**Neural Correlates of Fluid Intelligence via Functional and Structural Network Connectivity Measures**

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Some theorize that a definition of intelligence could be the ability to identify subtle patterns across distantly related ideas or pieces of data. The Raven’s Progressive Matrices (RPM) task tests for this fluid intelligence (FI) measure. Emerging studies suggest that the connections of distinct neural networks can partially explain psychiatric disorders and behavioral traits. These connections can be characterized by functional network connectivity (FNC), using correlated fluctuations in resting-state fMRI data, or by structural network connectivity (SNC), using probabilistic tractography on diffusion MRI data. Here, we use public fMRI data [n=127] and dMRI data [n=288] from the Human Connectome Project to examine the relationships between various combinations of FNC and SNC values to FI scores, as assessed via the Penn variant of the RPM. Using a Support Vector Regression (SVR) within a cross-validation framework, we used subsets of subjects’ FNC and SNC values across and within various networks as training features in order to predict their FI scores. With the accuracy of this model, we evaluate the percentage of variance in FI accounted for by a subject’s FNC and SNC measures.