

Objectives

- 1 To explore the longitudinal relations of adolescents' ability to recognize or perceive negative emotions (social threat perception) and their mental self-representations.
- 2 To examine the moderating effect of mindfulness on the longitudinal link between negative affect perception (social threat perception) and mental self-representations.

Background

- Mental representations of the self, or self-schemas, play a key role in psychological well-being, and educational, social and behavioural outcomes for adolescents (i.e. Craven & Marsh, 2008; Marsh & Martin, 2011).
- Adolescence represents a sensitive period of development for mental representations of the self wherein negative mental representations of the self may intensify (Harter, 1999).
- Research indicates that perception of negatively valenced affect such as sadness, fear, and anger is linked to social-threat perception and activation of the sympathetic nervous system (SNS) (Green & Phillips, 2004).
- Our study focuses on negative affect recognition as an indicator of social threat perception.

Method

Participants:

- 145 Canadian Adolescents (60.69% Female; T1: 12.74 years; T2: 13.38 years)

Measures:

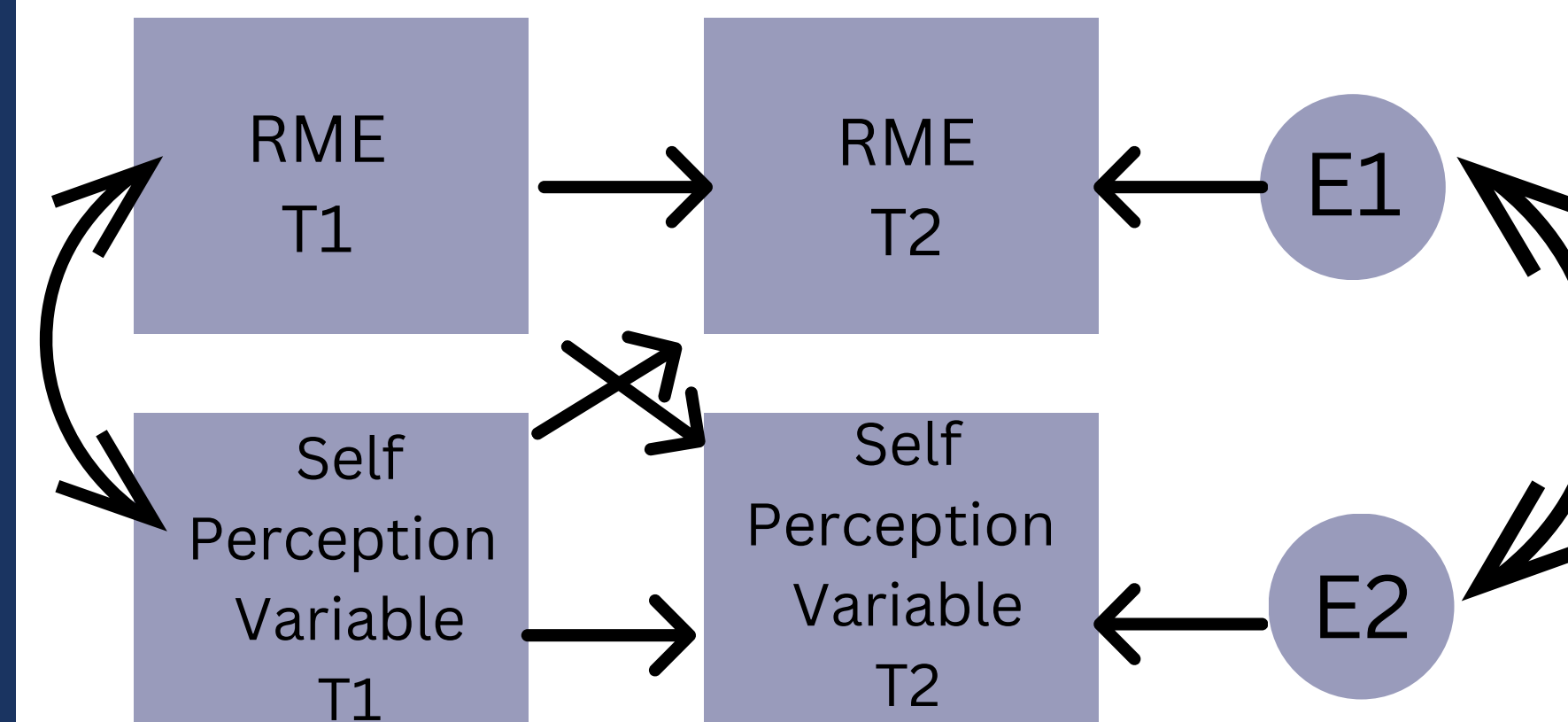
- Reading the Mind in the Eyes, negative affect subscale (RME) (Baron-Cohen et al., 2001)
- Harter Self-Perception Profile, self worth, physical appearance, behavioural conduct subscales and mean total score (Harter, 2012).
- Self-Compassion Scale, short-form (Raes et al., 2010).
- Mindful Attention Awareness Scale (Brown & Ryan, 2003).

Procedure: As part of a larger, longitudinal study, participants completed a battery of self-report measures which were readministered at T2, approximately 1 year later.

Analysis

Data was analysed in four phases:

- 1 Cross-sectional correlational analysis of T1 and T2.
- 2 Autoregressive Cross-lagged Panel Model analysis of significant correlations with negative affect recognition (RME).

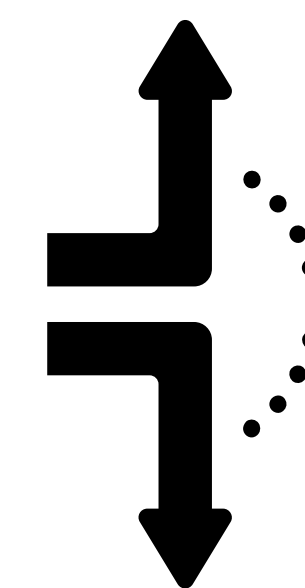


- 3 Moderating effect of mindfulness tested on significant relations over time.
- 4 Differences in gender groups explored.

Results

- 1 Negative affect recognition (social threat perception) is negatively associated with adaptive representations of the self - See correlation matrix

Social Threat Perception
Adaptive Self Representations



- 2 Adolescent girls who approached themselves uncompassionately at T1 were more perceptive to negative affect (social threats) at T2 ($B = .902$, $p = .005$, $NFI = 1$, $CFI = 1$).
- 3 While mindfulness is positively associated with adaptive representations of the self and compassionate self-responding, it does not moderate any of the relations among social threat perception and self-representations.

T 1 Variable Correlations

	Negative Affect Perception	Total Self-Perception	Behavioural Conduct Self-Perception	Physical Appearance Self-Perception	Self-Compassion	Global Self-Worth Perception	Mindful Attention Awareness
Negative Affect Perception	.		.132*		-.135*		
Total Self-Perception		.	.674**	.817**	.514**	.979**	.431**
Behavioural Conduct Self-Perception	.132*	.674**	.	.212**	.214**	.453**	.425**
Physical Appearance Self-Perception		.817**	.212**	.	.501**	.647**	.259**
Self-Compassion	-.135*	.514**	.214**	.501**	.	.494**	.450**
Global Self-Worth Perception		.878**	.453**	.647**	.494**	.	.363**
Mindful Attention Awareness		.431**	.425**	.259**	.450**	.363**	.

Note: **Correlation is significant at the 0.01 level (2-tailed), * Correlation is significant at the 0.05 level (2-tailed)

T 2 Variable Correlations

	Negative Affect Perception	Total Self-Perception	Behavioural Conduct Self-Perception	Physical Appearance Self-Perception	Self-Compassion	Global Self-Worth Perception	Mindful Attention Awareness
Negative Affect Perception	.	-.211*		-.221**	-.344**		
Total Self-Perception	-.211*	.	.650**	.823**	.537**	.979**	.431**
Behavioural Conduct Self-Perception		.650**	.	.182*		.453**	.425**
Physical Appearance Self-Perception	-.221**	.823**	.182*	.	.583**	.647**	.259**
Self-Compassion	-.344**	.537**		.501**	.	.494**	.450**
Global Self-Worth Perception	-.238**	.905**	.444**	.583**	.531**	.	.363**
Mindful Attention Awareness		.444**	.333**	.318**	.508**	.363**	.

Note: **Correlation is significant at the 0.01 level (2-tailed), * Correlation is significant at the 0.05 level (2-tailed)

Discussion

- Our findings suggest that uncompassionate self-responding in girls predicts heightened social threat perception; therefore, girls who are more uncompassionate at T1 go on to develop heightened perceptibility of social threats at T2.
- Polyvagal theory (Porges, 2004; 2009) explores the links between threat perception, SNS activation, and psychological well-being, noting that many psychological challenges (such as anxiety, depression, post-traumatic stress disorder, and addictions) are associated with a dysregulated nervous system and subsequently heightened threat perception. While current models suggest that SNS arousal influences cognitive self-schemas (Dana, 2018), our findings also provide support for an inverse relation, indicating that cognitive self-schemas influence perceptibility of negative emotions in others and perhaps SNS arousal over time.

Implications:

- Findings highlight the interplay between cognitive schemas and mentalization skills, indicating that an adolescent's self-perception may shape their social attunement.
- Findings may support the use of self-compassion-based interventions for dampening SNS arousal in adolescents.

Future Studies & Limitations:

- Future studies may explore these relations over a broader time span and involve measures of amygdala arousal.
- Limitations: The study sample was relatively homogenous with respect to ethnicity, language, and SES. Future studies should include a more diverse sample.