

A longitudinal investigation of the dual systems model of adolescent risk-taking: Evaluating the effect of affiliating with high risk-taking peers

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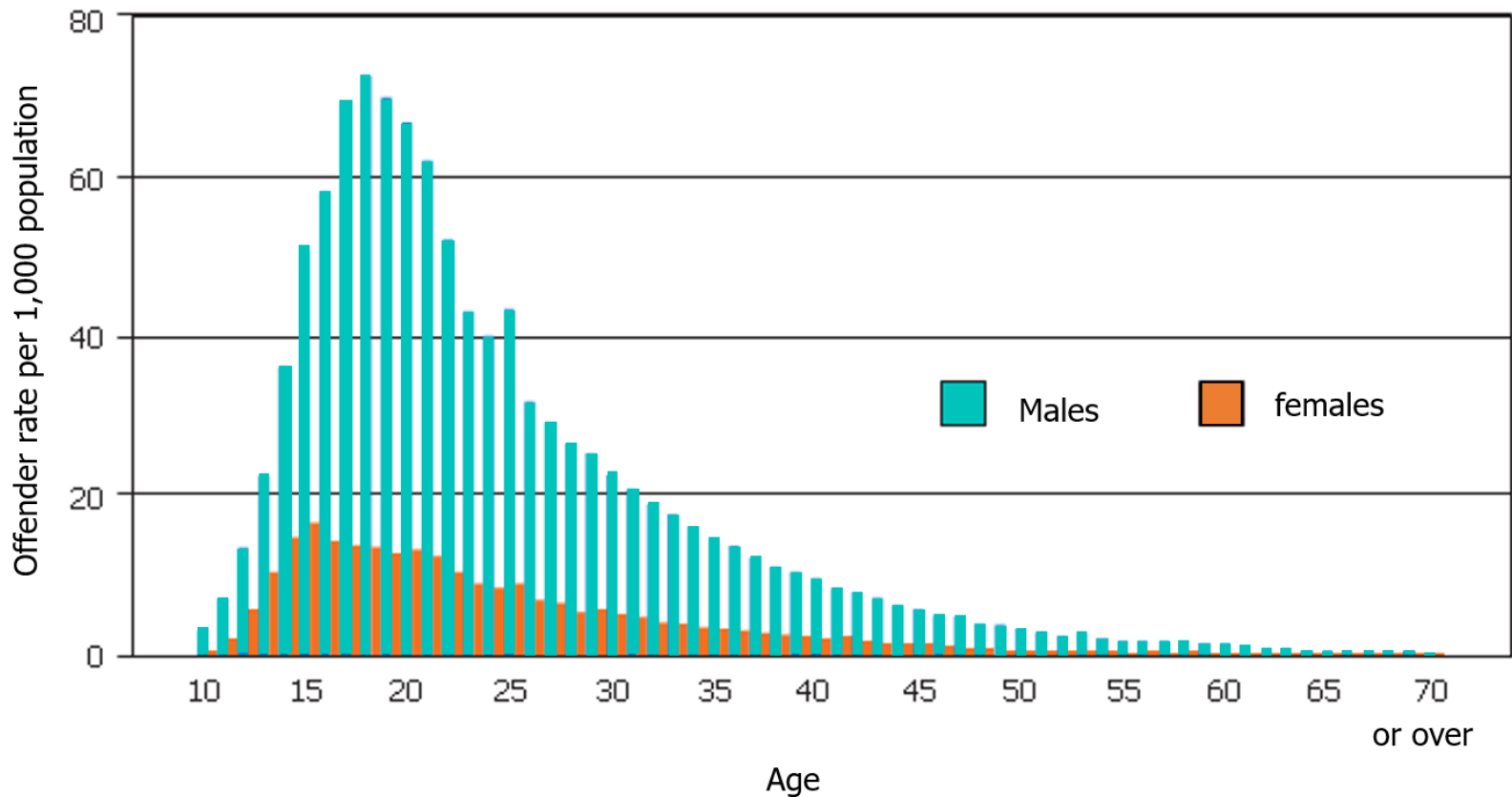
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Z-proso 

The Zurich Project on the Social Development
from Childhood to Adulthood

Age-Crime Curve

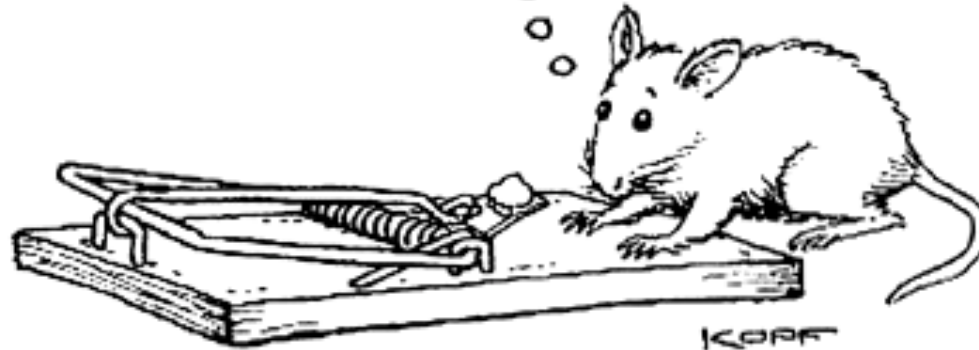
Figure 1: Age-Crime Curve for England and Wales in 2000



The Risky Adolescent Mouse

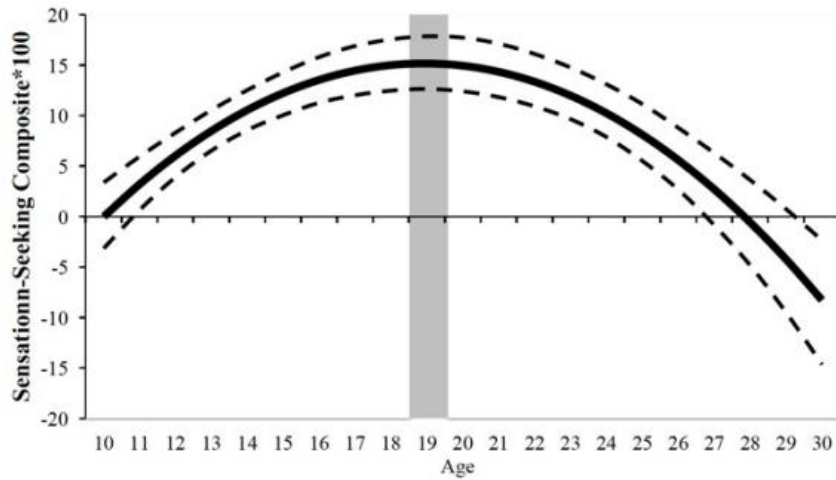
TEEN-AGE MOUSE

I CAN TOTALLY
GET AWAY
WITH THIS !

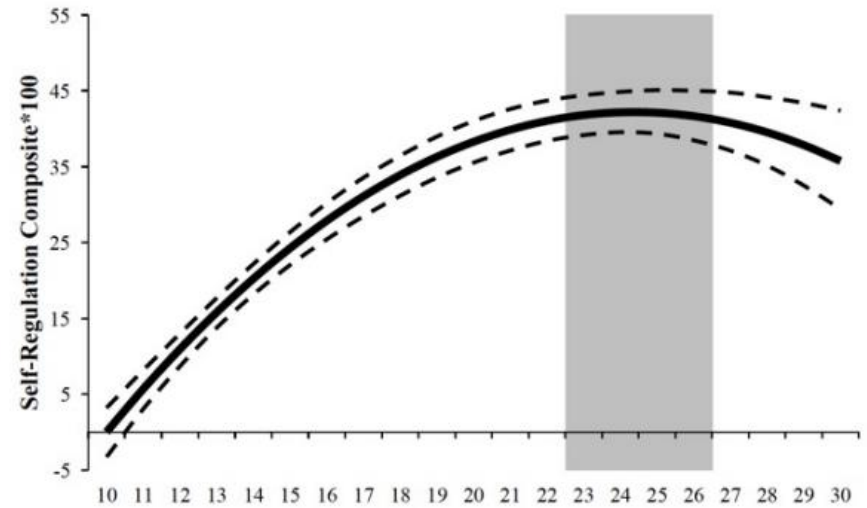


Dual Systems Model

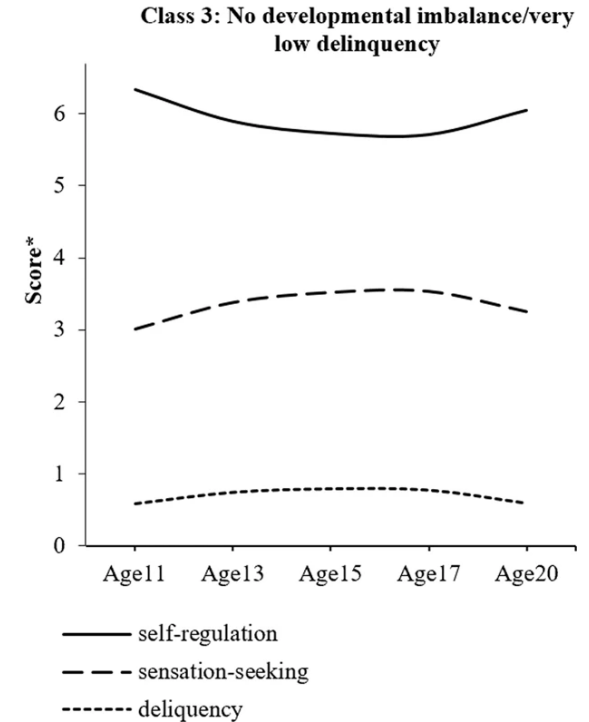
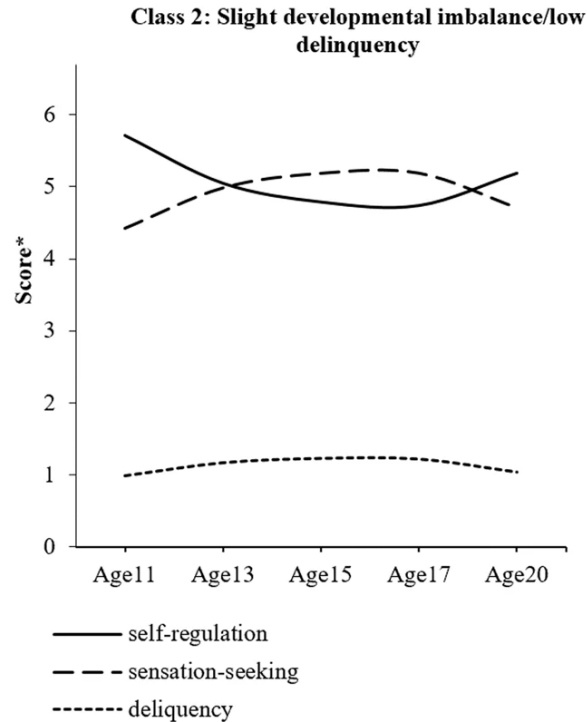
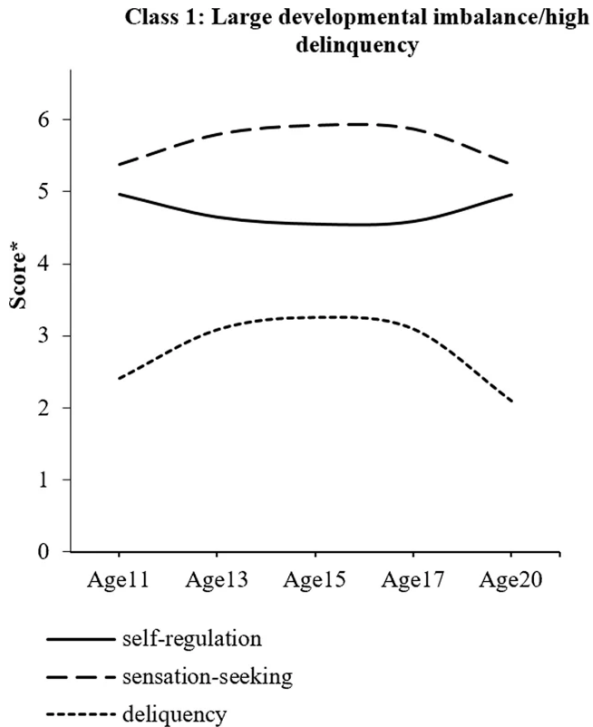
Sensation-seeking



Self-regulation

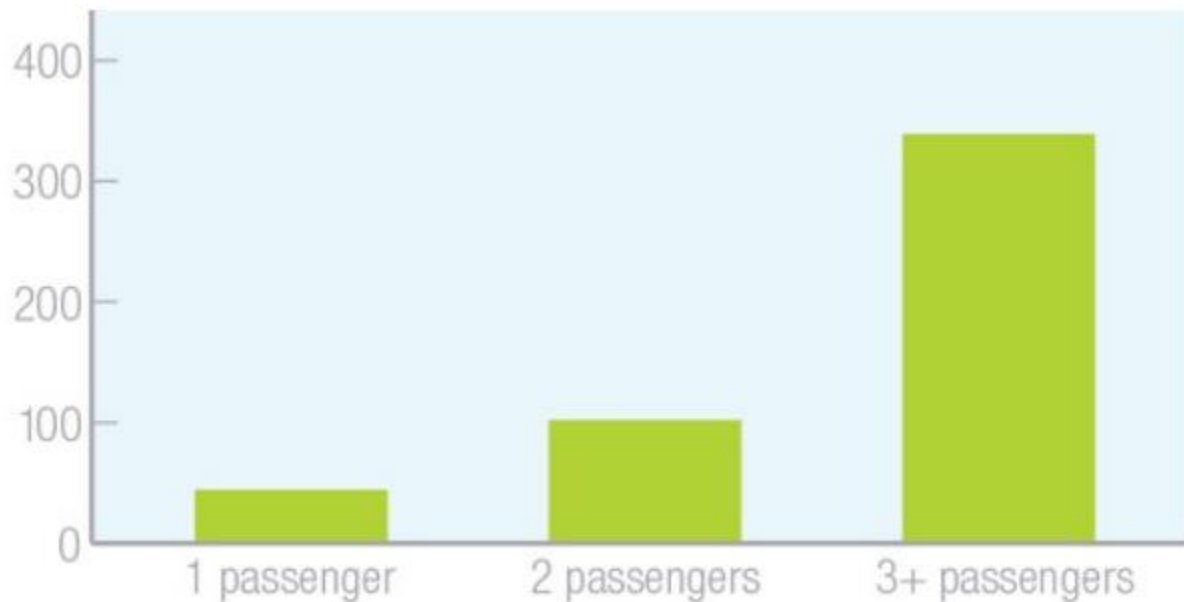


Dual Systems Model of Adolescent Delinquency



Adolescent Risk-Taking

Leading cause of mortality in adolescents is accidents:
Increased risk when with friends



Increase in death risk for driving with passengers compared to driving alone
(under 21 years)

Social Risk-Avoidance

Adolescents tend to avoid social risks over other risks



Does **affiliating with high risk-taking peers** contribute to the associations between **delinquency** and a **developmental imbalance between sensation-seeking and self-regulation?**



Participants

- 1522 adolescents taking part in the Zurich Project on the Social Development from Childhood to Adulthood (z-proso)
- Data collected during adolescence: ages 11, 13, 15, 17 and 20
- 784 male, 738 female



Measures

- **Dual Systems Components**
 - Adapted version of the Grasmick's self-control scale
 - Sensation-Seeking: 2-item risk-seeking subscale
 - Self-Regulation: 2-item impulse-control subscale
- **Delinquent Behaviours**
 - 7-items on illegal behaviours such as 'shoplifting', 'vandalism' and 'assault'
- **Affiliations with Risk-Taking Peers**
 - 6-items on whether two best friends participated in behaviours such as 'hitting someone', 'shoplifting' and 'drinking alcohol'

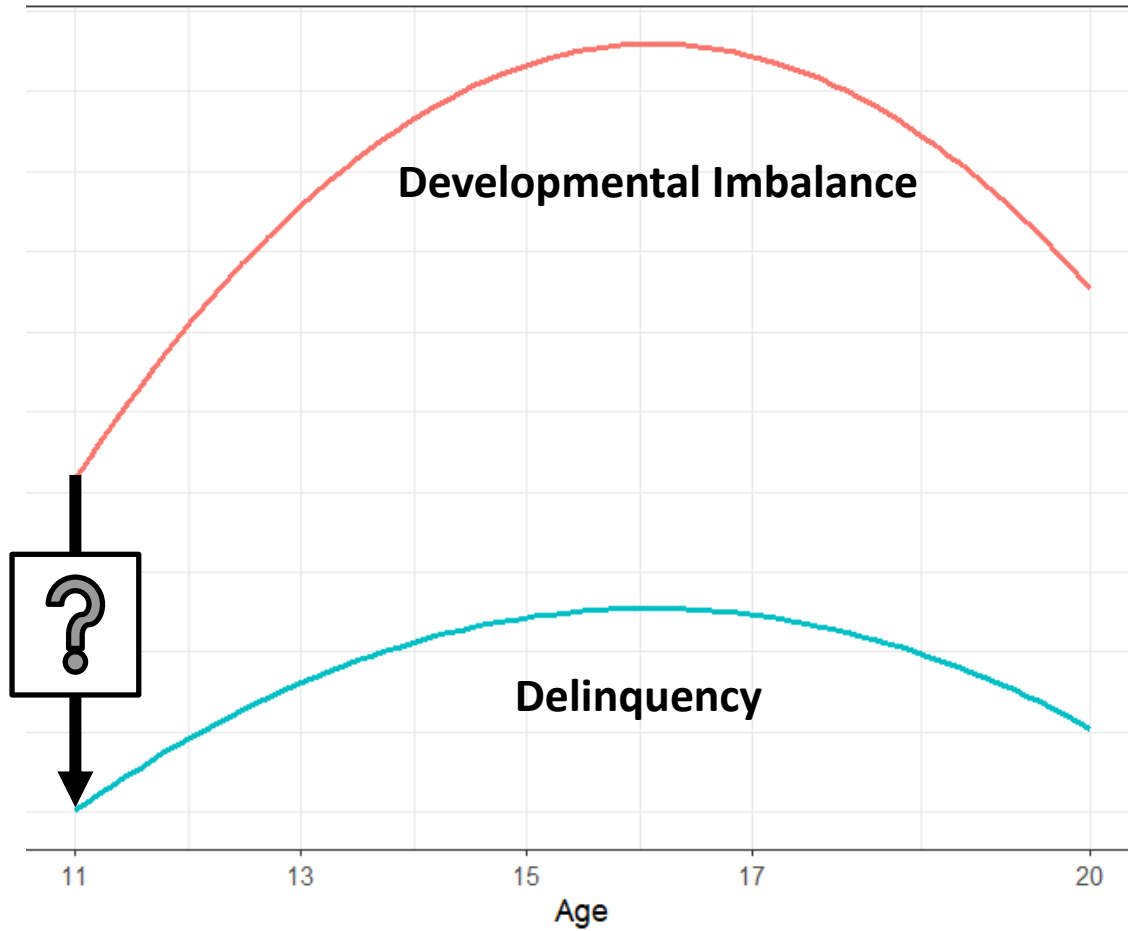
Method

- Latent Growth Curve Model
 - Model trajectories of sensation-seeking, self-regulation and delinquency
- Latent Difference Score Model
 - Model differences between sensation-seeking and self-regulation
- Latent Difference Score Growth Curve Model
 - Model trajectory of differences between sensation-seeking and self-regulation
 - Test moderation effect of affiliating with high-risk taking peers

Hypotheses

- **H1:** Greater imbalances between sensation-seeking and self-regulation are associated with higher levels of delinquent behaviours at the beginning of adolescence

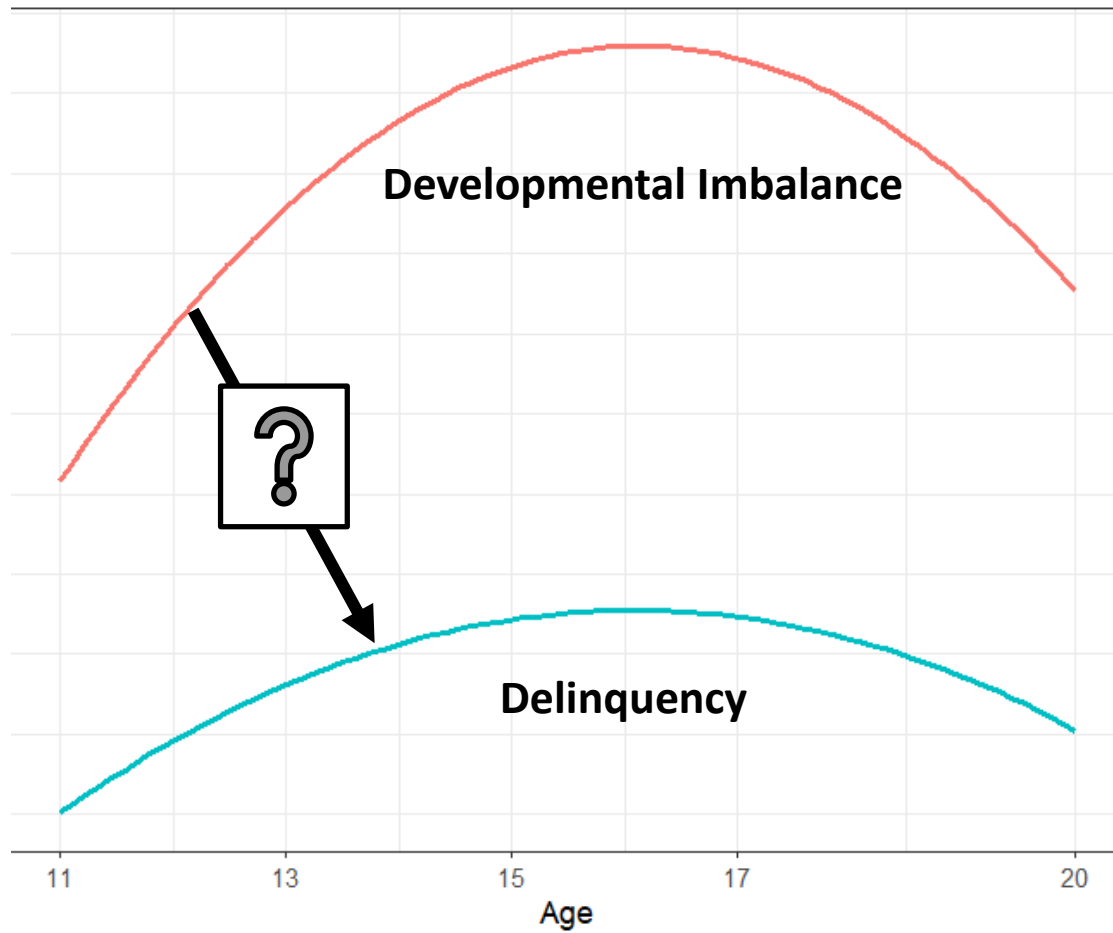
Hypothesis 1



Hypotheses

- **H1:** Greater imbalances between sensation-seeking and self-regulation are associated with higher levels of delinquent behaviours at the beginning of adolescence
- **H2:** Steeper increases in imbalances are associated with steeper increases in delinquent behaviours until mid-adolescence

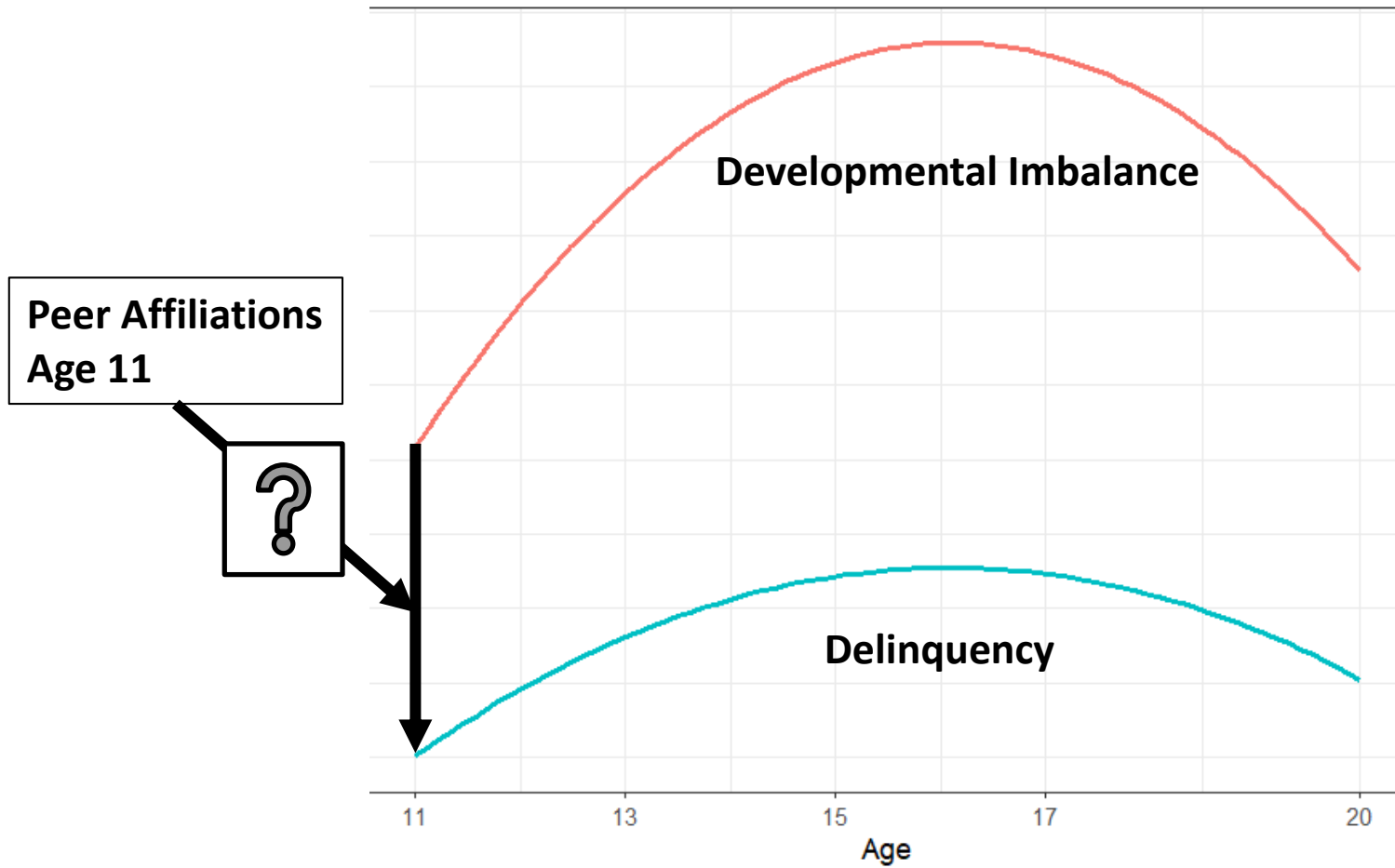
Hypothesis 2



Hypotheses

- **H1:** Greater imbalances between sensation-seeking and self-regulation are associated with higher levels of delinquent behaviours at the beginning of adolescence
- **H2:** Steeper increases in imbalances are associated with steeper increases in delinquent behaviours until mid-adolescence
- **H3:** Affiliating with high risk-taking peers increases the strength of the associations between developmental imbalances and delinquent behaviours at the beginning of adolescence

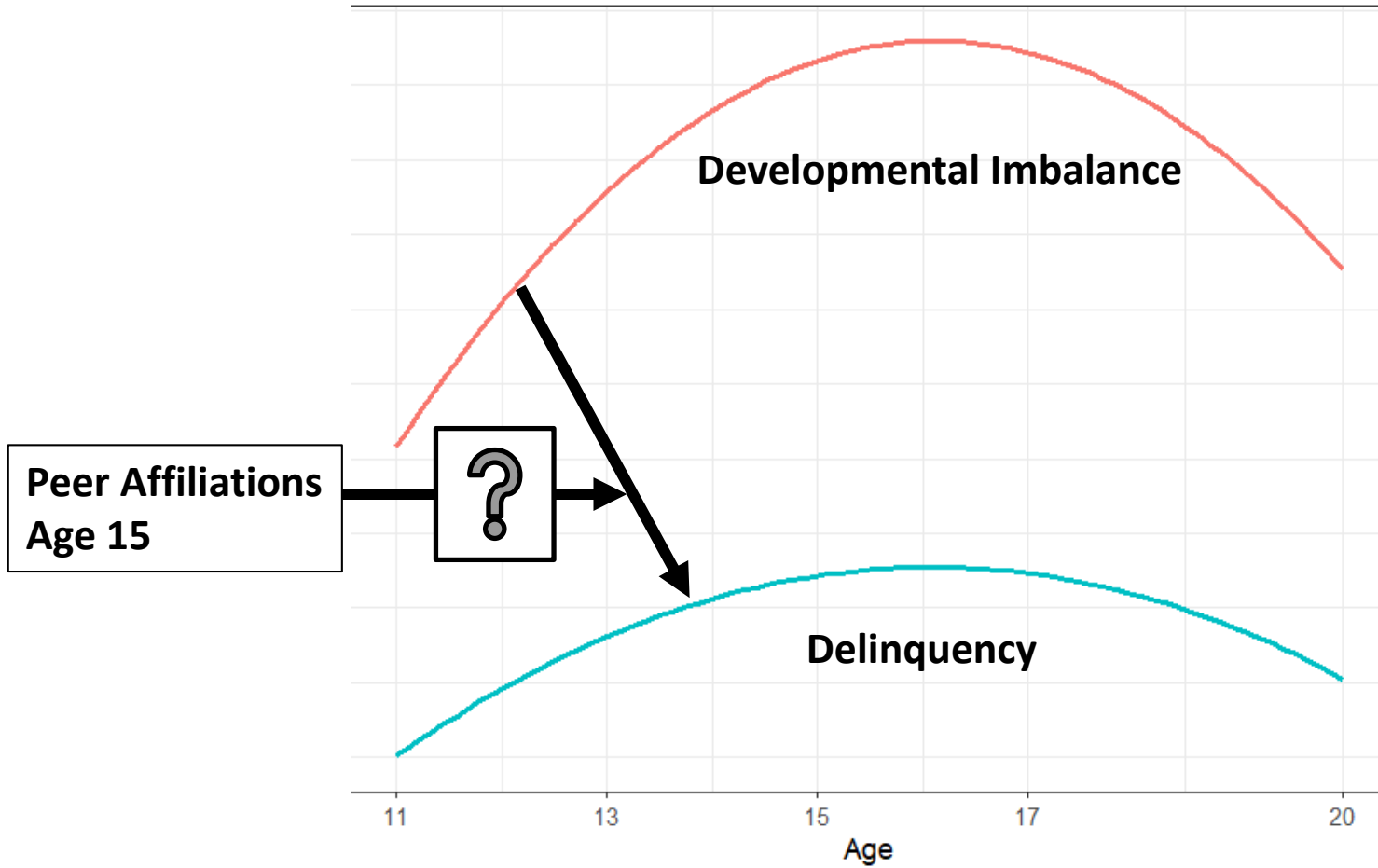
Hypothesis 3



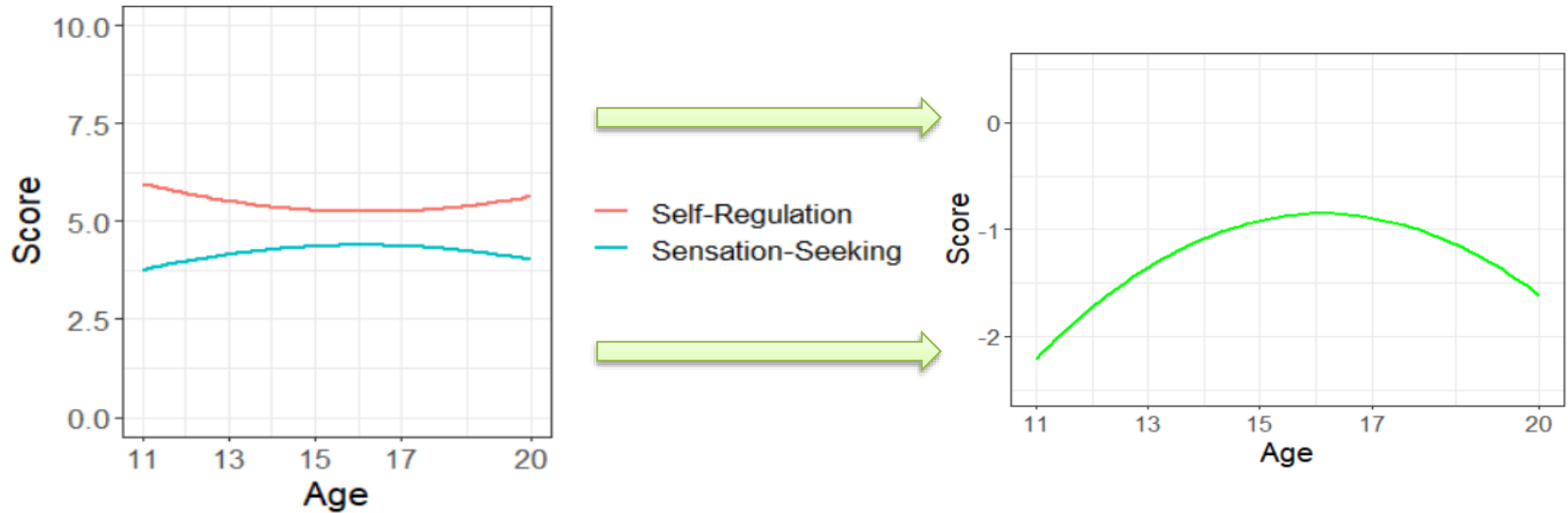
Hypotheses

- **H1:** Greater imbalances between sensation-seeking and self-regulation are associated with higher levels of delinquent behaviours at the beginning of adolescence
- **H2:** Steeper increases in imbalances are associated with steeper increases in delinquent behaviours until mid-adolescence
- **H3:** Affiliating with high risk-taking peers increases the strength of the associations between developmental imbalances and delinquent behaviours at the beginning of adolescence
- **H4:** Affiliating with high risk-taking peers increases the strength of the associations between increases in imbalances and increases in delinquent behaviours across adolescence

Hypothesis 4

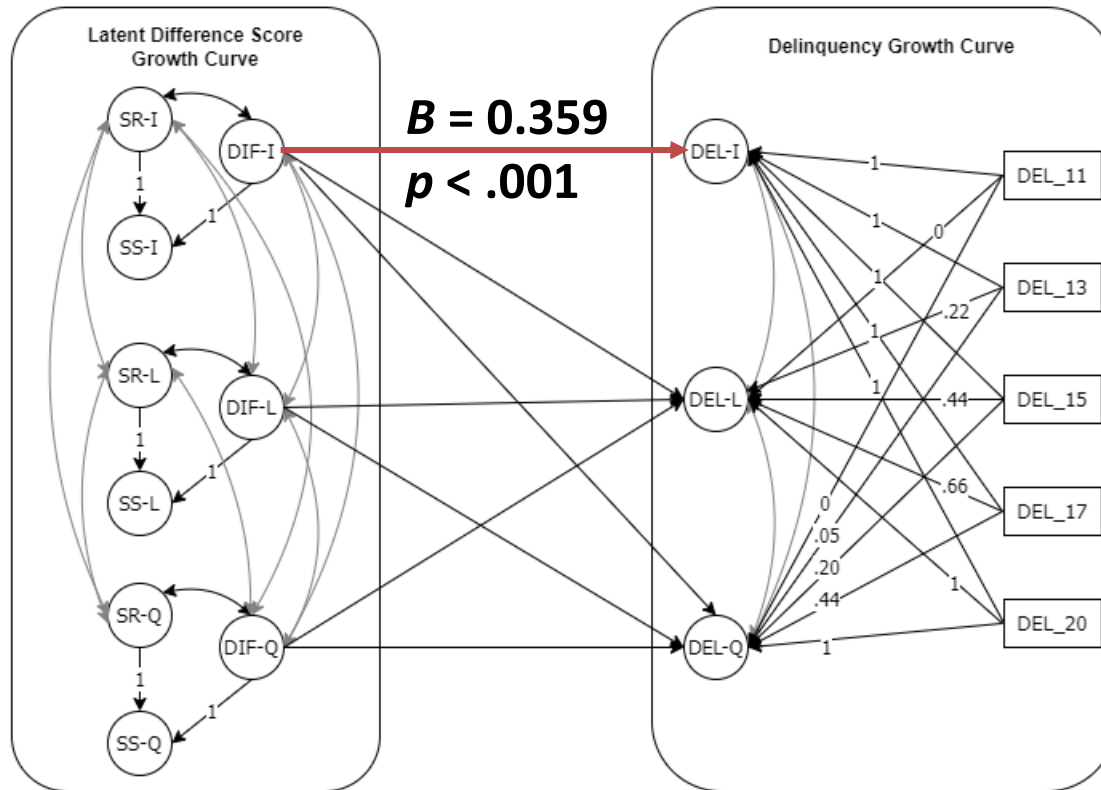


Latent Difference Score Growth Curve



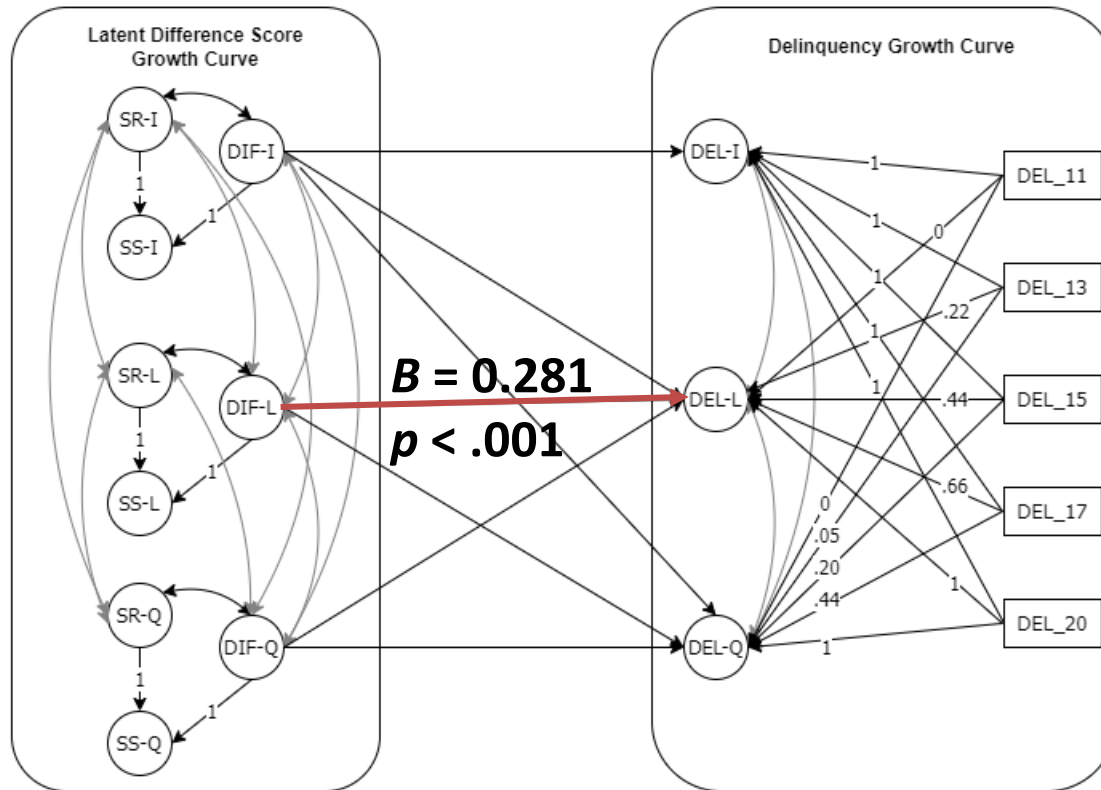
Sensation-seeking was highest relative to self-regulation (or equivalently, low impulse control) during mid-adolescence

Hypothesis 1: Supported



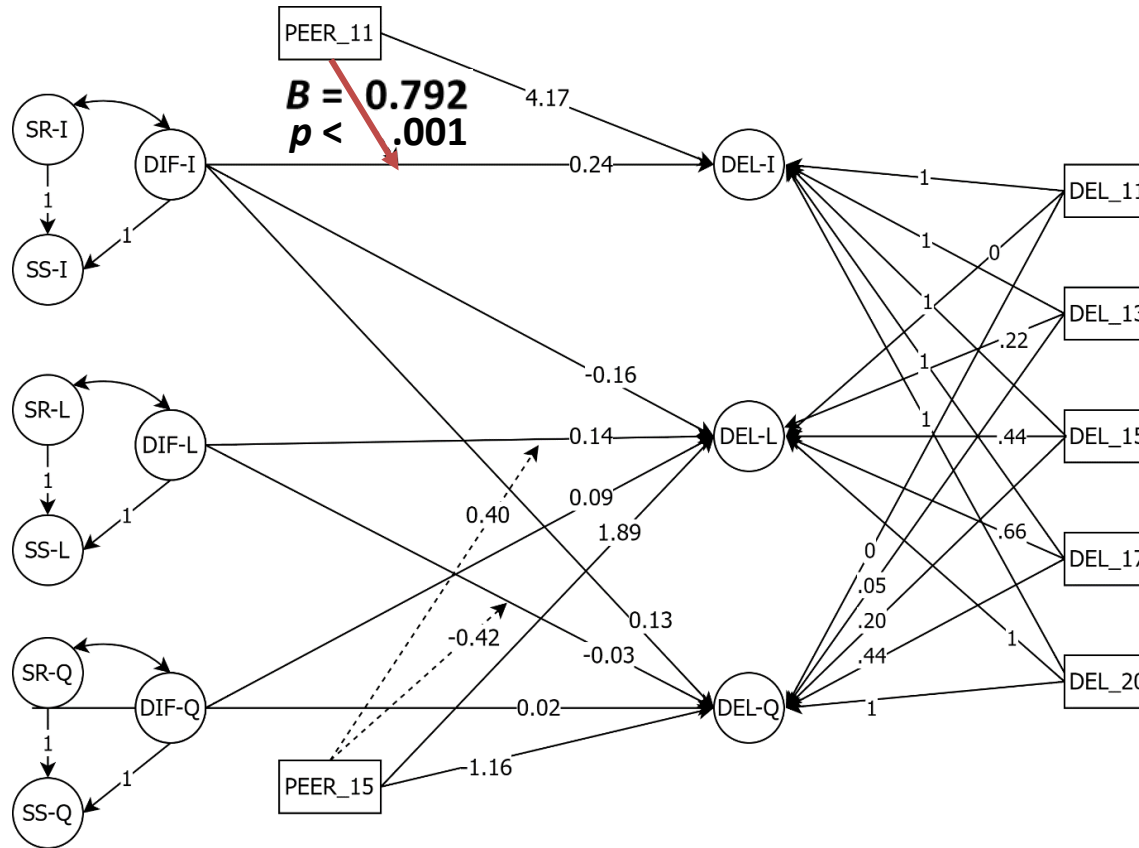
- Greater imbalances between sensation-seeking and self-regulation were associated with higher levels of delinquent behaviours at age 11

Hypothesis 2: Supported



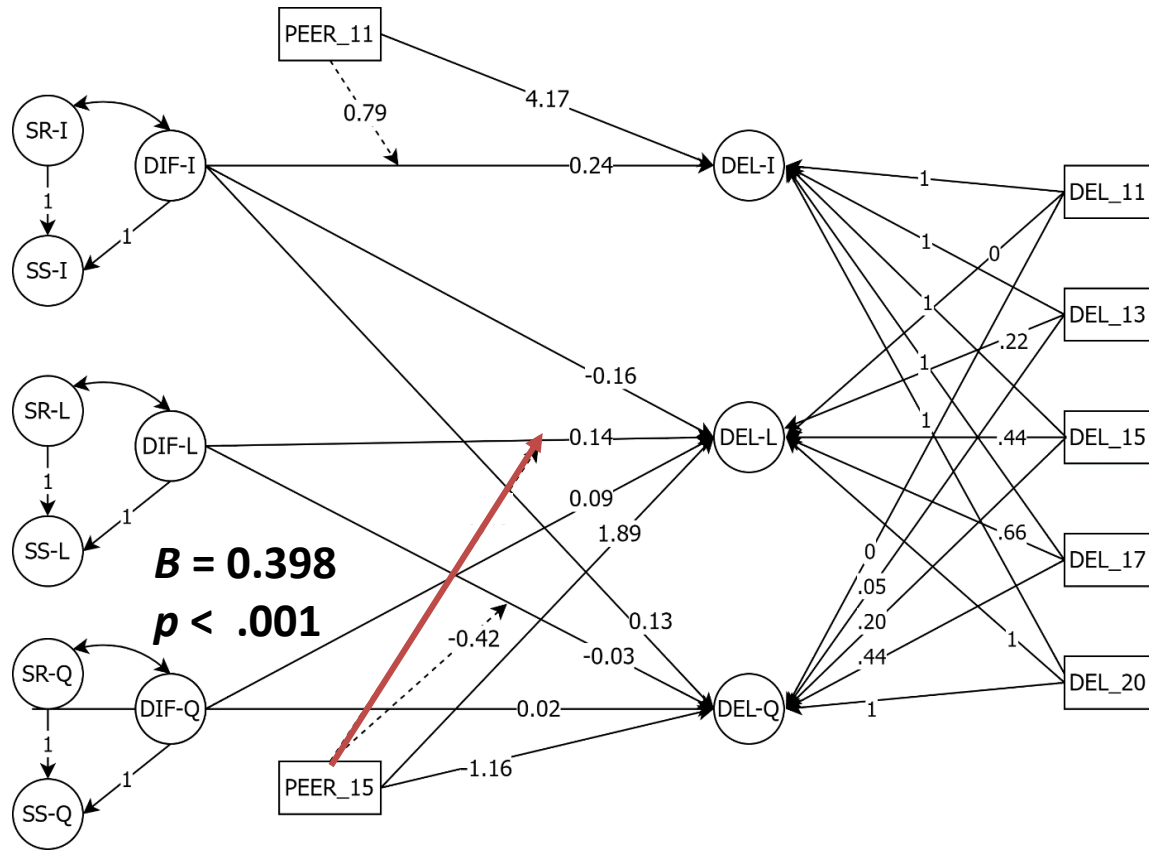
- A steeper linear increase in developmental imbalances was associated with a steeper linear increase in delinquent behaviours during mid-adolescence

Hypothesis 3: Supported



- **Affiliating with high risk-taking peers increased the strength of the associations between developmental imbalances and delinquent behaviours at age 11**

Hypothesis 4: Supported



- **Affiliating with high risk-taking peers at age 15 increased the strength of the associations between increases in imbalances between sensation-seeking and self-regulation and increases in delinquent behaviours across mid-adolescence**

Implications

- Spending time with high risk-taking peers amplifies adolescents' propensity to take risks during the stage of developmental imbalances between sensation-seeking and self-regulation.
- Important to consider the interactions between intrapersonal factors and contextual factors in the pathways leading to adolescent risk-taking behaviours.
- Social influence is an important factor to consider when evaluating dual systems theories of adolescent risk-taking
- Potential for preventative actions encouraging positive peer environments and promoting self-awareness?

Questions?



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