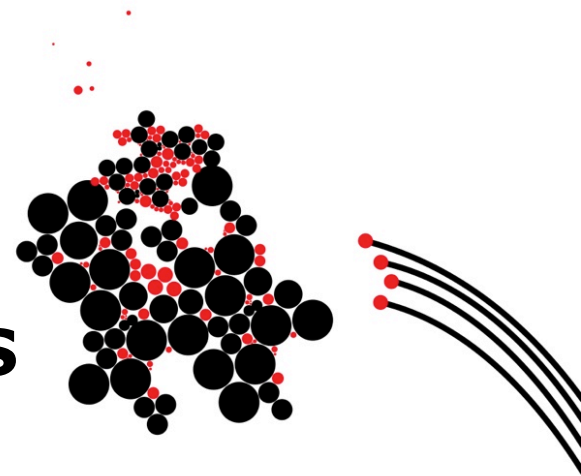# THE RECIPROCAL RELATION BETWEEN RISK FACTORS, SHORT-TERM MINDSETS AND DELINQUENCY
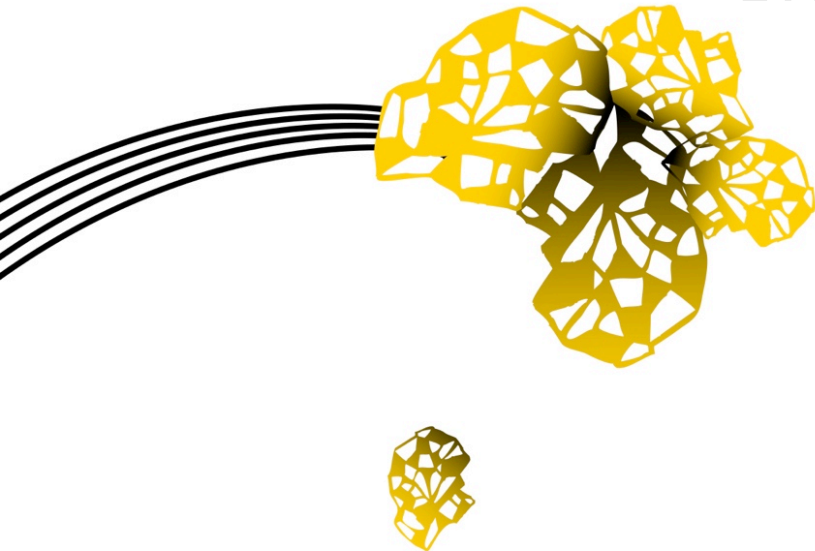
JEAN-LOUIS VAN GELDER

& IVY DEFOE

*Z-PROSO* RESEARCH WORKSHOP

27-10-2018

short-term mindsets and crime

- Impulsivity (Moffitt, 1993)
- **Self-control** (Gottfredson & Hirschi, 1990)
- Present-orientation (Nagin & Pogarsky, 2001, 2003)
- Delay of gratification (Mischel, 1989)
- Conscientiousness (Goldberg, 1990)
- Sensation-seeking (Zuckerman, 1979)
- Time perspective (Zimbardo & Boyd, 2008)
- Consideration of future consequences (Strathman et al., 1994)
- Etc.

Emerging evidence indicates self-control shows change over time

- Parenting beyond childhood impacts self-control (Burt et al., 2006; Hay, 2001), and impulsivity and future school orientation (Van Gelder, Averdijk, Ribeaud and Eisner, 2017)

- Other factors influence self-control:
  - peers (Meldrum et al., 2012),
  - religiousness (Pirutinsky, 2014),
  - delinquency (Clinkinbeard et al., 2017),
  - neighbhourhood disadvantage (Teasdale and Silver, 2009)
  - sanctioning (Van Gelder, Averdijk, Ribeaud and Eisner, 2018)

Time Frame Theory

Individual dispositions

short-term mindsets

Crime
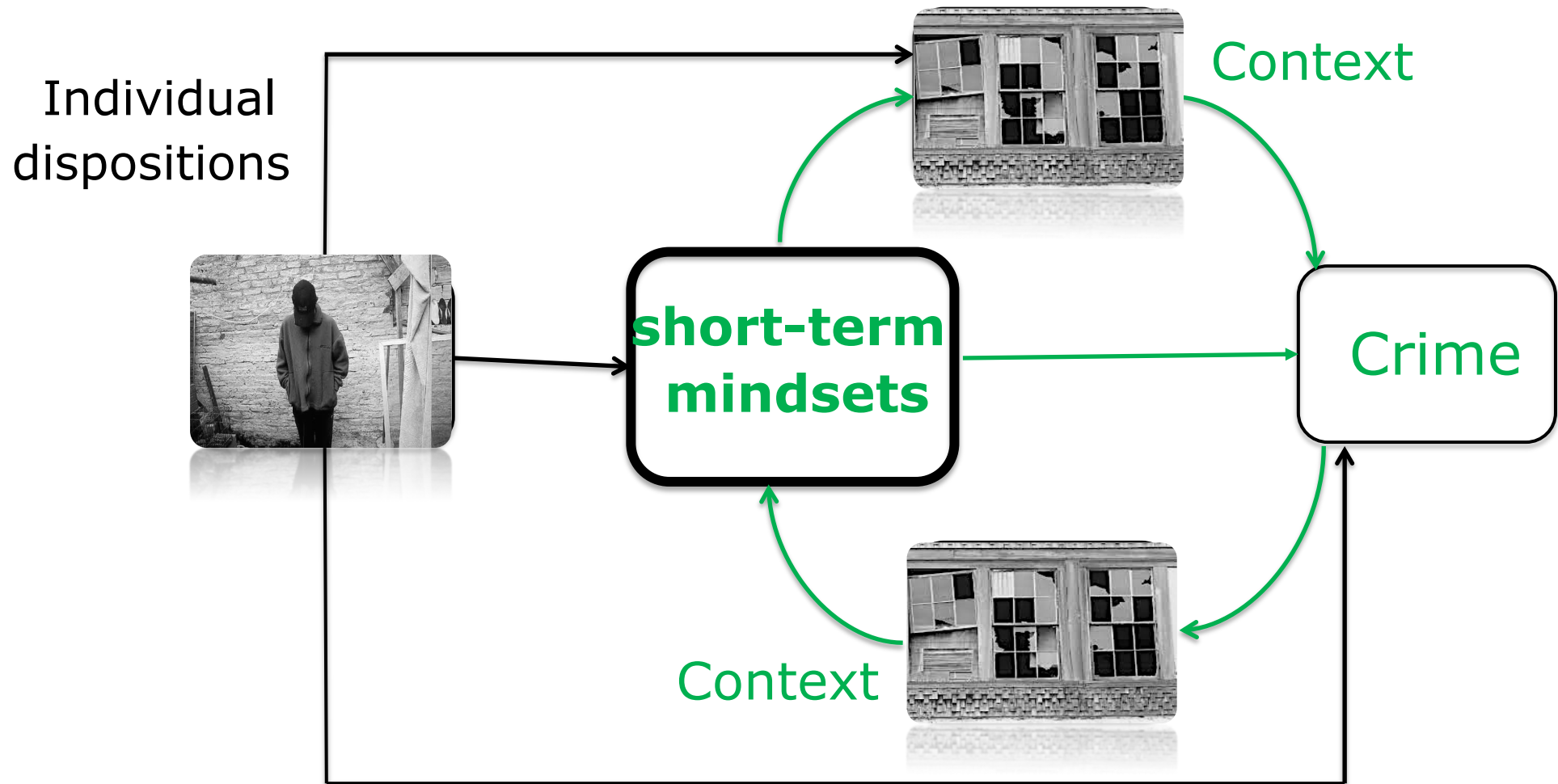
Context

Context

Short-term Mindsets, Contextual factors & Crime: Developmental and Reciprocal Relations
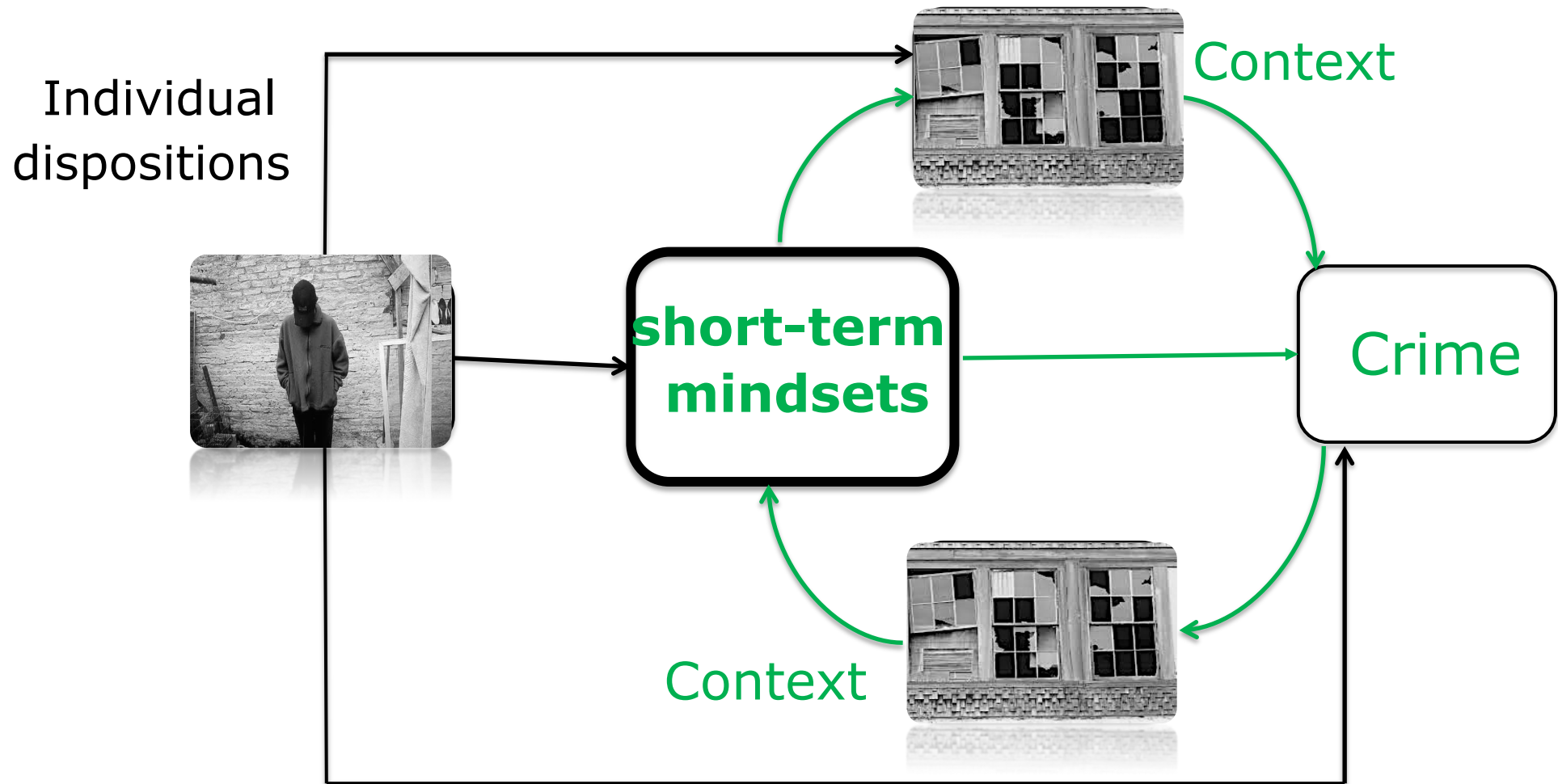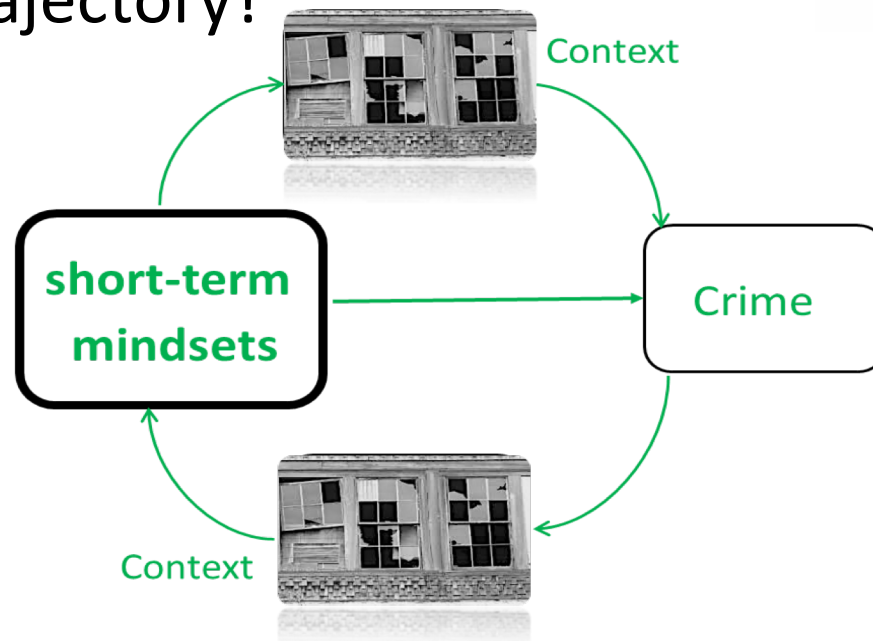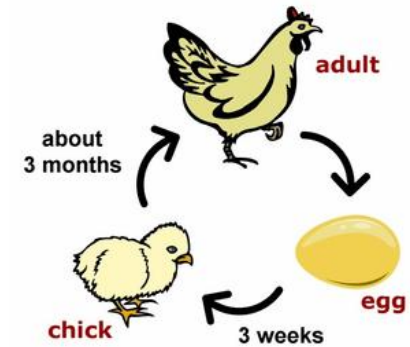
Developmental Patterns and Reciprocal Relations from Early to Late Adolescence

❖**Outline**

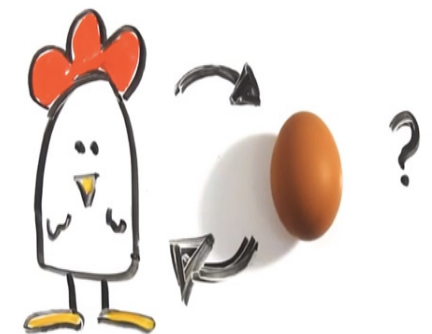**Part1:**

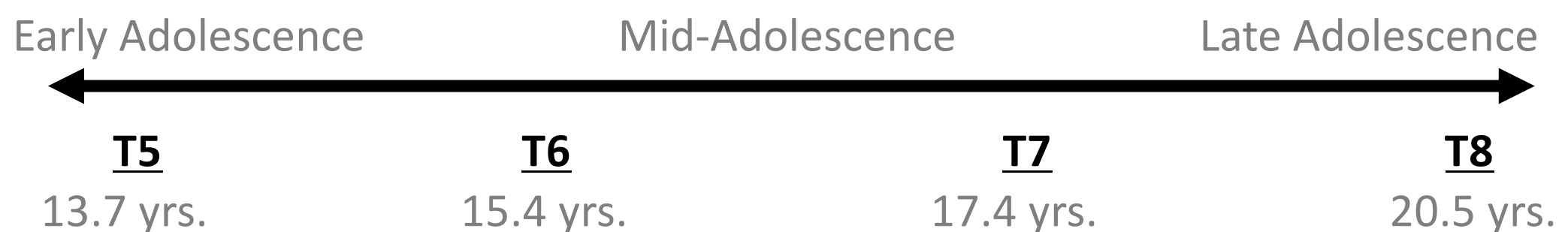**Developmental pattern:**

What is the growth trajectory?

Part 2:

Temporal order:

What is the *predictor* and what is the *outcome*?

What came first?
The chicken or the egg?

short-term mindsets

Context

Crime

Context

PART 1:
The developmental pattern

Early Adolescence	Mid-Adolescence	Late Adolescence

T5
13.7 yrs.

T6
15.4 yrs.

T7
17.4 yrs.

T8
20.5 yrs.
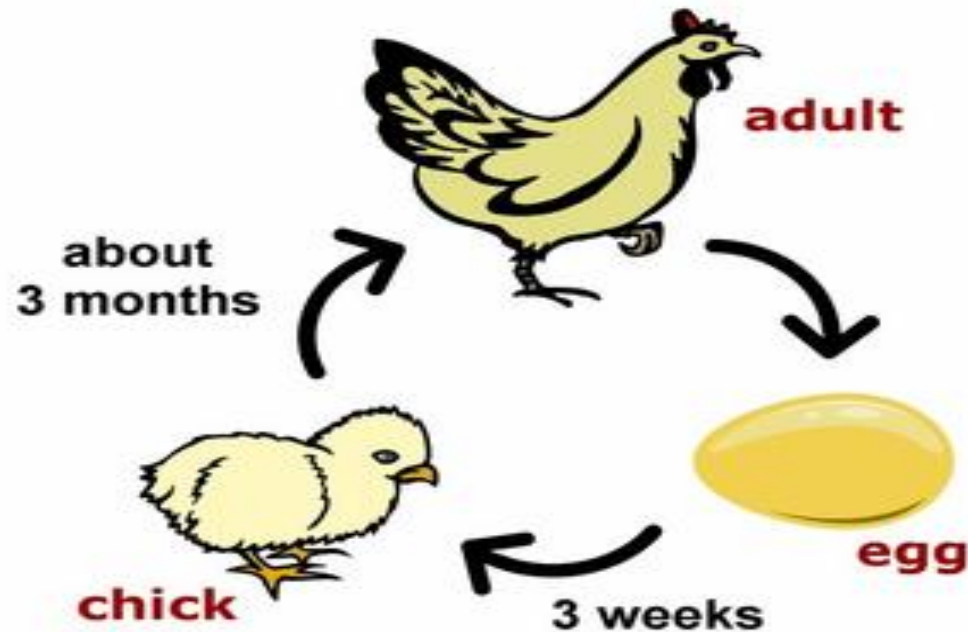
Developmental Patterns across Adolescence

Early Adolescence   Mid-Adolescence   Late Adolescence

T5   **T6**   **T7**   **T8**

13.7 yrs.   15.4 yrs.   17.4 yrs.   20.5 yrs.

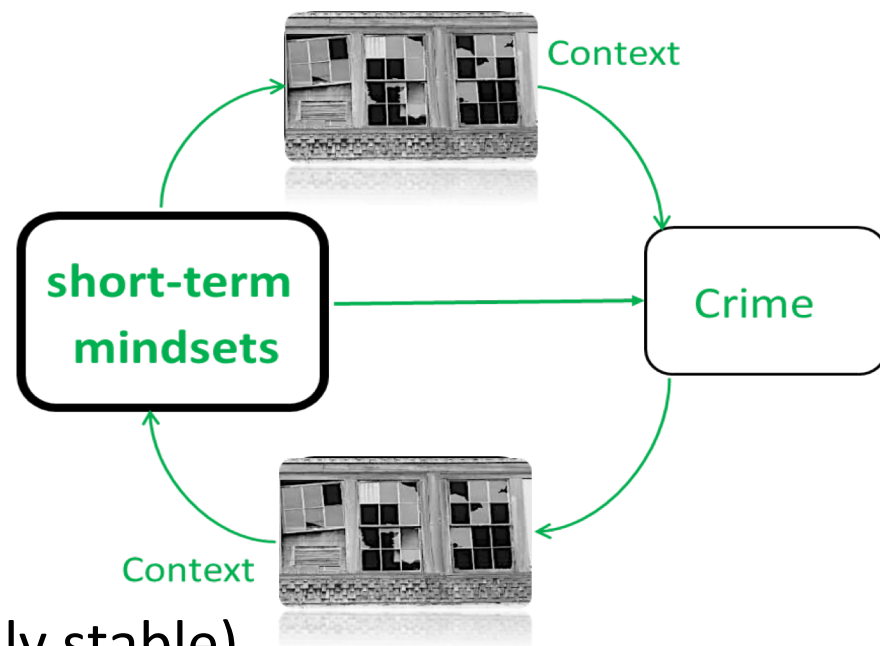❖ ***Variables of interest:***

Short-term mindsets:

- Self-control

- School future orientation

Contextual factors:

- Adolescent alcohol & cannabis use

- Best friends' drug use & criminal behavior

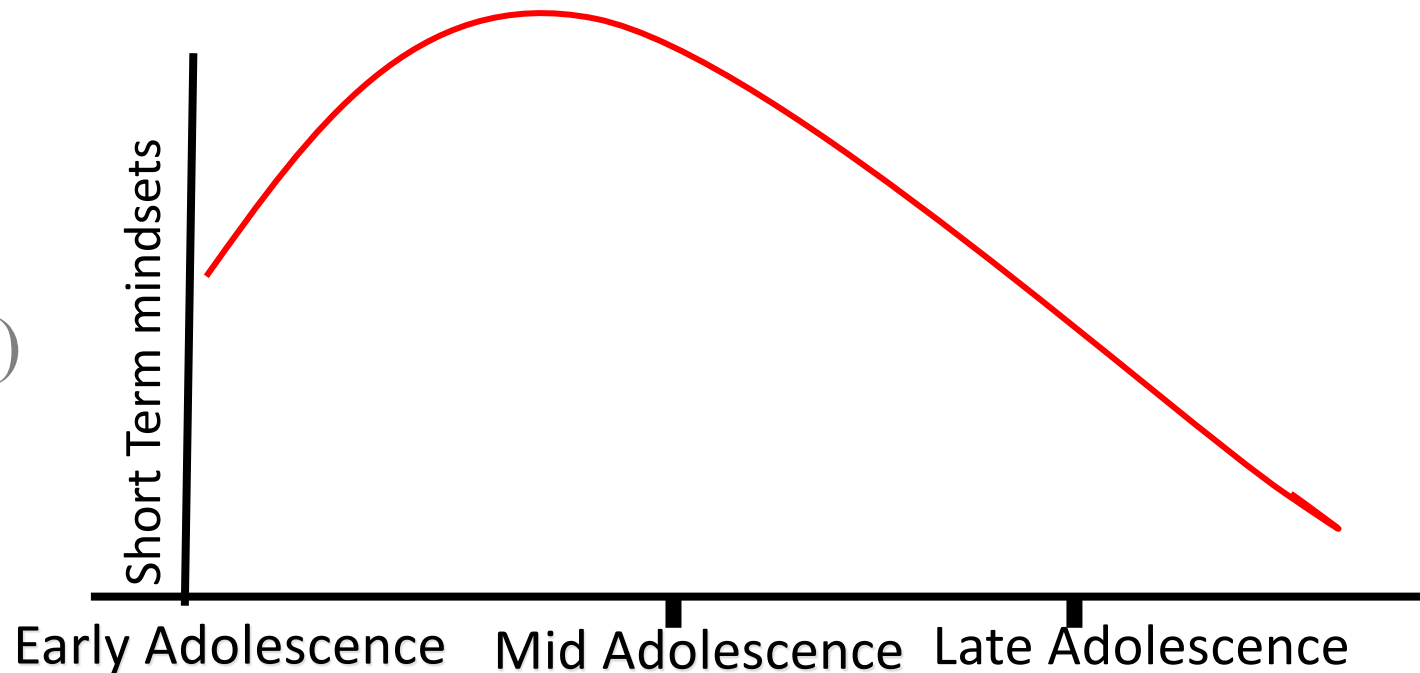- SES and neighborhood characteristics (highly stable)

Antisocial behavior/ Rule-breaking:

- Self-reported property crimes and violent crimes

- Police contact and school sanctions

How do behaviors and contextual factors of individuals change over time?

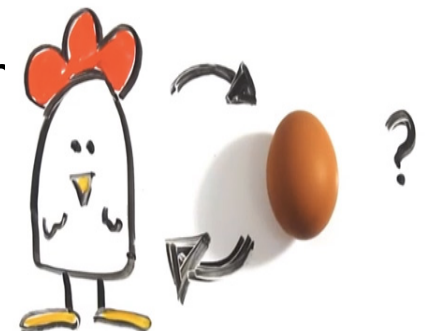**Latent Growth Modelling (LGM)**

1. How does an individual's STM change over the course of adolescence?
2. Does everyone have the same initial level (intercept) of STM at the beginning of adolescence?
3. Does everyone's STM's develop (slope) at the same rate in adolescence?
4. What are the predictors of significant *variance*? →

Relations between Different Developmental Trajectories

- Are developmental changes in variable X related to developmental changes in variable Y?
  - E.g.: *Are developmental changes in short-term mindsets related to developmental changes in crime?*
  - **Methodology**: Parallel process (multivariate) growth curve modeling
  - **Hypotheses:**
    - Short-term mindsets indicators and crime peak in mid-adolescence (e.g., Shulman et al., 2016; Farrington 1986). →
    - Increases/decreases in short-term mindsets and crime are related to each other.
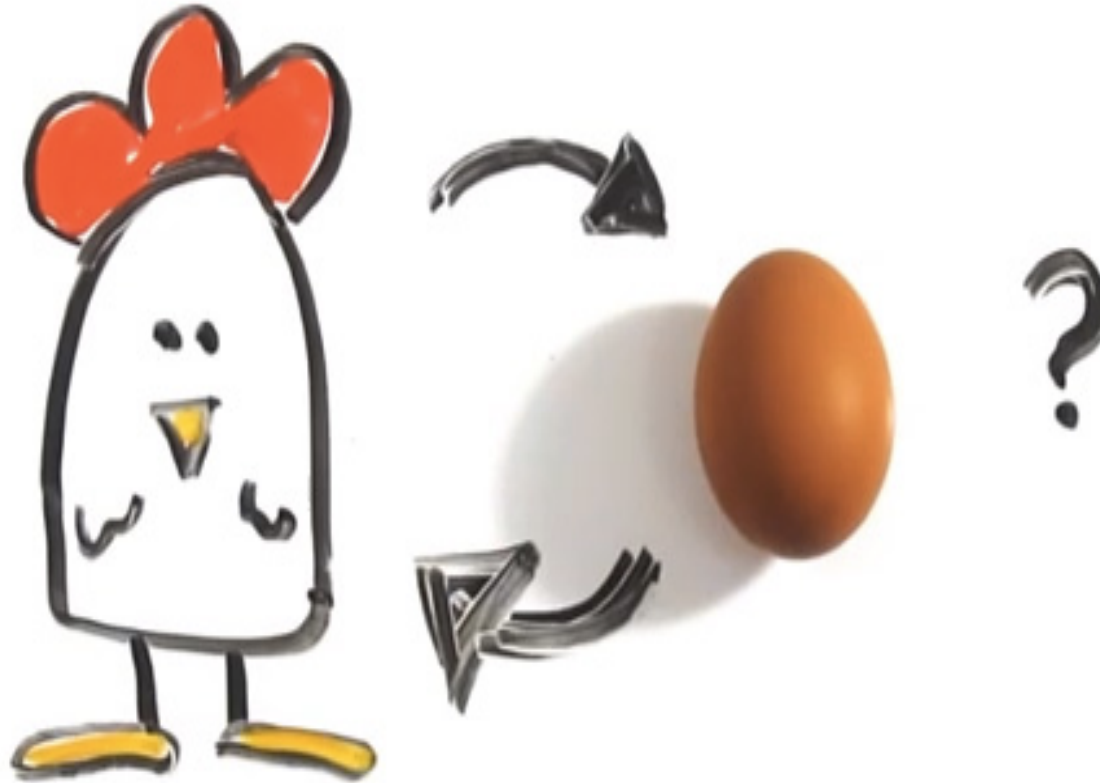
- **Issue:**
  Parallel process growth curve models do *not* disentangle predictor vs. outcome (uni-directional relation) and/or wh reciprocal (bi-directional) relations are present.
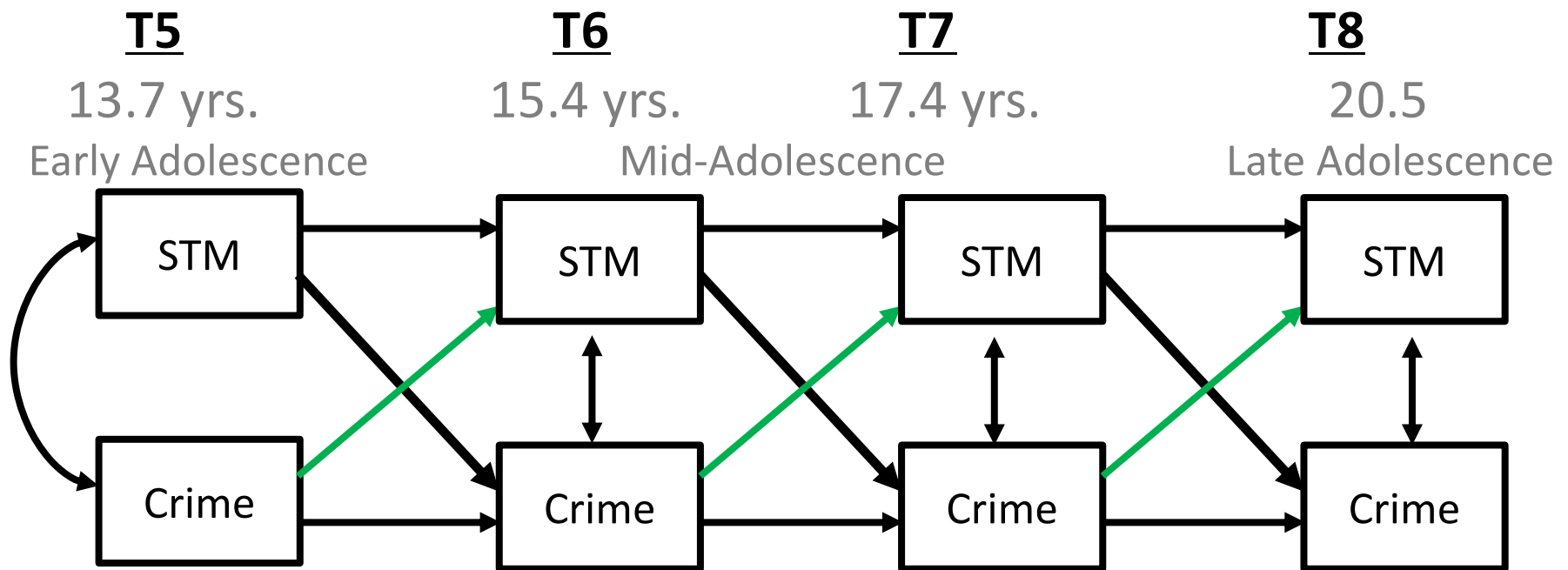   - *E.g.: Do short term mindsets predict crime?*
    - *or vice versa? Or both?*

PART 2: Temporal order?

- What came first..

Cross-lagged Panel Models

	T5	**T6**	**T7**	**T8**
	13.7 yrs.	15.4 yrs.	17.4 yrs.	20.5
	Early Adolescence	Mid-Adolescence		Late Adolescence

- **Controls:**
  - Reversed effects
  - Within-wave associations
  - Stability effects

- **Limitation:** Confounds *between*-person and *within*-person associations
  - **Solution:** *Random Intercept* **Cross-lagged Model** (Hamaker et al., 2015)
    - Isolates within-person associations

Between-Person versus Within-Person Associations

- **(Standard/Traditional) Cross-lagged Panel Model:**

E.g.: Adolescents who engage in more criminal behavior (than others) show higher levels of STM (than others) in the following wave. *(between-person association)*
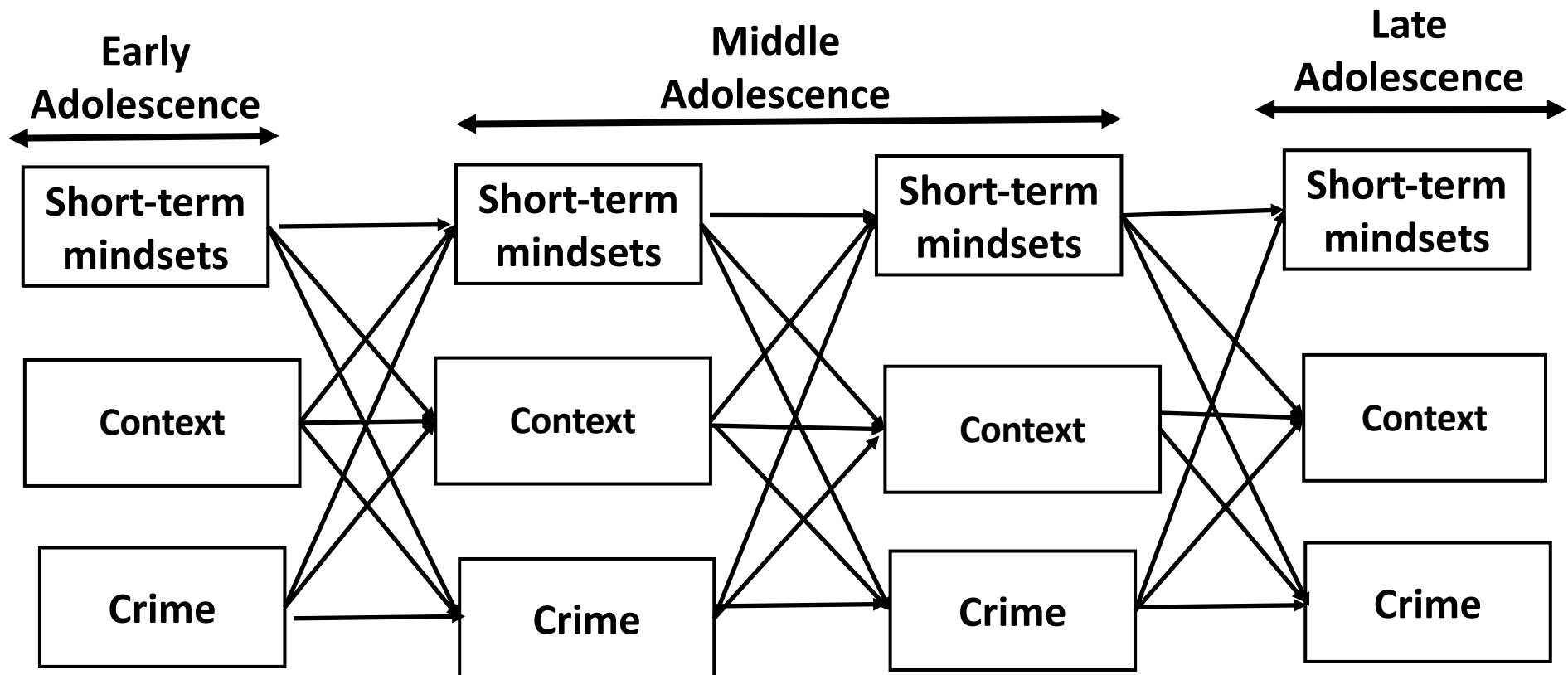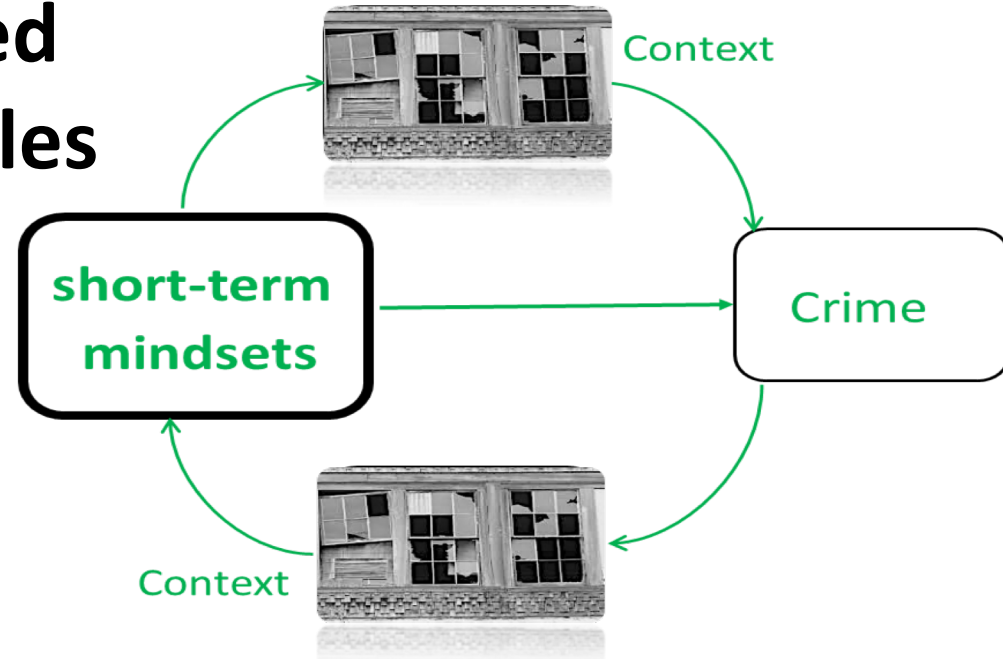
- **Random Intercept Cross-lagged Panel Model:**

E.g.: Adolescents with increasing levels of criminal behavior show increasing levels of STM's in the following wave. *(within-person association)*
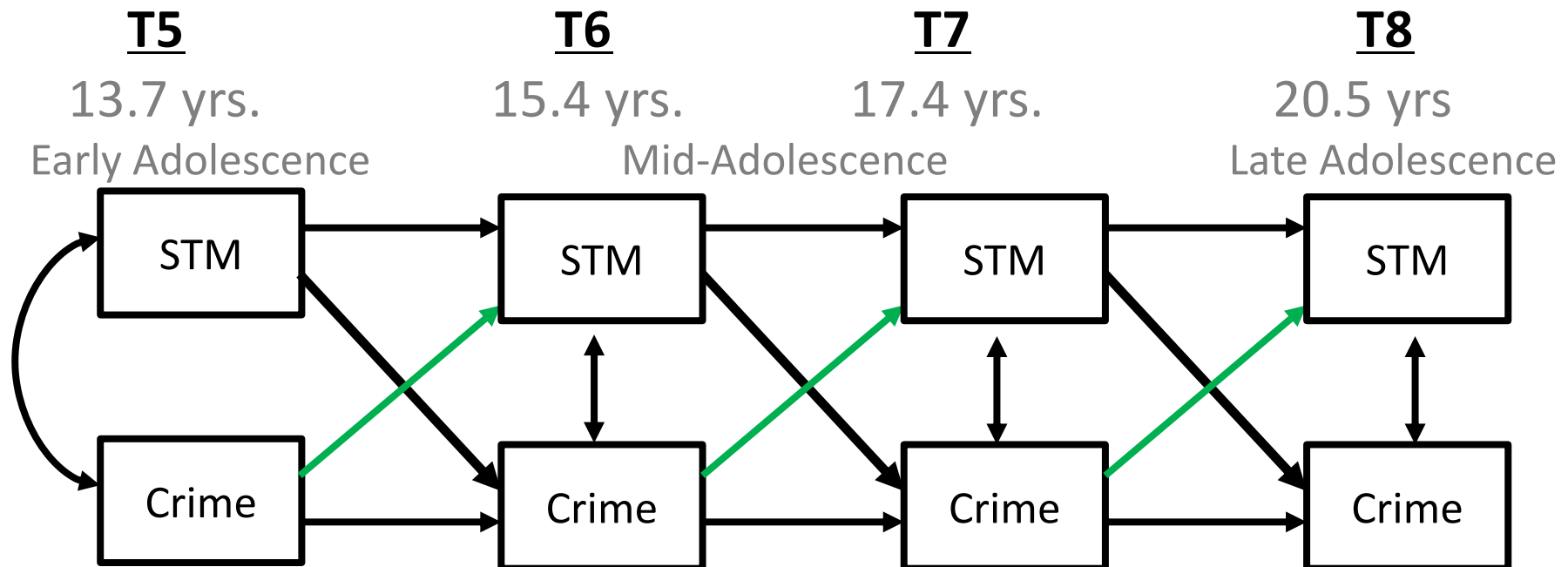
Extension of the Cross-Lagged Panel Model with > 2 Variables

THANK YOU!

European Research Council

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CRIMETIME