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**A SUMMARY OF THE RELATIOSHIP BETWEEN PSYCHOLOGY AND BIOLOGY**

**Psychology** is the scientific study of the human minds and its functions, especially those affecting behavior in a given content. It includes the study of conscious and unconscious phenomena including feelings and thoughts while **biology** is the study of living organisms divided into many specialized fields that cover their morphology and distribution. Below are some of the relationships between psychology and biology.

**Psychology and biology as separate disciplines**

According to this view, psychology cannot move from analysis, understanding and explanation in terms of biology and vice versa thus reminds one of Descartes mind body dualism, psychology and biology emphasis that in accompany with the view psychology can’t be reduced to biology hence bringing latter positions by biologists and former positions by psychologists. Bandura and Kagan articulated that different vocabularies are necessary for the two analyses, for example Bandura (2001) stated that cognitive processes are emergent phenomena that differ qualitively from the neural events that are part of them and cannot be reduced to their neural events that is to say the analogy of the properties of water not being reduced to the components of water.

In addition, in Millers (1996) presidential address to the society for psycho physiological research, he expressed concern that a “ naively reductionist” view of psychological concepts is prevalent and rejected the view that biology is more fundamental than psychology, fundamentally psychological concepts require fundamentally psychological explanation.

**Psychology and biology as alternative, competing disciplines (question of reductionism)**

This position often feelings from biologists who suggest that psychological terms can and should be reduced to biological terms hence the term reductionism. Many psychologists understand reductionism to have a negative implication, suggesting that something of value is lost when moving from large groups to smaller groups for example; Miller said “The worst consequences of the biology versus psychology was the assumption that dysfunction conceived biologically warrant interventions conceived biologically and similarly for dysfunctions and interventions conceived psychologically. In addition to reductionism biologist Wilson (1998) said we must reduce the level at which we analyze phenomena and work backward towards synthesis. As competing disciplines, he argues for biology as the most relevant discipline for unifying the life science and often morphs into unnecessary and unproductive explanations for phenomena of interest, for example in terms of understanding the treatment of mental illness. Luhrman (2000) said there is a competition between psychiatrists who emphasize the treatment of minds through psychotherapy and others through drugs. Kandel (1998) suggest that every mental disorder is a disorder of brain functioning and therefore treatment work by altering structure and the functioning of the brain.

**Psychological and biological level of explanation**

In this relationship, reductionism is rejected and a person is as a whole with observation at various level of organization, each level considered has distinct properties independent of the other level and some resembles. Below are the relationships at the levels of explanation.

Firstly, is where research at one level for the most part results in findings that duplicate those at another level for example, an fMIR investigation found that emotional processing was more engaged in the solving of some judgments than others especially duplicating reports that people would have a harder time pushing a stranger off the bridge to save five people that hitting a switch that save five people that kill one.

Secondly, data from one level validate, invalidate or clarify data from another level for example; heritability data played a valuable role in invalidating the purely environmental model of schizophrenia and the model of autism.

Thirdly, the method of research of data from one level advances research at another level for example; Kandel (2006) adopted the method of classical conditioning to do his pioneering research of memory as in distinction between explicit and implicit memory and conscious and unconscious processes leading to research in associated differences in brain mechanism.

Finally, the relationship between genetic factors and environmental influences that jointly contribute to the development of the depression (Caspi et al., 2003) and in this thinking and research at one level is tied to the thinking and research at another level.

All the above relationship varies depending on which measures are used at each level.

In a conclusion, the relationship between psychology and biology have a phenomena observed at one level and can drive new questions to be asked at another level or questions answered at different levels and they can be reduced to one another from the highest level to the lower level.