DEVELOPMENTAL ENVIRONMENTS, COGNITIONS, AND SOCIAL COMPARISON REACTIONS: THE IMPACT OF CHILDHOOD EXPERIENCES ON THOUGHTS AND BELIEFS

University of Regina

Amanda Wuth[1], Sandeep Mishra[2], Shadi Beshai[1], & Justin Feeney[2]

RGBLAB RISK AND GAMBLING BEHAVIOR LABORATORY

BACKGROUND

- According to life history theory, energy resources are differentially allocated to maximize survival within a specific environment[3,4]
- Poor developmental environments promote fast life history strategies[5]
- Fast life history strategies have been proposed to promote dysfunctional behaviors and psychopathologies [6, 7, 8]
- Early maladaptive schemas are fixed dysfunctional cognitions maintained over the lifespan[9]
- Many dysfunctional cognitions involve perceptual distortions of one's self relative to others
- The absence of positive schemas is associated with psychopathologies[10]
- Positive schemas may protect against dysfunctional cognitions

(1) Are social comparison reactions associated with developmental environments and dysfunctional cognitions?
(2) Do schemas explain unique variance in cognitive distortions and socioemotional comparisons?
(3) Are these variables causally linked?

METHODS

Participants

- Participants were 140 M, 105 F (age: *M* = 38.7, *SD* = 12.6), recruited from the crowdsourcing platform Turk Prime (*n* = 245)

Measures

Developmental Environments

- *Retrospective Family Unpredictability Scale (RFUS)*
- *Adverse Childhood Experiences (ACE)*
- *Mini K*: 20-item measure of behavioral and cognitive indicators of life history strategies

Cognitions

- *Young Schema Questionnaire S3 (YSQ)*: 90-item measure of maladaptive schemas
- *Positive Schema Questionnaire (PSQ)*
- *Cognitive Distortions Scale (CDS)*

Social Comparison Reactions

- *Socioemotional Comparisons Scale (SECS)*
- *Dispositional Envy Scale (DES)*

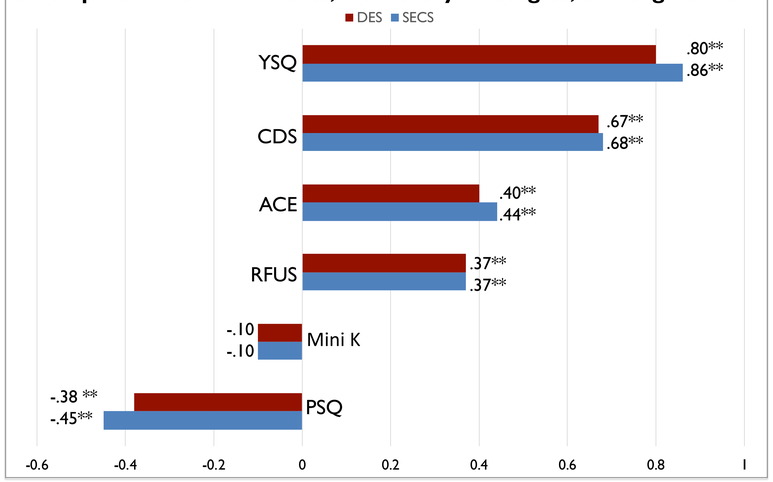
Structural Equation Modeling (Stata/IC 15.1 for Mac)

- Model estimation using *maximum likelihood with missing values*

CORRELATIONS

Socioemotional comparison reactions are moderately to strongly associated with developmental environments and cognitions, but not life history strategies.

Figure 1. Correlational Relationships Between SECS and DES, developmental environments, life history strategies, and cognitions.



** = $p < .01$. SECS = socioemotional comparison scale. DES = dispositional envy scale. YSQ = young schema questionnaire. CDS = cognitive distortions scale. ACE = adverse childhood experiences. RFUS = retrospective family unpredictability scale. Mini K = Mini K life history strategies. PSQ = positive schema questionnaire.

MULTIPLE REGRESSION

Developmental environments and maladaptive schemas explain a significant and large amount of variance in cognitive distortions.

Table 2. Predictive power of maladaptive schemas on CDS scores

	B	SE	*β*	*t*
Step 1 Demographics: $R^2 = .07$*				
Step 2 –Developmental Environments: $R^2 = .23$ $\Delta R^2 = .20$***				
RFUS	.40	.11	.23	3.47**
ACE	1.67	.39	.28	4.28***
Step 3 – Maladaptive Schemas: $R^2 = .53$ $\Delta R^2 = 30$***				
YSQ	.22	.02	.67	11.15***

* = $p < .05$, ** = $p < .01$, *** = $p < .001$. CDS = cognitive distortions scale. Demographics: age, sex, relationship status, education, personal income, household income. RFUS = retrospective family unpredictability scale. ACE = adverse childhood experiences. YSQ: young schema questionnaire.

MULTIPLE REGRESSION

Maladaptive schemas and cognitive distortions explain a significant and large amount of variance in social comparison reactions. Positive schemas also explain additional variance.

Table 3. Predictive power of positive and negative cognitions on SECS scores

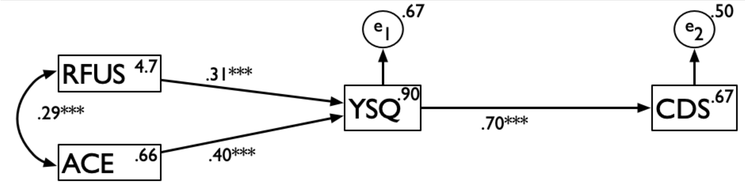
	B	SE	*β*	*t*
Step 1 Demographics: $R^2 = .07$*				
Step 2 –Dysfunctional Cognitions: $R^2 = .76$ $\Delta R^2 = .69$***				
YSQ	.14	.01	.74	15.81***
CDS	.09	.03	.16	3.43***
Step 3 – Positive Cognitions: $R^2 = .76$ $\Delta R^2 = .01$*				
PSQ	-.08	.03	-.10	-2.61*

* = $p < .05$, *** = $p < .001$; SECS = socioemotional comparison scale. Demographics: age, sex, relationship status, education, personal income, household income. YSQ = young schema questionnaire. CDS = cognitive distortions scale. PSQ = positive schema questionnaire.

PATH ANALYSIS

Poorer development environments predict propensity for maladaptive schemas and cognitive distortions.

Figure 2. Path analysis model of developmental environments on cognitive distortions



*** = $p < .001$. e = error. RFUS = retrospective family unpredictability scale. ACE = adverse childhood experiences. YSQ = young schema questionnaire. CDS = cognitive distortions scale.

Comparative fit index =1.00; root mean square error of approximation = .00; Akaike's information criterion =8294.33; coefficient of determination = .33; chi square = .03. *df* = 3. *n* = 245.

Socioemotional comparisons and maladaptive schemas may share an underlying factor. People who are exposed to harsh developmental environments are more likely to develop maladaptive schemas and cognitive distortions. Dysfunctional cognitions are powerful predictors of social comparison reactions.

AFFILIATIONS
1. Department of Psychology, University of Regina
2. Hill/Levene Schools of Business, University of Regina

REFERENCES AND NOTES
3. Kirkwood & Rose (1991) *Philosophical Transactions of the Royal Society B*
4. Stearns (1992) *The Evolution of Life Histories*
5. Ellis et al. (2012) *Developmental Psychology*
6. Del Giudice, Gangestad, & Kaplan (2015) *The Handbook of Evolutionary Psychology- Vol 1: Foundations*
7. Figueredo et al. (2006) *Developmental Review*
8. Del Giudice (2014) *Psychological Inquiry*
9. Young, Klosko, & Weishaar (2003). *Schema Therapy: A practitioner's guide.*
10. Keyfitz, Lumley, Hennig & Dozois (2013) *Cognitive Therapy and Research*

Hill | levene SCHOOLS OF BUSINESS