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(54) Title: MEASURING AND STRENGTHENING PHYSIOLOGICAL/NEUROPHYSIOLOGICAL STATES PREDICTIVE OF SUPERIOR PERFORMANCE

(57) Abstract: To identify physiological states that are predictive of a person's performance, a system provides physiological and behavioral interfaces and a data processing pipeline. Physiological sensors generate physiological data about the person while performing a task. The behavioral interface generates performance data about the person while performing the task. The pipeline collects the physiological and performance data along with reference data from a population of people performing the same or similar tasks. In various implementations, the physiological states are brain states. In one implementation, the pipeline computes bandpower ratios. In another implementation, the pipeline decomposes the physiological data into frequency-banded components, identifies brain states derived from the decomposed data—for example, clusters of correlations of decomposed data envelopes—grades the performance data, compares the graded performance data to the brain states, and identifies statistical relationships between the brain states and levels of performance.