

Essay title: Discuss holism and reductionism in psychology. (16 marks)

The holism and reductionism debate focuses on an important question in the philosophy of science: Can complex behaviours be reduced to their simpler components?

The reductionist approach argues for the affirmative. For example, biological reductionism reduces all behaviours, no matter how complex, to the actions of neurons, neurotransmitters, hormones, etc. A powerful example is Ramachandran's suggestion (2000) that the experience of empathy can be best understood as the action of mirror neurons. Environmental reductionism insists that behaviour is nothing more than a series of stimulus-response links. Experimental reductionism attempts to explain behaviour by relying on the isolated variables operationalised in laboratory research.

The defence of the reductionist approach rests on one essential epistemological claim: it is the aim of science to discover the simplest explanation that accounts for the most variation. If it is in fact the case that, for example, genes are responsible for 80% of intelligence, and environment for 20%, reductionists would insist that no more complex explanation is necessary or desirable. Science is a reductionist endeavour, and if psychology is truly a science, then it should be one as well.

Criticism of reductionism takes many forms. Some psychologists argue that biological reductionism can lead to errors of understanding because it ignores the complexity of human behaviour. For example, to treat conditions like ADHD with drugs in the belief that the condition consists of nothing more than neurochemical imbalances is to mistake the symptoms of the phenomenon for its true cause. Ritalin may reduce these symptoms, but the conditions which gave rise to the ADHD have not been addressed. Whether or not this is true depends to a large extent on what one thinks of as causation, but since success rates of drug therapy are so highly variable, the purely biological understanding seems inadequate.

The critique of environmental reductionism is as much methodological as it is substantive. Much of the relevant

An excellent definition and example of biological reductionism.

While these are good definitions, an example of environmental reductionism would have been useful here.

An interesting evaluation point looking at 'psychology as a science.'

An excellent criticism of reductionism using a powerful example.

An excellent conclusion to this evaluation point.

research in the behaviourist tradition has made use of non-human animals as subjects. The classic Pavlovian experiments are an iconic example. But is human behaviour simply a scaled-up version of that of dogs or rats? Critics of reductionism point to the social context in which humans are embedded from the earliest moments of life, and to hard-to-measure factors like cognition, emotion, and intentionality. In this case as well, the reductionist position seems, if not clearly incorrect, then at least inadequate.

The holistic approach, in sharp contrast, maintains that human behaviour is best understood as an integrated experience rather than as separate and distinct parts. For example, Gestalt psychology adopts a holistic approach to perception: when we perceive something in the real world, we do so as a whole rather than as a collection of bits and pieces. The physiology of perception is a biological phenomenon; the psychology of perception is something more, and arguably holistic in nature.

The holistic approach rejects reductionism in favour of a perspective that is best called interactionist. Even if the body and mind are two different entities, empirical research has clearly demonstrated what everyday experience has already taught us, that mind and body interact intensely and inevitably. Recognition of that existential truth is the most potent critique of the reductionist argument.

[529 Words]

Examiner style comments: **Mark band 3**

While this a well-detailed and accurate essay which is well-written, there is a lot of knowledge/description, relative to the evaluation/discussion. The evaluation is thorough and effective. However there could have been additional evaluation points and further evaluation in some places. For example, there is very little evaluation in relation to holism which would have improved the overall balance of this essay.

An effect point explaining the issues of environmental determinism.

The answer focuses on 'discussing' rather than simply evaluating, which is excellent.

The holistic approach is accurately defined

While this is a well-written evaluation paragraph, it could have been developed by elaborating or providing an example of the research.