



## Dement & Kleitman (1957) ~ The relation of eye movements (REM) during sleep to dream activity

### Extended Answer Exam Questions

1. The Biological Approach studies physiological aspects of behaviour, describe what Dement & Kleitman were studying in their investigation. (4 marks)

Dement and Kleitman studied the physiological behaviour of sleep in particular the four stages of sleep and if and when REM sleep occurs. They wanted to investigate the relationship that REM sleep has with dreaming. They did this by using an EEG machine which attached electrodes to a participant's face and scalp prior to a night of sleep. Freud argued that dreaming was a way of preventing upset and disturbed sleep by allowing wish fulfilment to occur in our dreams. However, Cognitive Psychologists have argued that dreams are the brain's way of making sense of the world, and are simply just how we process memories and events from the day. Dement and Kleitman studied 5 participants intensively to study REM sleep and dreaming, as well as estimated dream duration and also dream content and direction of eye movements in REM sleep.

2. In the Biological Approach researchers use specialised equipment to investigate aspects of behaviour. Explain how Dement & Kleitman used specialised equipment to investigate their aim. (8 marks)

Specialised equipment is the use of any form of apparatus or materials devised specifically to investigate an aspect of behaviour that is usually of a scientific nature. Most forms of specialised equipment allow researchers' a bias free, strictly controlled use of apparatus. This is more reliable as it produces more factual scientific data. The equipment is usually an objective form of measurement which records quantitative data which can be analysed easily. For example, in Dement and Kleitman's study they used an EEG machine which recorded brain activity and indicated when participants were in a stage of REM sleep. This was characterised by a low voltage, relatively fast pattern in the EEG. The findings associated EEG patterns were identical to previous observations on uninterrupted sleep. This is a reliable technique and allows researchers to form more credible conclusions based on their findings. However Dement and Kleitman's study can be criticised for reliability despite using specialised equipment as they relied upon self report methods (when participants were asked to recall their dreams) which are subjective. The specialised equipment could also be said to lack ecological validity as most people would be unfamiliar with such machines, illustrating the artificial nature of the lab experiment. If this experiment were to be

repeated researchers would need to change the dream recall tests to make them more objective in order for reliability and subsequent credibility to be increased. Nevertheless, the fact that Dement and Kleitman used specialised equipment was enough to provide them with sufficient evidence to demonstrate the relationship between REM sleep and dreaming.

