PSYCHOPATHOLOGY: OCD

Outline and evaluate the biological approach to explaining obsessive compulsive disorder

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The biological approach to explaining obsessive compulsive disorder (OCD) focuses on biological processes and innate characteristics such as candidate genes. Genetic explanations have centred on identifying particular genes implicated in OCD and two genes have been named; the COMT gene and SERT gene. The COMT gene involves the production of catechol-O-methyltransferase and regulates the production of the neurotransmitter dopamine which has been implicated in OCD. Some patients report feelings of hypervigilance and have an increased physiological response to the stimulus or situation triggering their OCD. In other cases, the SERT gene is linked to the neurotransmitter serotonin, affecting its transport which causes lower levels of serotonin, also associated with OCD. This chemical is responsible for regulating our mood and is implicated in depressive feelings and anxiety.

One strength of the biological explanation of OCD comes from research from family studies. **Lewis (1936)** examined patients with OCD and found that 37% of the patients with OCD had parents with the disorder and 21% had siblings who suffered. Research from family studies, like Lewis, provide support for a genetic explanation to OCD, although it does not rule out other environmental factors which might play a role. Further support for the biological explanation of OCD comes from twin studies such as **Nestadt et al (2010)** who conducted a review of previous twin studies examining OCD. They found that 68% of identical twins and 31% of non-identical twins experienced OCD, which suggests a very strong genetic component. However, there are issues accepting evidence from twin studies as nurture can never be ruled out as an external influence. Nevertheless, neural explanations have strong scientific evidence, particularly from drug therapy. **Pigott (1990)** found that anti-depressant drugs, which increase serotonin activity, have been shown to reduce the symptoms of OCD.

As well as the genetic and neural explanations of OCD, it is suggested that certain regions of the brain, in particular the basal ganglia and orbitofrontal cortex, are implicated in OCD. The basal ganglia is a brain structure involved in multiple processes, including the coordination of movement. It is also involved in processed such as emotion, language and decision making, and is a key part of the circuits that control reward-based learning and sequencing. This may explain why patients with OCD have strong urges to give into their obsessions and compulsions. **Max et al (1994)** found that when the basal ganglia is disconnected from the frontal cortex during surgery, OCD-like symptoms are reduced. Another area of the brain explored in OCD explanations is the orbitofrontal cortex, a region which converts sensory information into thoughts and actions. Brain scan studies have found higher activity in the orbitofrontal cortex in patients with OCD. It is suggested that the heightened activity in the orbitofrontal cortex increases the conversion of sensory information to actions/ behaviours, which results in the compulsions seen in OCD sufferers.

One weakness of the biological explanation for OCD is that it ignores other factors and is reductionist. For example, the biological approach does not take into account cognitions (thinking) and learning. Some psychologists suggest that OCD may be learnt through classical conditioning and maintained through operant conditioning stimulus, in a similar way to phobias.

Despite the criticisms the biological explanation for OCD is believed to be a reliable suggestion marked by scientific evidence, adding credibility to the argument and proving effective in the treatment process.