

## Supplemental Data

### Distinct Face-Processing Strategies

#### in Parents of Autistic Children

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Supplemental Experimental Procedures

Assessment of the Broad Autism Phenotype.

Characteristics of the BAP were assessed through clinically-based interviews using the Modified Personality Assessment Schedule-Revised, or MPAS-R. This instrument has been used in a number of studies to define key features of the BAP [1,2,3], and recently to begin examining the neuropsychological basis of the BAP [4]. Interviewers guide participants through a number of questions to probe personality characteristics and dispositions relevant to autism and the BAP, namely, rigid or perfectionistic personality, and socially aloof or untactful disposition/behavior. These traits correspond to the ritualistic/repetitive and social symptom domains of autism, respectively. Such features have been shown reliably to distinguish autism relatives from controls, as well as to differentiate multiplex from simplex families, who are believed to vary in genetic liability to autism [1].

Ratings were assigned by two independent raters from videotapes of interviews with both subject and informant (spouse). Concrete behavioral examples were solicited to substantiate trait endorsement, and such examples were core criteria in rating decisions. Subjects were assigned a rating of '0' (no evidence of trait), '1' (uncertain), or '2' (clearly present) by each rater. Raters' scores were then combined and discussed to achieve consensus scores for each personality trait. Disagreements were resolved by having a third rater independently score the interviews. We adopted a conservative approach of considering only those ratings of '2' as positive for a BAP trait, and ratings of '0' as negative for a BAP trait; ratings of '1' were omitted from this study. The present report classified participants

based solely on the aloof dimension of the BAP. Inter-rater agreement exceeded 85% for all traits.

Supplemental References

1. Losh M, Childress, D., Lam, K., & Piven, J.: Defining key features of the broad autism phenotype: A comparison across multiple- and single-incidence families of autistic individuals. American Journal of Human Genetics: Neuropsychiatric Genetics (in press).
2. Piven J, Palmer, P., Landa, R., Santangelo, S., Jacobi, D., & Childress, D.: Personality and language characteristics in parents from multiple-incidence autism families. Am.J.Med.Genet. 1997; 74:398-411
3. Murphy M, Bolton, P., Pickles, A., Fombonne, E., Piven, J., & Rutter, M.: Personality Traits of the Relatives of Autistic Probands. Psychological Medicine 2000; 30:1411-1424
4. Losh, M. and Piven, J. (2007). Social-cognition and the broad autism phenotype: identifying genetically meaningful phenotypes. J Child Psychol Psychiatry 48, 105-12.

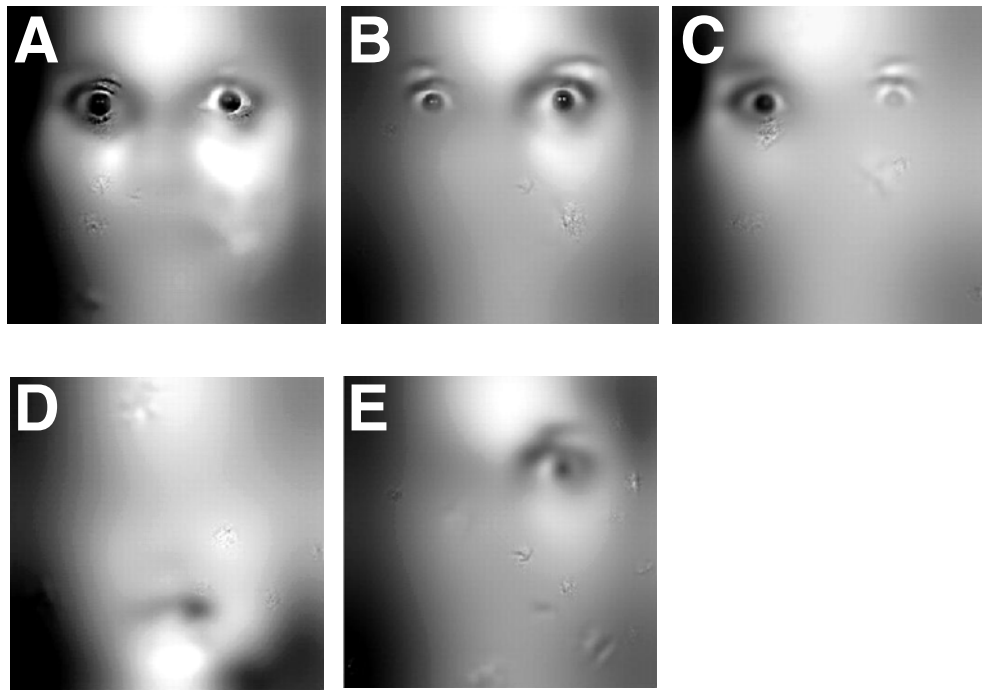


Figure S1. Classification images for male subjects only

The top row shows the classification images for each of the three groups of subjects in isolation. A: Controls; B: BAP-; C: BAP+. The bottom row shows the classification difference image between the two BAP groups. D: BAP+ minus BAP-. E: BAP- minus BAP+. The overall pattern is similar to the one obtained with the entire subject sample.