TO WHAT EXTENT COGNITIVE AND BIOLOGICAL

IB Psychology notes on The cognitive level of analysis: Cognition and Emotion - To what extent do cognitive and biological factors interact in emotion?.

Although a cause and effect relationship may have been established which supports the theory of cognitive appraisal, the situation was artificial. Our expectation is that some degree of cognitive decline reflects multiple causal biological factors e. One solution is to consider cognitive biology only as a subset of cognitive science. Such functional biomarkers may be proxies for physiological resilience, exerting their influence on cognitive function through pathways such as increased physical activity levels that share known associations with increased expression of certain genes, brain plasticity, and improved cognitive function e. Not only do I jump, but I experience arousal of the sympathetic nervous system. For example, Goffaux and colleagues created a summary index of biological age based on measures of endurance, strength, flexibility, balance, cognition, depression, comorbidity, and exercise. This appears to support all three hypotheses. The body has a very fast biological response in order to protect itself. The average number of correctly recalled words was the outcome measure. Considered together, a theoretically motivated selection of functional biomarkers may be used eventually to operationalize biological aging or bioage. But what does this have to do with the two-factor theory? Fluid reasoning. Recent investigations have operationalized biological aging as an index of various key biomarkers, some of which include both functional and neural markers. Since all objects and events have somatovisceral consequences, cognitive and sensory experiences are necessarily affectively infused to some degree. For example, variability due to underlying health conditions e. Cognitive psychology studies how information is processed by the brain and sense organs. In the field of cognitive aging, biomarkers of cognitive and functional change and decline span a diverse continuum of biological and neurological processes and indicators Raz et al. Cognitive Measures Indicators of five cognitive constructs i. Semantic memory. Cognitive processes such as appraisal influence emotions. For example, the decision to append cognitive to a body of biological research on neurons, e. This links with the concept of cognitive appraisal, Lazarus 13 Lazarus Appraisal theory This theory states that cognitive factors can control stress responses. They were told that they were going to be injected with a new vitamin, Suproxin; however, in actuality they were injected with adrenaline. Participants were asked to place the last letter in a series of letters that would continue the established pattern e. Categorical assignments were problematic. Consistent with expectations, significant declines were observed for all cognitive outcomes and biomarkers of interest. Could it be that not all emotions are based on arousal? Multilevel models were fit to test the dynamic coupling between change in theoretically relevant biomarkers e.