Finger Biometrics with Applications in Psychiatry

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What is the connection between a psychiatric illness and upper limb motility? The present paper aims to identify specific motility of the upper limb in connection with the sphere of psychiatric diseases. Regarding the procedures used, they consisted on the one hand in a theoretical analysis about the anatomy and physiology of the hand and the nervous system, but also in their application in psychiatry - testing and diagnostic methods, interpretation of psychiatric language and behavioral and emotional symptoms. On the other hand, the experimental part of the project is divided into three categories: dynamometer experiments, experiments with piezoelectric sensors and experiments with resolver. The order is not random, but gradual, from the lowest degree of generality to the highest. The study is based on two main books in the field - Diagnostic and Statistical manual of mental disorders, 4th edition (DSM-IV) and Clinical Psychiatry - Kaplan and Sadock (Pocket Manual). The interpretation of the project, in its early stages, consisted in the fact that the nature of mental disorders and uncontrolled hand movements have partially the same nature, but also their direct identification (for example Rett disorder or Parkinson's disease).Subsequently, we tested different characters of these motility such as stability, sensitivity, periodicity incorporated in a series of tests pin games. The conclusions drawn from the research were that people suffering from mental illness can be identified in a simpler and more accurate biometric way, with an important applicability in the field of medicine.

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