Executive Attention, Internalizing Symptomatology, and the Moderating Effects of Rejection Sensitivity

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INTRODUCTION

- Executive attention (EA) is the neurocognitive correlate measured to assess the efficiency of an individual's effortful control network (Rothbart et al., 2011).
- Effortful control is the voluntary aspect of temperament that delays immediate impulses for long-term goals through 3 networks: inhibitory control, activation control, and EA.
- Stronger EA networks allow for more cognitive control over emotion, as one is able to shift attention from negative thoughts to neutral and/or positive thoughts when navigating psychologically distressing cognitions and/or situations (Derryberry & Reed, 2002).
- Those with weaker EA networks experience more self-regulation difficulties, especially when faced with psychological distress (Eisenberg et al., 2009).
- Low EA in childhood has been linked to later psychopathology for both externalizing & internalizing symptomatology (IS).
- Distinctions between why those with lower EA develop IS rather than externalizing symptoms is not clear; thus, this study aimed to explore EA in the context of risk factors for IS.
- A critical link between those high in rejection sensitivity (RS) and IS has been established, such that those with high RS are more likely to experience IS (Gardner et al., 2020).
- RS is a cognitive-affective processing disposition to anxiously expect, readily perceive, and intensely react to rejection.

HYPOTHESIS

We hypothesized that RS would moderate the relationship between EA and IS in young adults; such that the negative relationship between EA and IS will be amplified in those high but not low on RS.

METHOD

PARTICIPANTS

- 117 undergraduates from an urban university; archival data from Meehan et al., (2017).
- 95 Female/28 Male, (*M*=21.39±6.38; median 19).
- 33.3% African-American, 18.5% Asian, 17.8% Latino/a, 17.8% Caucasian, 7.4% Middle Eastern, 4.4% "Other."
- 4.6% married, 6.9% not married/living together, 1.5% divorced, 86.3% single.

MEASURES & PROCEDURE

- ***Attention Network Task Revised*** (ANT-R; Fan et al., 2009); a behavioral task that evaluates the efficiency of EA. Participants were tasked to indicate the direction of the central arrow in the array of 5 arrows after a prompting cue for a total of 288 trials.
- ***Brief Symptom Inventory*** (BSI; Derogatis & Melisaratos, 1983); a 53-item self-report measure that assess psychological symptom status. IS scores were obtained by using 3 of the 9 primary symptom subscales of the BSI: anxiety, depression, and interpersonal sensitivity (α = .89). Items are rated on a 5-point Likert scale to reflect the level of distress experienced by each symptom during the previous month.
- ***Young Adult Rejection Sensitivity Questionnaire*** (RSQ; Downey & Feldman, 1996); 18-item self-report measure that presents scenarios making a request of another (i.e., "You ask someone in one of your classes to coffee") and uses a 6-point Likert scale to rate a) whether they would be *concerned* or anxious and b) whether they would *expect* the other person reject the request, α = .87.

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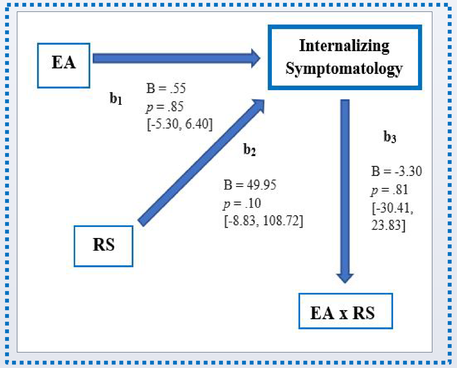
RESULTS

Figure 1. **RS does not moderate the relationship between EA and IS.**



- There were no significant covariates relative to demographics.
- The hypotheses were not supported, and the moderation model was not significant.
- Results were as follows:
  - EA was not correlated with internalizing symptomatology.
  - EA was not correlated with RS and did not interact with RS to predict increases in internalizing symptomatology.
  - RS was positively correlated with internalizing symptomatology; however, in the larger moderation model, RS did not have a direct effect on internalizing symptomatology.

Table 1.

Intercorrelations between EA, RS, and IS

Variables	M	SD	1	2	3
1. EA	1.97	1.61	-	-	-
2. RS	0.21	0.05	0.03	-	-
3. IS	29.05	13.04	0.18	-0.01	-

Note. EA = executive attention. RS = rejection sensitivity. IS = internalizing symptomatology. * = $p < .05$.

DISCUSSION

- The data suggest a possible heteromethod convergence problem.
  - Evidence that low EA may contribute to IS has been largely established using self-report measures; this study used a behavioral task to measure EA (Bornstein, 2009).
- The isolation of EA may explain current findings given the importance of the alerting and orienting systems in the flexibility of an individual's reorientation of attention.
  - Meaningful differences between attention processes exist, suggesting a dissociable relationship between attention processes and particular clinical presentations.
- Recent meta-analyses found that the role of effortful control may be directly causal or as a mediating factor influencing severity or prognosis of a specific disorder (Santens et al., 2020).
- Limitations include a small sample size and use of self-report questionnaires for RS and IS.
  - Future research examining the independent elements of effortful control may help specify functionality of the 3 components; in turn, generating implications for prevention and intervention.
  - Future research should use more multimodal approaches to assessing EA, IS, and RS.
  - Early assessment and intervention targeting effortful control may help decrease risk or severity of psychiatric disorders.

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