

BIOLOGICAL APPROACH

– Contribution to research methods and ethical considerations

Think of possible studies and contents related to the contribution of research methods and ethical considerations under the biological approach. Write down your suggestions to the boxes below.

Contribution of research methods	Ethical considerations

BIOLOGICAL APPROACH

– The relationship between the brain and the behaviour

Play Alias with the cards. If you encounter any difficulties or you feel that the cards do not contain some essential content, please, write your comments to this paper.

Brain research	Brain imaging techniques / neuroimaging	Psychophysiology
Physiological psychology	Correlative research design in brain research	Clinical neuropsychology
Temporal resolution	Spatial resolution	Invasiveness
Localization (of function)	Relative localization	Lateralization
Neuroplasticity	Neuron	Synaptic transmission
Neural network	Neural pruning	Neurotransmitter
Agonist	Antagonist	Neural network
Draganski et al. (2004) – Comparing jugglers and non-jugglers through brain scans	Maguire et al. (2000) – Hippocampi of London taxi drivers	Fisher, Aron and Brown (2005) – Dopamine and romantic love
Merzenich et al. (1984) – Amputation of owl monkey fingers and mapping their cortex	Werker et al. (1981) – Hindi phoneme discrimination in infants (pruning)	Crockett et al. (2010) – Serotonin on prosocial behaviour

BIOLOGICAL APPROACH

– Hormones and pheromones and their effect on behaviour

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Hormone	Endocrine system	Oxytocin
Romero et al. (2014) – The role of oxytocin in promoting social bonds in mammals	Scheele et al (2012) – The role of oxytocin in fidelity	Pheromone
Lundström and Olsson (2005) – Laboratory experiment searching for human sex pheromone	Cutler, Friedman and McCoy (1998) – Field experiment searching for human sex pheromone	

COGNITIVE APPROACH

– The relationship between genetics and behaviour

Play Alias with the cards. If you encounter any difficulties or you feel that the cards do not contain some essential content, please, write your comments to this paper.

Genome	Genotype	Phenotype
DNA (deoxyribonucleic acid) and RNA (ribonucleic acid)	Genetic heritability	Twin and kinship studies
Niche-picking	Theory of evolution (Darwin, 1856)	Evolution
Recombination	Mutation	Natural selection
Adaptation	Epigenetics and epigenetic changes	Evolutionary psychology
Curtis, Aunger and Rabie (2004) – disgust as an evolutionary mechanism to avoid diseases	Bouchard and McGue (1989) – Correlational meta-analysis of twin studies on the genetic heritability of intelligence	Caspi et al. (2003) – Longitudinal study on the possible role of the 5-HTT gene in depression