



#### COPING WITH STRESSFUL SITUATIONS IN THE PROFESSIONAL DOMAIN

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OVERCOMING VULNERABILITY: LIFE COURSE PERSPECTIVES

#### **OUR PROJECT**

- Facing critical events in early adulthood: A normative approach to vulnerability and life course regulation
  - Explore regulation of vulnerable situations as a function of internal and external vulnerability
  - Young adults 15-30 year olds
- Goal of this study: Explore the relationship between stress, self-efficacy, and optimism in education
  - Self-efficacy as resource to overcome stress?



#### INTRODUCTION – STRESS AND OPTIMISM

#### Optimism

- Expecting "positive outcomes, even when things are difficult" (Scheier, Carver, & Bridges, 2001, p. 191)
- Predictor of subjective well-being (e.g., Chang & Sanna, 2001; Diener, Oishi, & Lucas, 2003; Eid & Diener, 2004; Makikangas & Kinnunen, 2003)

#### Educational stress

- Predictor of educational dropout (Eicher et al., 2013), leading to higher rates of unemployment and lower income (Belfield & Levin, 2007)
- Predictor of less psychological well-being (e.g., Chang, 1998)



#### INTRODUCTION — SELF-EFFICACY

## Self-efficacy

- "Conviction that one can successfully execute the behavior required to produce the outcomes" (Bandura, 1977, p. 193)
- Seen as stable (general self-efficacy, e.g., Chen, Gully, & Eden, 2001;
  Mortimer, Lorence, & Kumka, 1986; but see Gurin & Brim, 1984)



# INTRODUCTION — RELATION BETWEEN SELF-EFFICACY AND STRESS

## 1. Self-efficacy X Stress

 Self-efficacy moderates positive impact of stress on strain (e.g., Jex & Bliese, 1999)

# 2. Self-efficacy → Stress

- Self-efficacy crucial in evaluating demands from environment (Lazarus' cognitive model of stress, Lazarus & Folkman, 1984)
- Self-efficacy → stress → burnout: Confirmed in 1-year-longitudinal cross-lagged model (Schwarzer & Hallum, 2008)

# 3. Physiological Stress → Self-efficacy

 Physiological arousal states due to stress affect self-efficacy (Bandura, 1977; Solberg et al., 1998).



# MODERATION OR MEDIATION?

Self-efficacy Stress Optimism Stress Self-efficacy Optimism Self-efficacy Optimism Stress



#### METHOD - DATA

- TREE survey (since 2001)
- N = 6343
- Years used in this study: 2001-2004
- Students who were in education (vocational or college-track)
  for at least three out of four years
- N = 4312
- N = 2412 women (55.9 % women)
- N = 3833 born in Switzerland (89.3 %)



#### **METHOD – MEASURES**

Optimism (5 items)

- "Whatever happens, I can see the positive side of it."
- Scale from 1 to 6
- $\alpha = .82 85$
- Educational stress (5 items)
  - "At school, I often feel out of my depth."
  - Scale from 1 to 5
  - $\alpha = .78 82$
- Self-efficacy (4 items)
  - "I am confident that I could deal efficiently with unexpected events."
  - Scale from 1 to 4
  - $\alpha = .72 74$



# **RESULTS – MODERATION**



	B (S.E.)	t	
Intercept	4.77 (0.02)	306.82***	
Time (linear)	-0.01 (0.00)	-2.63**	
Time (quadratic)	0.00 (0.00)	0.98	
Men	0.05 (0.02)	2.88**	
Non-Swiss	-0.12 (0.03)	-3.97***	
Stress	-0.12 (0.01)	-14.27***	
Self-efficacy	0.54 (0.01)	39.25***	
Stress X Self-efficacy	0.06 (0.01)	4.45***	

Stress







# **RESULTS - MEDIATION**



Self-efficacy

	Model a		Model b	
	B (S.E.)	t	B (S.E.)	t
Intercept	4.76 (0.02)	311.74***	4.76 (0.02)	
				306.81***
Time (linear)	-0.01 (0.00)	-2.13*	-0.01 (0.00)	-2.56*
Time (quadratic)	0.00 (0.00)	0.88	0.00 (0.00)	1.02
Men	0.08 (0.02)	4.10***	0.05 (0.02)	2.79**
Non-Swiss	-0.11 (0.03)	-3.75***	-0.12 (0.03)	-3.96***
Self-efficacy	0.58 (0.01)	43.92***	0.55 (0.01)	39.44***
Stress			-0.12 (0.01)	-14.19***



# **RESULTS – MEDIATION**



	Model a		Model b	
	B (S.E.)	t	B (S.E.)	t
Intercept	4.74 (0.02)	275.84***	4.76 (0.02)	
				306.81***
Time (linear)	-0.01 (0.00)	-1.86	-0.01 (0.00)	-2.56*
Time (quadratic)	-0.01 (0.00)	-2.18*	0.00 (0.00)	1.02
Men	0.14 (0.02)	6.64***	0.05 (0.02)	2.79**
Non-Swiss	-0.11 (0.03)	-3.18***	-0.12 (0.03)	-3.96***
Stress	-0.18 (0.01)	-19.93***	-0.12 (0.01)	-14.19***
Self-efficacy			0.55 (0.01)	39.44***

Stress



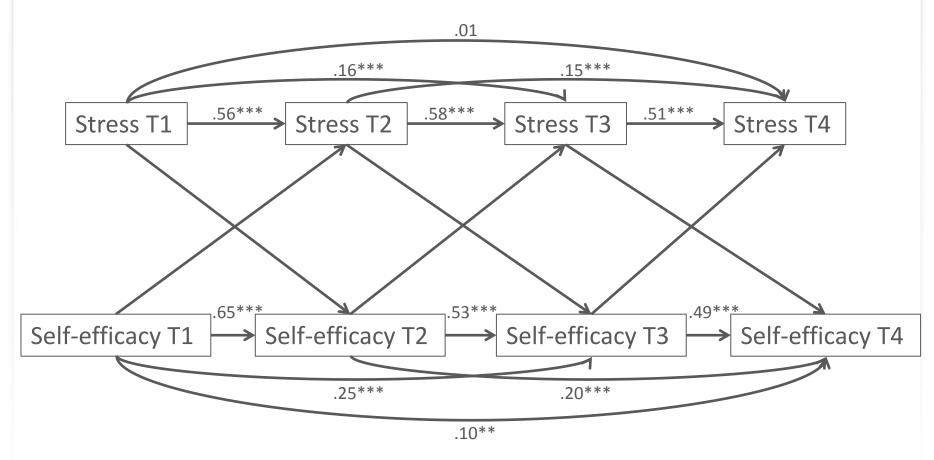
# MODERATION OR MEDIATION?

Self-efficacy Stress Optimism Stress Self-efficacy Optimism Self-efficacy Optimism Stress



# RESULTS – CROSS-LAGGED MODEL

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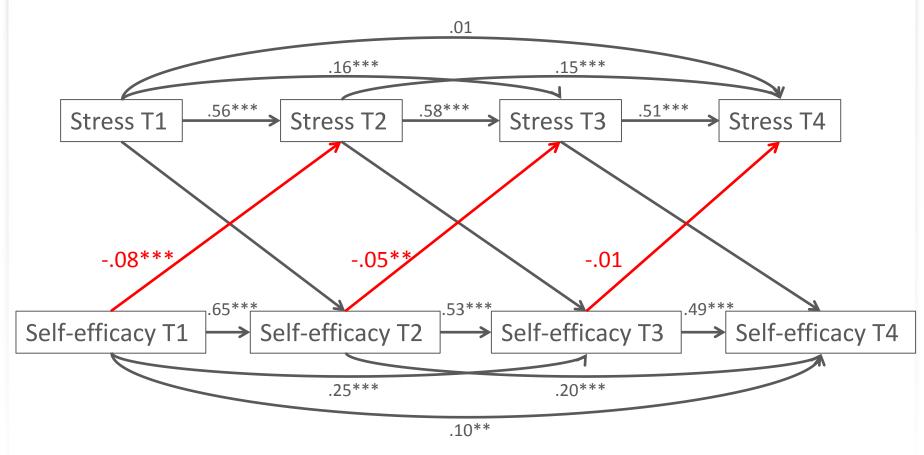


LIVES Swiss National Centre of Competence in Research

 $X^{2}(518) = 2225.8***$ , CFI = .96, TLI = .95, RMSEA = .028 (.026 - .029)

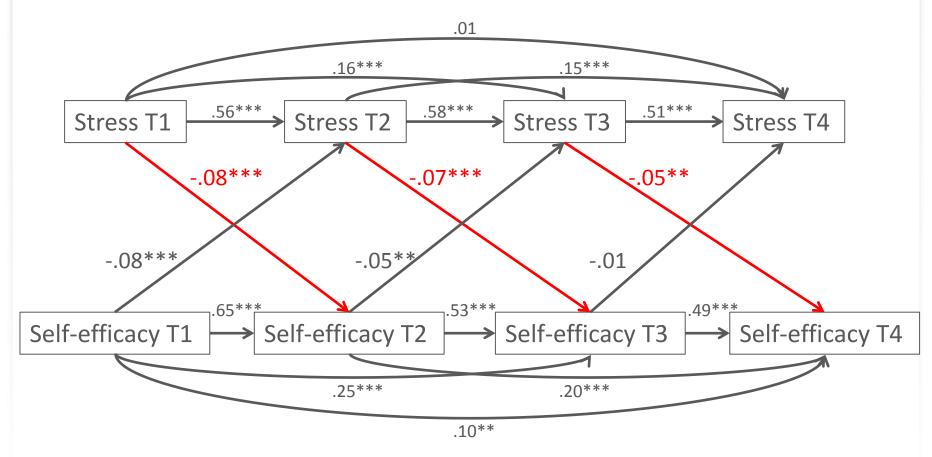
## RESULTS – CROSS-LAGGED MODEL

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## RESULTS – CROSS-LAGGED MODEL



LIVES

 $X^{2}(518) = 2225.8***$ , CFI = .96, TLI = .95, RMSEA = .028 (.026 - .029)

#### **DISCUSSION**

- Self-efficacy and stress are clearly related
  - Self-efficacy buffers negative impact of stress on optimism
  - Self-efficacy decreases stress one year later
  - Stress decreases self-efficacy one year later
- Self-efficacy as resource: Yes but...
  - Only to a limited extent
  - Feedback loop: Self-efficacy decreases stress, but stress also decreases self-efficacy!



### **DISCUSSION - LIMITATIONS**

- Preliminary results
  - In-depth analysis of longitudinal relation between stress and selfefficacy
- Short- versus long-term effects
  - One year lag is very long → different short-term effects?
- Sample
  - Young adults in education → external validity?



# THANK YOU FOR YOUR TIME AND ATTENTION

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