Decoding complexity

PROPOSITIONS TO ACCOMPANY THE DISSERTATION

DECODING COMPLEXITY:
A data-driven approach to unraveling transdiagnostic markers in psychiatry
by Hannah Meijs

1. Integrating polygenic risk scores with EEG markers offers a promising transdiagnostic approach to predict treatment outcomes for psychiatric patients (this thesis).

2. Drug-class-specific and sex-specific associations play a role in EEG networks predicting remission from MDD, which highlights the potential for treatment stratification (this thesis).

3. Deep learning can help automated indentifying spindling excessive beta (SEB) in the fronto-central lobes, which serves as a potential transdiagnostic marker for sleep maintenance problems, that in turn may cause impulse control problems (this thesis).

4. Sex-specific effects in adults with MDD and children with ADHD set the stage for sex-stratified research, with the potential of developing sex-informed treatment protocols to enhance response rates (this thesis).

5. Complementing the DSM-5 with dimensional and transdiagnostic perspectives can improve the understanding and treatment of mental health conditions.

6. Traditional psychiatric treatments often yield suboptimal outcomes due to the complexity of mental health disorders. Advances in genetics and neuroimaging can transform psychiatry by identifying biomarkers that stratify patients, reducing trial-and-error and improving outcomes.

7. Utilizing data-driven techniques, such as deep learning, can revolutionize psychiatry by identifying complex patterns in large datasets, leading to the discovery of biomarkers for more personalized treatment approaches that improve patient outcomes.

8. This thesis presents novel appraches that can aid in the transition from traditional psychiatry to stratified psychiatry, through the use of transdiagnostic EEG biomarkers (this thesis).

9. Patient-centered approaches, which integrate biological, psychological, and social factors, will remain central in psychiatry to enhance the effectiveness of mental health care.

10. "If you always do what you always did, you will always get what you always got."
Albert Einstein

11. "All truths are easy to understand once they are discovered; the point is to discover them."
Galileo Galilei