Review of: "Deep Learning Modeling for Prediction of Cognitive Task Related Features from Resting-state fMRI Data"

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Potential competing interests: No potential competing interests to declare.

1. Authors stated *"Studies predicting cognitive test scores from resting-state fMRI (rs-fMRI) are less common…"*, I believe that the current research gap tackled could be specified more clearly, e.g. stating if this is the first study that deals with the prediction of Kohs block-design test's scores from rs-fMRI.
2. Please specify the optimizer employed during the training step to minimize MSE.
3. Authors performed two occlusion experiments to deal with interpreting the Deep Learning model. Explainable AI provides different interpretation techniques to tackle the *"open the black-box"* problem, but the faithfulness of post-hoc interpretation techniques in representing the AI model decision-making process is still an open question. I believe that a possible direction for future work would be to assess different interpretability techniques to inspect if other interpretation methods produce different sorting of the importance of brain ROIs.