, with some groups receiving all assessments starting at time T and others entering the panel at later assessments, T + 1, T + 2, and so on.”
 - “If there are systematic differences in responses at T + 1, or at subsequent assessments, it would provide direct evidence of testing effects” (Krohn et al., 2012, p. 32).
- Re-analysis of existing panel studies.
 - Especially using experimental or quasi-experimental designs to compared participants with different number of waves of data collection.

Panel effects in self-re

Research design

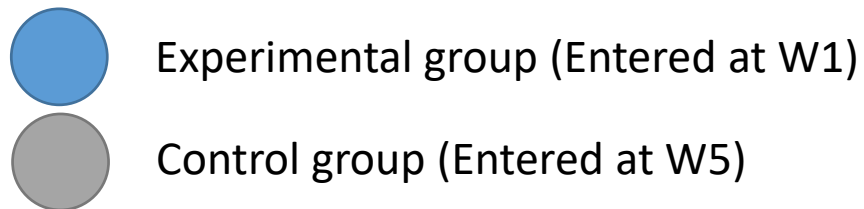
- A group of participants entered the study at Wave 5.
- This provides a unique opportunity to look at the effect of having completed a different number of waves of data collection on response quality using a quasi-experimental research design.



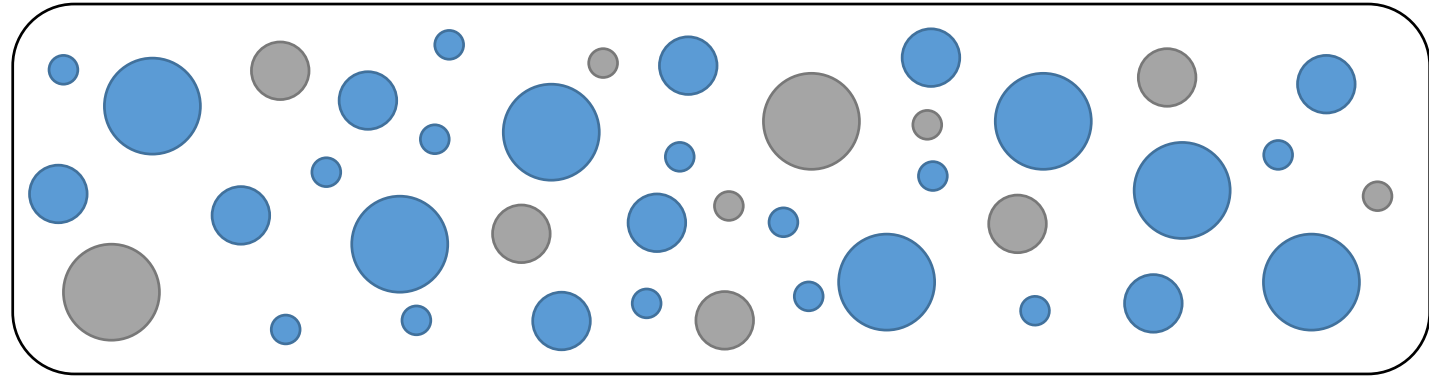
Panel effects in self-reported offending

Research design

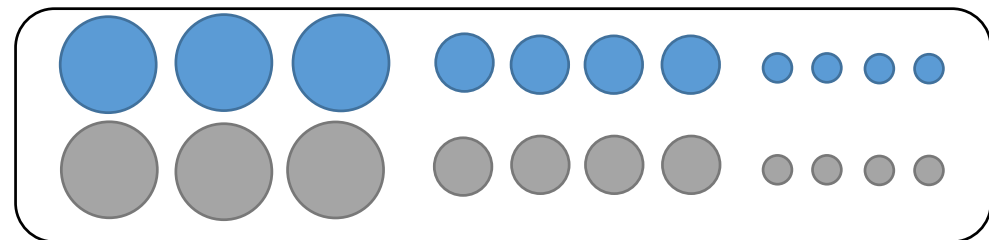
➤ Quasi-experimental study



Total sample at W5 with varying characteristics



Study group with matching



Panel effects in self-reported offending

Research design

➤ Participants

- Total sample of 1.675, of which 310 did not completed W5 and were removed;
- Out of the remaining sample of 1.365, 226 that entered at W1 did not complete the full four waves and were removed;
- Out of the remaining 1.139 participants, 145 did not showed information regarding officially recorded convictions and were removed (this included 40 participants in the control group).
- Looking at the quality of responses in W5, two participants provided “very unthoroughly completed questionnaire” and six provided “Obviously untrue answers” and were removed.
- Final sample moving forward to PSM was composed by a total of 987 students at W5.

	Control group (In5)	Experimental (In1)
Frequency of participants	162 (16.41%)	825 (83.59%)

Baseline Characteristics (part 1/2)

Variable	Control (1 st wave) (n = 162)	Experimental (5 th wave) (n = 825)	test	p
Demographics				
Age, M (SD) y	13.71 (0.36)	13.65 (0.36)	$t_{(985)} = 1.85$	.064
Sex, n (%) Male	82 (50.6)	416 (50.5)	$\chi^2_{(1)} = 0.01$	.976
BMI, M (SD)	20.19 (3.25)	19.50 (2.76)	$t_{(985)} = 2.77$	.006
Participants' Nation., n (%) Swiss	144 (88.9)	742 (89.9)	$\chi^2_{(1)} = 0.16$	.687
Fathers' Nation., n (%) Swiss	37 (23.0)	341 (41.9)	$\chi^2_{(1)} = 20.35$	>.001
Mothers' Nation., n (%) Swiss	30 (18.8)	364 (44.8)	$\chi^2_{(1)} = 37.57$	>.001
Family factors				
Parents divorced, n (%) Y	41 (25.5)	227 (27.8)	$\chi^2_{(1)} = 0.36$	.547
Number of siblings, M (SD)	1.54 (1.32)	1.35 (1.18)	$t_{(980)} = 1.90$	.058
Living with mother, n (%) Y	155 (95.7)	796 (97.1)	$\chi^2_{(1)} = 0.86$	.354
Living with father, n (%) Y	127 (80.4)	667 (81.7)	$\chi^2_{(1)} = 0.16$	.687
Highest education PC, M (SD)	4.09 (2.52)	5.87 (3.09)	$t_{(937)} = -6.57$	>.001
Live with other adults, n (%) Y	16 (10.4)	44 (5.5)	$\chi^2_{(1)} = 5.36$	.021
Number of other adults, M (SD)	1.69 (1.78)	1.40 (1.03)	$t_{(57)} = 0.79$	.435
Parenting scales (PAR1)				
Parenting involvement, M (SD)	2.98 (0.59)	3.13 (0.65)	$t_{(981)} = -3.12$	.002
Positive parenting, M (SD)	3.26 (0.55)	3.19 (0.63)	$t_{(957)} = 1.32$	.187
Parental supervision, M (SD)	3.08 (0.60)	3.15 (0.47)	$t_{(981)} = -1.67$	.172
Child disclosure, M (SD)	3.18 (0.59)	3.14 (0.48)	$t_{(973)} = 0.73$	.464
Parental monitoring, M (SD)	3.12 (0.60)	3.14 (0.69)	$t_{(981)} = -0.55$.585
Parenting authoritarianism, M (SD)	2.37 (0.61)	2.20 (0.67)	$t_{(963)} = 2.90$.004

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Baseline Characteristics (part 2/2)

Variable	Control (1 st wave) (n = 162)	Experimental (5 th wave) (n = 825)	<i>test</i>	<i>p</i>
Parenting scales (PAR2)				
Aversive parenting, M (SD)	1.80 (0.34)	1.77 (0.32)	$t_{(982)} = 1.18$	.240
Erratic parenting, M (SD)	2.15 (0.51)	2.15 (0.50)	$t_{(979)} = 0.05$	.962
Corporal punishment, M (SD)	1.22 (0.39)	1.16 (0.34)	$t_{(982)} = 2.02$	.043
Other sanctions, M (SD)	2.24 (0.72)	2.20 (0.70)	$t_{(970)} = 0.61$	.540
Moral (MJUDG), M (SD)	4.84 (1.18)	4.63 (1.24)	$t_{(980)} = 2.05$	.401
Moral neutraliz. (MJUST), M (SD)	2.15 (0.49)	1.99 (0.52)	$t_{(983)} = 3.52$	>.001
Violence legit. (MASCU), M (SD)	2.61 (0.69)	2.30 (0.74)	$t_{(984)} = 4.78$	>.001
Legal cynism (LEGCYN), M (SD)	2.28 (0.57)	2.16 (0.58)	$t_{(981)} = 2.37$	.018
EVENT – M. to foster care, n (%) Y	3 (1.9)	7 (0.9)	$\chi^2_{(1)} = 1.35$	.245
EVENT – Parents split/mov., n (%) Y	7 (4.3)	44 (5.3)	$\chi^2_{(1)} = 0.29$	.590
EVENT – Parents n/partner, n (%) Y	6 (3.8)	39 (4.8)	$\chi^2_{(1)} = 0.32$	.572
Victimization prev., n (%) Y	35 (21.6)	145 (17.6)	$\chi^2_{(1)} = 1.46$	.227
Bullying victim, M (SD)	1.69 (0.77)	1.72 (0.79)	$t_{(983)} = -0.46$	.647
General trust, M (SD)	2.54 (0.61)	2.61 (0.56)	$t_{(981)} = -1.53$	.127
Self-Control, M (SD)	2.20 (0.48)	2.18 (0.45)	$t_{(981)} = 0.33$	.745
Shame, M (SD)	2.76 (0.75)	2.76 (0.72)	$t_{(981)} = -0.09$	.925
Money-additional, M (SD)	22.11 (43.05)	39.57 (382.60)	$t_{(914)} = -0.56$	.577
Money-total, M (SD)	62.80 (89.45)	95.96 (68.75)	$t_{(907)} = 0.44$	.661
No best friend/lover, n (%) Y	10 (6.2)	41 (5.0)	$\chi^2_{(1)} = 0.41$	.520
Peer delinquency, M (SD)	0.15 (0.21)	0.14 (0.20)	$t_{(925)} = 0.91$	.363
Romantic partner delinq., M (SD)	0.23 (0.26)	0.20 (0.26)	$t_{(158)} = 0.60$	.548
Convictions	24 (14.8)	143 (17.3)	$\chi^2_{(1)} = 0.61$	.434

Baseline Characteristics (part 2/2)

Variable	Control (1 st wave) (n = 162)	Experimental (5 th wave) (n = 825)	<i>test</i>	<i>p</i>
Parenting scales (PAR2)				
Aversive parenting, M (SD)	1.80 (0.34)	1.77 (0.32)	$t_{(982)} = 1.18$.240
Erratic parenting, M (SD)	2.15 (0.51)	2.15 (0.50)	$t_{(979)} = 0.05$.962
Corporal punishment, M (SD)	1.22 (0.39)	1.16 (0.34)	$t_{(982)} = 2.02$.043
Other sanctions, M (SD)	2.24 (0.72)	2.20 (0.70)	$t_{(970)} = 0.61$.540
Moral (MJUDG), M (SD)	4.84 (1.18)	4.63 (1.24)	$t_{(980)} = 2.05$.401
Moral neutraliz. (MJUST), M (SD)	2.15 (0.49)	1.99 (0.52)	$t_{(983)} = 3.52$	>.001
Violence legit. (MASCU), M (SD)	2.61 (0.69)	2.30 (0.74)	$t_{(984)} = 4.78$	>.001
Legal cynism (LEGCYN), M (SD)	2.28 (0.57)	2.16 (0.58)	$t_{(981)} = 2.37$.018
EVENT – M. to foster care, n (%) Y	3 (1.9)	7 (0.9)	$\chi^2_{(1)} = 1.35$.245
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Convictions	24 (14.8)	143 (17.3)	$\chi^2_{(1)} = 0.61$.434

Panel effects in self-reported offending

Research design

➤ Propensity Score Matching

- We used a matching ratio of 2:1 (i.e., two experimental cases to every control case);
- With a standard caliper of .05 (the experimental case had to have a propensity score that was within $\pm .05$ *standard deviation of the calculated propensity score);
- Propensity score was calculated using:
 - Age,
 - Sex,
 - BMI,
 - Fathers' Nationality,
 - Mothers' Nationality,
 - Number of siblings,
 - Highest education PC,
 - Live with other adults,
 - Parenting involvement,
 - Parenting authoritarianism,
 - Corporal punishment,
 - Moral neutralization,
 - Violence legitimizing norms of masculinity,
 - Legal cynicism, and
 - convictions.

After PSM Characteristics (part 1/2)

Variable	Control (1 st wave) (n = 131)	Experimental (5 th wave) (n = 262)	test	p
Demographics				
Age, M (SD) y	13.72 (0.37)	13.71 (0.36)	$t_{(391)} = 0.35$	.730
Sex, n (%) Male	68 (51.9)	135 (51.5)	$\chi^2_{(1)} = 0.01$	.943
BMI, M (SD)	20.24 (3.33)	20.04 (2.92)	$t_{(391)} = 0.61$	.544
Participants' Nation., n (%) Swiss	116 (88.5)	227 (86.6)	$\chi^2_{(1)} = 0.29$	.593
Fathers' Nation., n (%) Swiss	32 (24.4)	62 (23.7)	$\chi^2_{(1)} = 0.03$	.867
Mothers' Nation., n (%) Swiss	26 (19.8)	49 (18.7)	$\chi^2_{(1)} = 0.07$	.785
Family factors				
Parents divorced, n (%) Y	30 (23.1)	61 (23.6)	$\chi^2_{(1)} = 0.02$	.901
Number of siblings, M (SD)	1.53 (1.18)	1.53 (1.27)	$t_{(391)} = 0.03$	.977
Living with mother, n (%) Y	127 (96.9)	256 (98.1)	$\chi^2_{(1)} = 0.50$	.478
Living with father, n (%) Y	108 (83.7)	216 (82.8)	$\chi^2_{(1)} = 0.06$	.812
Highest education PC, M (SD)	4.12 (2.52)	4.07 (2.65)	$t_{(391)} = 0.18$	.859
Live with other adults, n (%) Y	14 (10.7)	22 (8.4)	$\chi^2_{(1)} = 0.55$	.458
Number of other adults, M (SD)	1.29 (0.61)	1.33 (0.58)	$t_{(33)} = -0.23$	.817
Parenting scales (PAR1)				
Parenting involvement, M (SD)	3.00 (0.57)	3.02 (0.61)	$t_{(391)} = -0.31$	.761
Positive parenting, M (SD)	3.30 (0.58)	3.16 (0.65)	$t_{(382)} = 2.09$	.037
Parental supervision, M (SD)	3.07 (0.62)	3.04 (0.65)	$t_{(391)} = 0.44$	.661
Child disclosure, M (SD)	3.17 (0.67)	3.06 (0.64)	$t_{(389)} = 1.58$	.115
Parental monitoring, M (SD)	3.11 (0.49)	3.05 (0.50)	$t_{(391)} = 1.24$	.218
Parenting authoritarianism, M (SD)	2.37 (0.69)	2.33 (0.69)	$t_{(391)} = 0.60$	.549

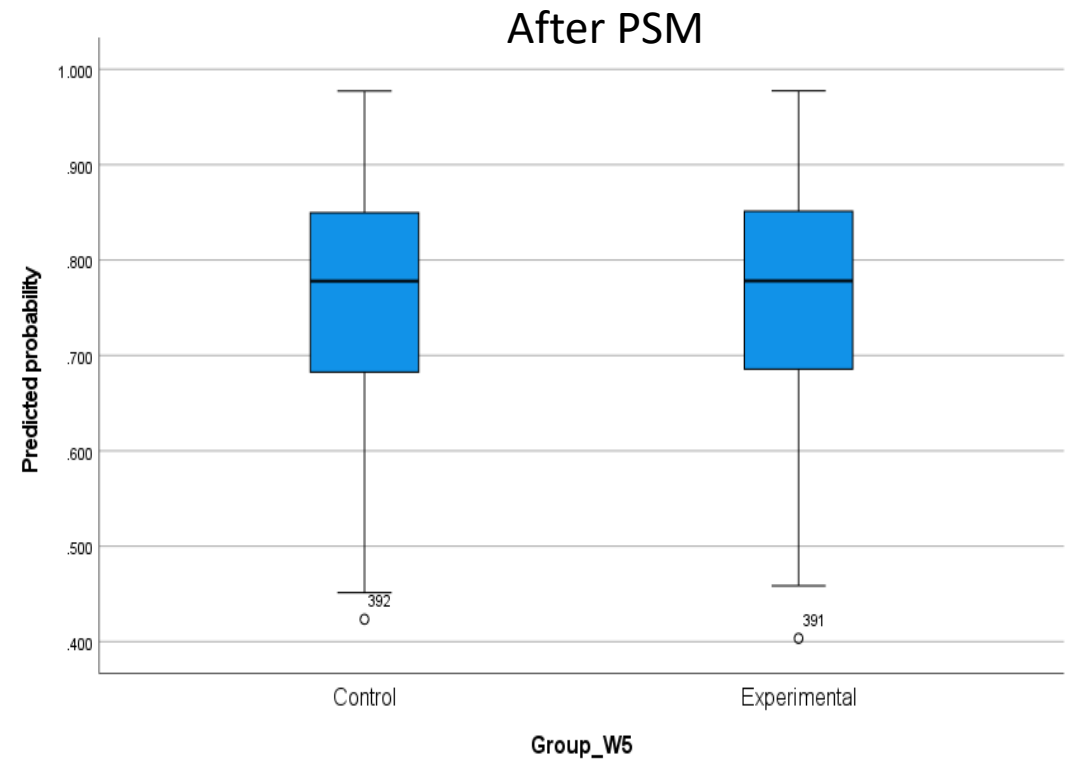
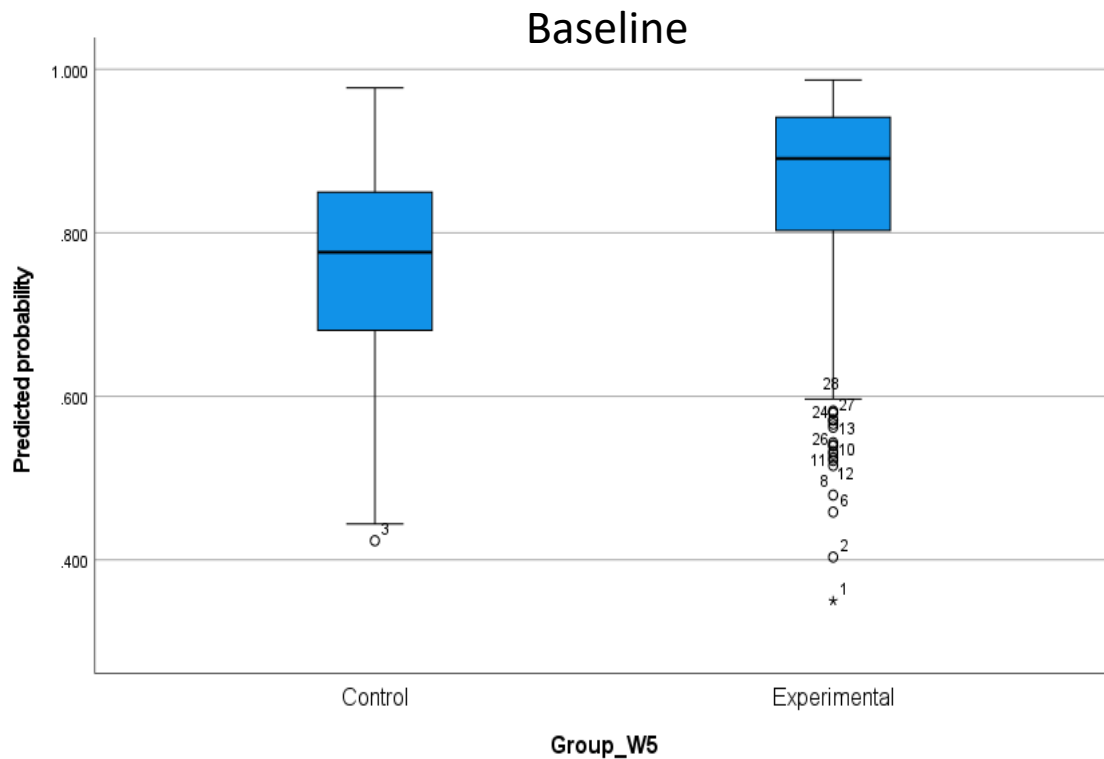
After PSM Characteristics (part 2/2)

Variable	Control (1 st wave) (n = 162)	Experimental (5 th wave) (n = 825)	<i>test</i>	<i>p</i>
Parenting scales (PAR2)				
Aversive parenting, M (SD)	1.80 (0.33)	1.83 (0.31)	$t_{(391)} = -0.60$	.550
Erratic parenting, M (SD)	2.16 (0.51)	2.21 (0.48)	$t_{(390)} = -1.08$	.280
Corporal punishment, M (SD)	1.23 (0.41)	1.19 (0.37)	$t_{(391)} = 0.85$	.398
Other sanctions, M (SD)	2.24 (0.72)	2.20 (0.72)	$t_{(383)} = 0.58$	.563
Moral (MJUDG), M (SD)	4.87 (1.16)	4.59 (1.30)	$t_{(389)} = 2.05$	.041
Moral neutraliz. (MJUST), M (SD)	2.15 (0.49)	2.15 (0.53)	$t_{(391)} = 0.07$	.945
Violence legit. (MASCU), M (SD)	2.61 (0.70)	2.64 (0.73)	$t_{(391)} = -0.31$	.759
Legal cynism (LEGCYN), M (SD)	2.30 (0.56)	2.32 (0.57)	$t_{(391)} = -0.36$	.723
EVENT – M. to foster care, n (%) Y	1 (0.8)	3 (1.1)	$\chi^2_{(1)} = 0.13$	.720
EVENT – Parents split/mov., n (%) Y	7 (5.3)	14 (5.4)	$\chi^2_{(1)} = 0.00$	.993
EVENT – Parents n/partner, n (%) Y	5 (3.9)	7 (2.7)	$\chi^2_{(1)} = 0.39$	.534
Victimization prev., n (%) Y	27 (20.6)	57 (21.8)	$\chi^2_{(1)} = 0.07$	.794
Bullying victim, M (SD)	1.70 (0.76)	1.72 (0.83)	$t_{(391)} = -0.30$	.768
General trust, M (SD)	2.54 (0.63)	2.62 (0.57)	$t_{(390)} = -1.29$	.197
Self-Control, M (SD)	2.21 (0.49)	2.24 (0.48)	$t_{(390)} = -0.52$	.605
Shame, M (SD)	2.74 (0.74)	2.74 (0.71)	$t_{(390)} = -0.05$	.958
Money-additional, M (SD)	22.74 (45.94)	36.48 (198.35)	$t_{(363)} = -0.75$	.453
Money-total, M (SD)	64.17 (96.82)	67.03 (92.50)	$t_{(360)} = -0.27$	.785
No best friend/lover, n (%) Y	7 (5.3)	12 (4.6)	$\chi^2_{(1)} = 0.11$	.739
Peer delinquency, M (SD)	0.15 (0.21)	0.16 (0.22)	$t_{(366)} = -0.49$	.624
Romantic partner delinq., M (SD)	0.22 (0.27)	0.18 (0.24)	$t_{(74)} = 0.78$	.436
Convictions	18 (13.7)	38 (14.5)	$\chi^2_{(1)} = 0.04$	.838

Panel effects in self-reported offending

Research design

➤ Propensity Score Matching - predicted probabilities



Panel effects in self-reported offending

Results

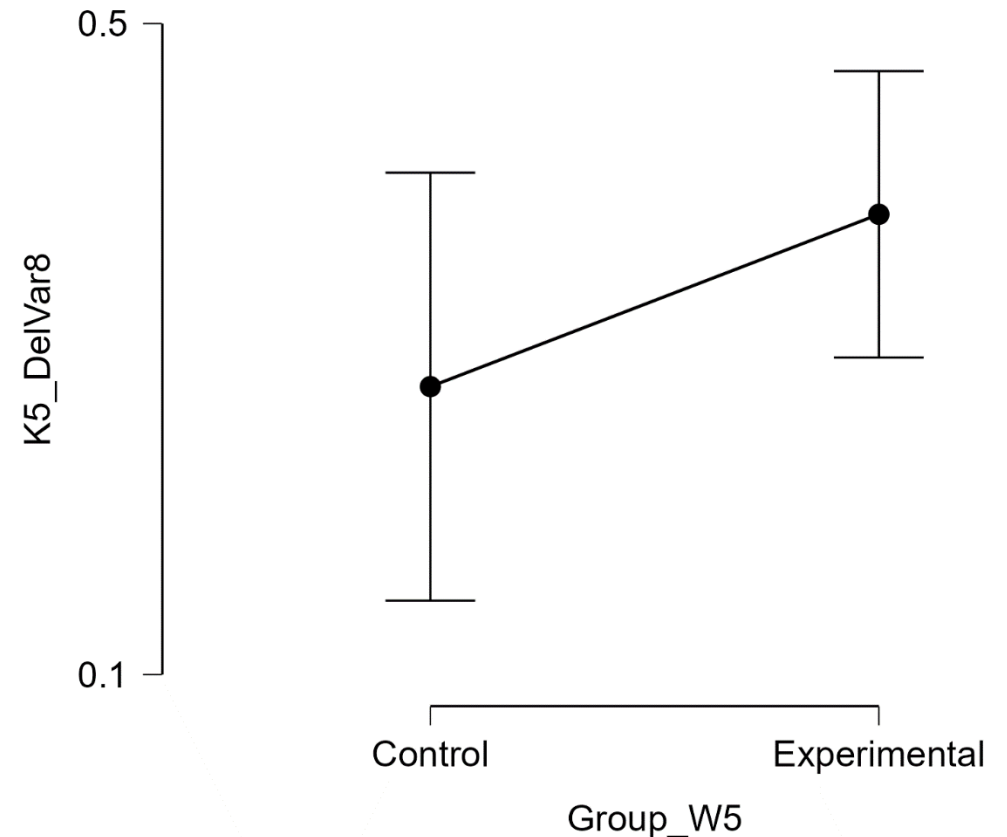
Past-year offending	Control (<i>n</i> = 131)	Experimental (<i>n</i> = 262)	B	SE	<i>p</i>	OR/ β	95% CI
Prevalence (%)							
Across bullying, subst. use & all delinq.	91.5	92.3	-0.00	0.41	.993	1.00	[0.449, 2.210]
Delinquency	86.9	89.2	0.01	0.35	.976	1.01	[0.511, 1.997]
Serious delinq.	17.7	27.4	0.40	0.29	.172	1.49	[0.839, 2.661]
Violent behavior	9.2	15.8	0.46	0.38	.223	1.58	[0.757, 3.311]
Substance use	32.3	41.7	0.36	0.24	.142	1.43	[0.887, 2.309]
Variety (M [SD])							
Across bullying, subst. use & all delinq.	3.77 (2.83)	4.27 (3.16)	0.26	.29	.376	0.04	[-0.317, 0.838]
Delinquency	2.95 (2.70)	3.12 (2.54)	-0.06	0.25	.813	-0.01	[-0.548, 0.431]
Serious delinq.	0.28 (0.76)	0.38 (0.72)	0.06	0.07	.408	0.04	[-0.084, 0.206]
Violent behavior	0.10 (0.33)	0.17 (0.41)	0.05	0.04	.227	0.06	[-0.031, 0.128]
Substance use	0.61 (1.05)	0.76 (1.09)	0.10	0.11	.348	0.05	[-0.113, 0.319]

Panel effects in self-reported offending

Results

➤ Bayesian analysis

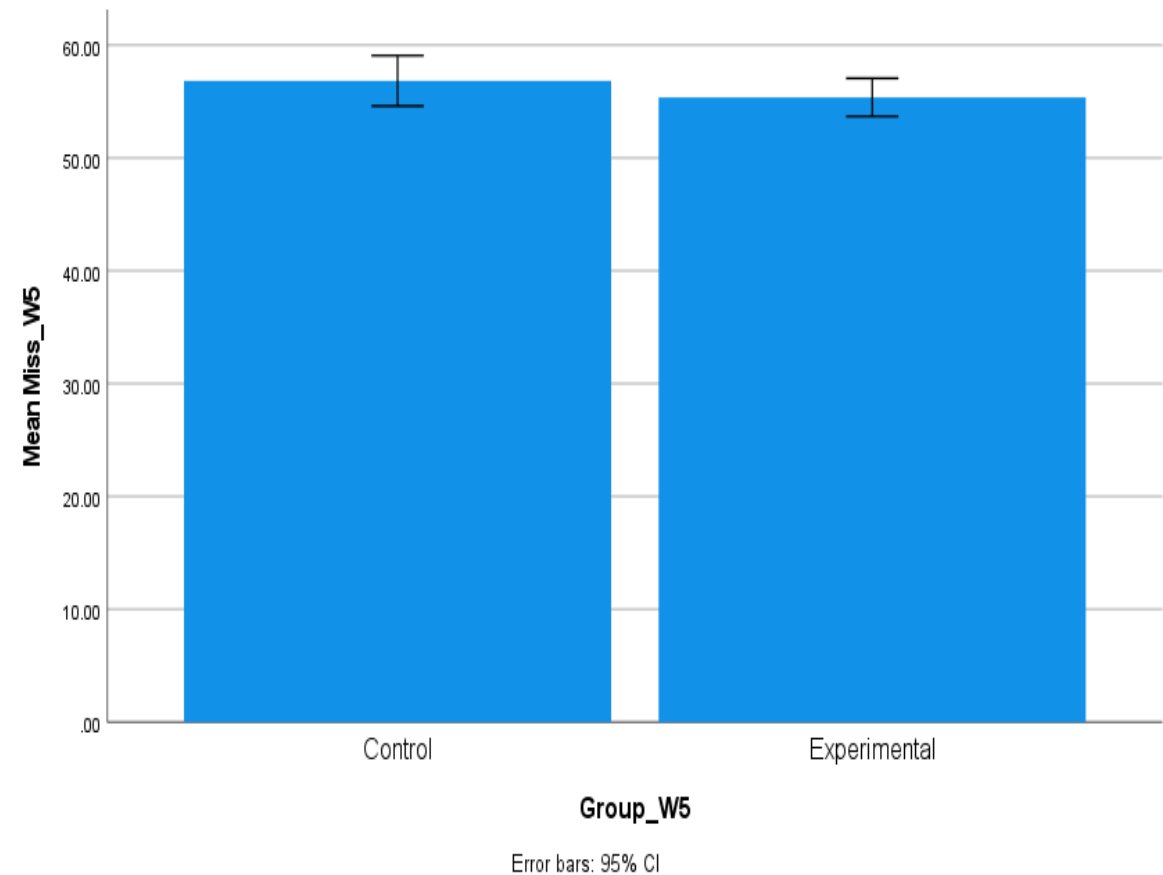
- We observed a $BF_{01} = 3.54$ indicating that the Bayes Factor is 3.54 times in favor of the null hypothesis relative to the alternative hypothesis.
- In other words, the null hypothesis, that control and experimental group did not differ in SRO, is moderately better at explaining the data than the alternative model.



Panel effects in self-reported offending

Results

- Missing values analysis.
 - Throughout all W5 variables:
 - Control group presented a mean score of 56.85 (12.94) missing values;
 - Experimental group presented a mean of 55.38 (13.87) missing values.
 - This difference was not statistically significant ($B = -1.47$, $SE = 1.45$, $\beta = -.05$, $p = .312$, 95%CI [-4.324, 1.385]).



Panel effects in self-reported offending

Results

➤ Quality of responses

- Participants in the experimental group consistently provided more reliable responses than participants in the control group.

Cronbach's alphas	Control (<i>n</i> = 131)	Experimental (<i>n</i> = 262)	Diff.
Scales			
Moral (MJUDG)	.74	.81	0.07
Moral neutraliz. (MJUST)	.63	.71	0.08
Violence legit. (MASCU)	.85	.89	0.04
Legal cynism (LEGCYN)	.64	.68	0.04
Self-control	.79	.79	0

Are SRO affected by panel effects?

Conclusions

- We found no evidence that the number of waves of data collection affect participants' willingness to report deviant behavior throughout past-year prevalence and variety of bullying, substance use, and delinquent behaviors.
- Further, we found moderate evidence in support of the null hypothesis using Bayesian statistics, providing evidence that self-reports of offending within the Z-proso study are not affected by panel effects.
- Results showed no significant difference in terms of missing values.
- Participants in the experimental group showed slightly higher reliability compared to the control groups.

What about the impact on subsequent waves?

Conclusions

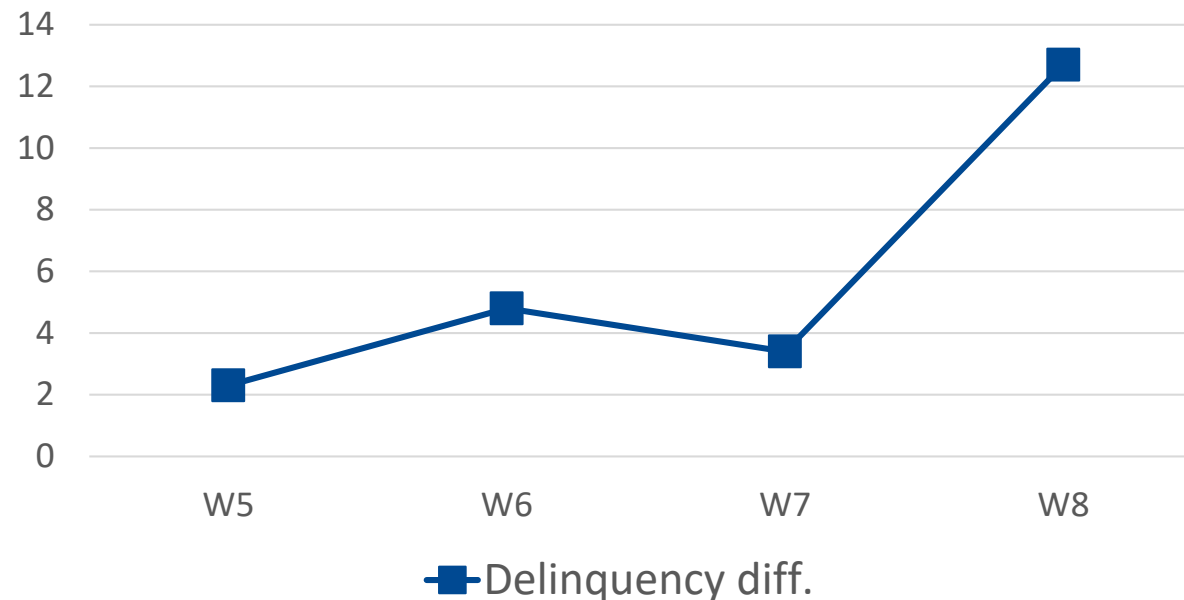
- The difference of self-reported delinquent behavior by number of waves of data collection reached statistical significance in W8.

	Control (n = 131)	Experimental (n = 262)	B	SE	<i>p</i>	OR/ β	95% CI
Past-year offending							
Prevalence (%)							
W5 Delinquency	86.9	89.2	0.01	0.35	.976	1.01	[0.511, 1.997]
W6 Delinquency	47.7	52.5	0.55	0.23	.809	1.06	[0.676, 1.651]
W7 Delinquency	41.2	44.6	0.18	0.23	.445	1.20	[0.756, 1.892]
W8 Delinquency	21.4	34.1	0.84	0.31	.006	2.32	[1.274, 4.231]
Variety (M [SD])							
W5 Delinquency	2.95 (2.70)	3.12 (2.54)	-0.06	0.25	.813	-0.01	[-0.548, 0.431]
W6 Delinquency	1.09 (1.68)	1.33 (1.85)	0.09	0.18	.623	0.02	[-0.269, 0.449]
W7 Delinquency	0.96 (1.47)	1.05 (1.71)	0.08	0.16	.637	0.02	[-0.246, 0.401]
W8 Delinquency	0.40 (1.07)	0.71 (1.38)	0.38	0.14	.007	0.14	[0.104, 0.664]

What about the impact on subsequent waves?

Conclusions

- The difference of self-reported delinquent behavior seems to increase with the number of waves of data collection.
- More research is needed to understand this trend, and if our “manipulation” is fit to explain delinquent behavior in the following waves of data collection.



Z-proso / zIReN meeting in Edinburgh

Panel effects in self-reported offending in longitudinal studies: A quasi-experiment using the Z-Proso study

Thank you!

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