COGNITIVE SELF-CONTROL, OPENNESS TO EXPERIENCE, AND POSITIVE SCHIZOTYPY

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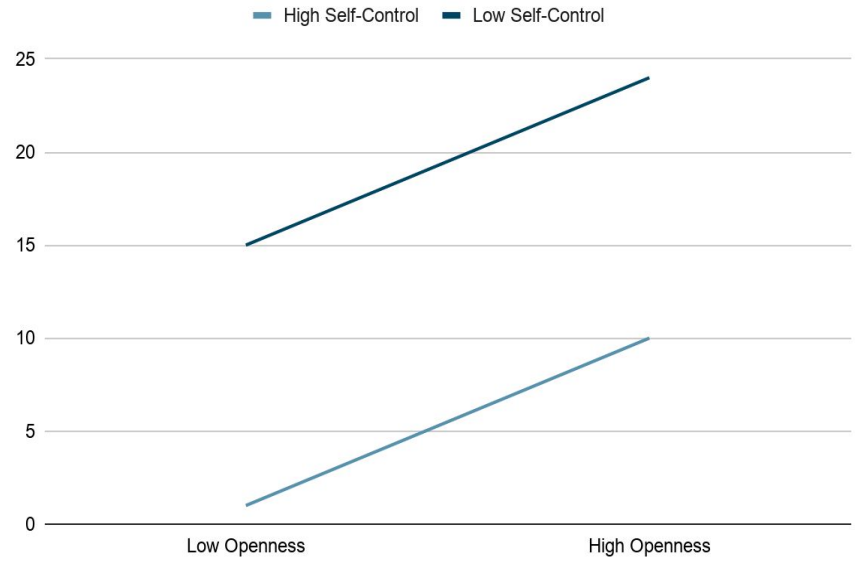
Study Aim

- *Positive Schizotypy* involves magical beliefs and unusual perceptual experiences and reflects liability for psychosis and schizophrenia

- Our study examines the association between positive schizotypy and the Five-Factor Model dimension of openness to experience, with the inclusion of cognitive self-control as a possible facilitator for the relationship.

Hypothesis

We predicted that positive schizotypy results from an interaction between high openness and low cognitive self-control, while high openness does *not* predict positive schizotypy in individuals with high self-control.



Method

~ 850 college-age participants

Materials

- Multidimensional Schizotypy Scale-Brief Edition
- S-UPPS-P Impulsive Behavior Scale
    - Negative Urgency, Lack of Perseverance, Lack of Premeditation, Sensation Seeking, and Positive Urgency
- “Aesthetic Sensitivity” and “Creative Imagination” facets of the BFI-2 Open-Mindedness Domain Scale
- Infrequency Scale

Method (cont.)

Analysis

- Multiple Regression Analysis
  - Z-transformed predictor variables derived from openness and impulsivity scores
  - Interaction term created by taking the product of openness and impulsivity

Results

Is there evidence of an interaction?

First, for the interaction between openness and impulsivity predicting positive schizotypy, our analysis yielded a p-value of .09 (trend, but > .05)

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	4.086	.141		28.893	.000
	Zscore (Open_ArtCre_Avg)	.981	.142	.222	6.930	.000
	Zscore(Impulsivity_Avg)	1.246	.142	.283	8.805	.000
2	(Constant)	4.090	.141		28.950	.000
	Zscore (Open_ArtCre_Avg)	1.000	.142	.227	7.054	.000
	Zscore(Impulsivity_Avg)	1.231	.142	.279	8.693	.000
	Interaction_OAC_Impulsivity	.231	.136	.055	1.697	.090

a. Dependent Variable: PosSchizotypy

Subsets of Impulsivity

Which are most relevant?

- Positive Urgency and Negative Urgency are most highly correlated with Positive Schizotypy ($p < .001$)
- Sensation Seeking is also highly correlated, with a p value of .008

Zscore(PosUrgency)	Pearson Correlation	.334**
	Sig. (2-tailed)	.000
	N	847
Zscore(NegativeUrgency)	Pearson Correlation	.324**
	Sig. (2-tailed)	.000
	N	845
Zscore(LackofPremed)	Pearson Correlation	.076*
	Sig. (2-tailed)	.028
	N	839
Zscore(LackofPersev)	Pearson Correlation	-.026
	Sig. (2-tailed)	.449
	N	843
Zscore(SensSeeking)	Pearson Correlation	.091**
	Sig. (2-tailed)	.008
	N	846

Positive Urgency

- **Interaction between openness and positive urgency predicting positive schizotypy**

p= .044

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	4.098	.139		29.550	.000
	Zscore (Open_ArtCre_Avg)	1.040	.139	.236	7.493	.000
	Zscore(PosUrgency)	1.528	.139	.346	10.999	.000
2	(Constant)	4.111	.139		29.666	.000
	Zscore (Open_ArtCre_Avg)	1.050	.139	.238	7.573	.000
	Zscore(PosUrgency)	1.516	.139	.343	10.916	.000
	Interaction_OAC_PosUrgency	.257	.128	.063	2.014	.044

a. Dependent Variable: PosSchizotypy

Bonferroni correction:
p-value <.01

Negative Urgency & Sensation Seeking

- **Negative Urgency and openness predicting positive schizotypy (p= .496)**

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.085	.139		29.288	.000
	Zscore (Open_ArtCre_Avg)	1.052	.140	.238	7.531	.000
	Zscore(NegativeUrgency)	1.498	.140	.339	10.713	.000
2	(Constant)	4.090	.140		29.271	.000
	Zscore (Open_ArtCre_Avg)	1.054	.140	.239	7.542	.000
	Zscore(NegativeUrgency)	1.486	.141	.336	10.540	.000
	Interaction_OAC_NegUrgency	.088	.129	.022	.681	.496

a. Dependent Variable: PosSchizotypy

Sensation Seeking

- **Interaction between openness and sensation seeking predicting positive schizotypy**

p= .286

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.088	.148		27.620	.000
	Zscore (Open_ArtCre_Avg)	.924	.150	.210	6.164	.000
	Zscore(SensSeeking)	.254	.150	.058	1.696	.090
2	(Constant)	4.063	.150		27.147	.000
	Zscore (Open_ArtCre_Avg)	.942	.151	.214	6.245	.000
	Zscore(SensSeeking)	.258	.150	.058	1.719	.086
	Interaction_OAC_SensSeek	.150	.141	.036	1.067	.286

a. Dependent Variable: PosSchizotypy

Lack of Premeditation & Lack of Perseverance

- Interaction between openness and lack of premeditation predicting positive schizotypy (p=.405)

- Interaction between openness and lack of perseverance predicting schizotypy (p=.917)

Study Conclusions

- Our results do not provide significant support for our predicted interaction effect
- However, some notable statistical trends were observed
- The S-UPPS-P facets of Positive Urgency and Negative Urgency were most significantly correlated with Positive Schizotypy in our data set
    - Suggesting that positive schizotypy is especially associated with an increased influence of emotion on impulsivity

Future Research

Exploring “Cognitive self-control”

- Further examine the of interaction between openness to experience and cognitive self-control with specific focus on emotional cognitive self-control

- Alternative measures of cognitive self-control