

The Aberrant Salience Inventory: A New Measure of Psychosis Proneness

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Introduction

Aberrant Salience

- Aberrant salience is the unusual or incorrect assignment of salience, significance, or importance to otherwise innocuous stimuli (Kapur, 2003)
- The concept of aberrant salience has a long history in psychosis research and is consistent with phenomenological descriptions of psychosis.
- Central experience is when stimuli that ordinarily would not seem important become more significant and capture attention (Bowers, 1968; Bowers & Freedman, 1966)
- Related to dopamine dysregulation in psychosis
- Based in part on research on normal incentive salience processes (Berridge, 2007)
- Despite importance, there are no questionnaire measures of aberrant salience

Purpose of Aberrant Salience Inventory

- The scale may be used to identify people at risk for the development of psychosis
- Findings from aberrant salience in subclinical psychosis may provide insight into psychosis

Nomological Network

- ASI should be correlated with other psychosis-proneness measures, dissociation, and absorption.
- ASI should be correlated with other measures that are associated with increased dopamine (e.g., the Behavioral Activation Scale).
- ASI should not be as strongly correlated with related measures of schizotypy (e.g., social anhedonia)

Current Research

Cicero, D.C., Kerns, J.G., & McCarthy, D.M. (2010). The Aberrant Salience Inventory: A new measure of psychosis proneness. *Psychological Assessment*, 3, 688-701.

Study 1: Item Generation and Scale Refinement

- An over-inclusive item pool was generated:
 - From phenomenological descriptions of psychosis in the literature (e.g., Bowers, 1968; Kapur, 2003; Parnas et al., 2003).
 - Descriptions of the prodromal phase of schizophrenia (e.g., Moller & Husby, 2000; Thomas & Woods, 2006).
 - Transcripts of interviews of people with psychosis in our lab (e.g., Kerns, 2006).
 - Items endorsed by more than 80% of the sample were discarded.

Item Generation and Scale Refinement

- Items were subjected to an Exploratory Factor Analysis
- Five factors were extracted:
 - Slope of scree plot approached zero at five factors
 - Pattern of factor loadings
- Rotated with Equamax
- Items with loadings >.35 on a factor were retained
- Items with loadings on a second factor > .30 were discarded

The Aberrant Salience Inventory

Factor 1: Increased Significance

1) Do certain trivial things ever suddenly seem especially important or significant to you?

Factor 2: Senses Sharpening

22) Do your senses ever seem extremely strong or clear?

Factor 3: Impending Understanding

2) Do you sometimes feel like you are on the verge of something really big, but you're not sure what it is?

Factor 4: Heightened Emotionality

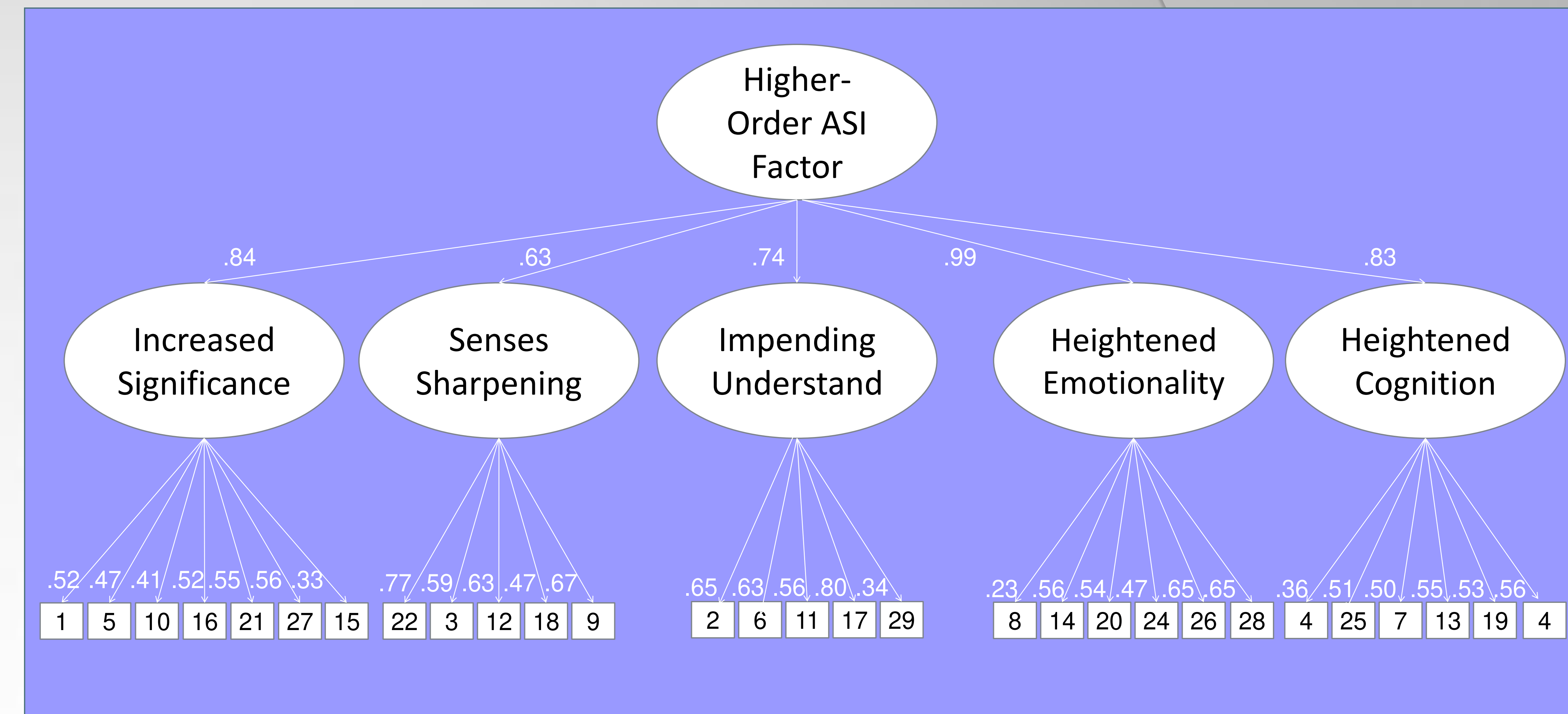
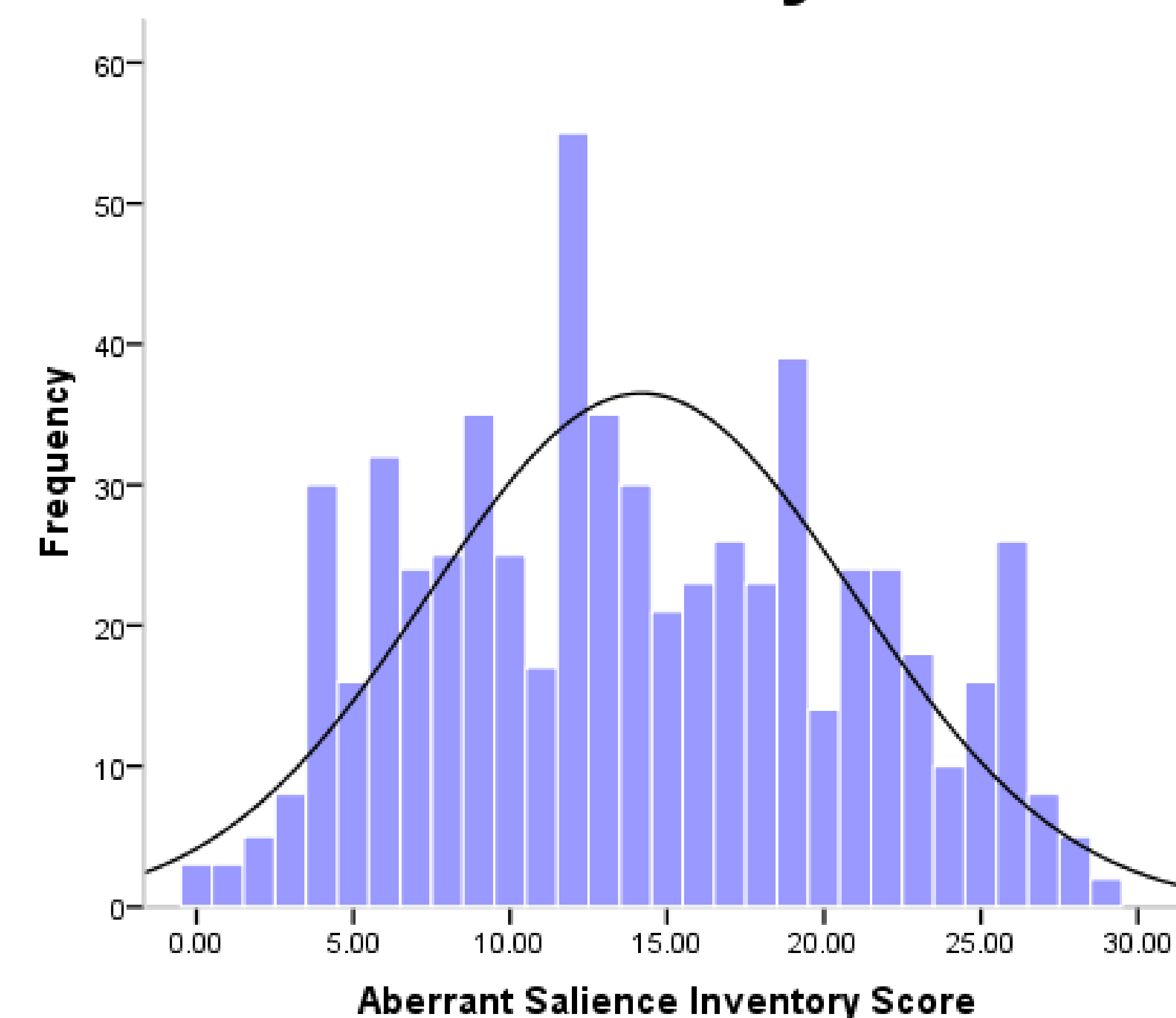
14) Do normally trivial observations sometimes take on an ominous significance?

Factor 5: Heightened Cognition

25) Do you sometimes feel like the world is changing and you are searching for an explanation?

Distribution of Aberrant Salience Inventory Scores

Distribution of Aberrant Salience Inventory Scores



Study 2: Factor Structure and Construct Validity

- Administered 29-item scale to a separate sample (n = 322)
- Psychometric properties:
 - Mean = 13.73, Standard Deviation = 6.62
 - Skew = 0.10, Kurtosis = -0.66
 - High Reliability ($\alpha = 0.89$)
- Five factor structure from study 1 fit the data well ($\chi^2/df = 1.81$, RMSEA = .05, SRMR = .07)
- Higher-order factor model fit the data just as well ($\chi^2/df = 1.81$, RMSEA = .05, SRMR = .07; $\chi^2(5) = 10.60, p = 0.06$).

Construct Validity

	1	2	3	4	5	6
1. ASI	.89					
2. MagicID	.55*	.85				
3. PerAb	.47*	.66*	.87			
4. SocAnh	.17*	.21*	.37*	.82		
5. REF	.41*	.49*	.41*	.32*	.80	
6. TAS	.56*	.58*	.47*	.20*	.38*	.93
7. DPS	.51*	.50*	.50*	.26*	.32*	.57*

Further Construct Validity

	1	2	3	4	5	6	7
1. ASI	.89						
2. MagicID	.55*	.85					
3. PerAb	.47*	.66*	.87				
4. SocAnh	.17*	.21*	.37*	.82			
5. BAS-Drive	.15*	.08	.11	.01	.82		
6. BAS-Fun	.15*	.11	.11	-.03	.52*	.71	
7. BAS-Reward	.17*	.10	.07	-.07	.49*	.50*	.80
8. BIS	.11	.11	.10	-.09	.07	-.02	.32*

Conclusions

- ASI scores have reliability and validity for measuring subclinical psychosis.
- Aberrant salience is composed of 5 correlated factors
- Other research has found that participants at risk for psychosis have elevated ASI scores (Cicero et al., 2010)
- Inpatients with a history of psychosis have higher ASI scores than inpatients without a history of psychosis (Cicero et al., 2010)

Future Directions

- Use the ASI to further explore the nomological network of aberrant salience
 - Further evaluate the construct validity of the ASI in prodromal and first-episode patients
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