

General Certificate of Education Advanced Level Examination June 2013

Critical Thinking

CRIT3

Unit 3 Beliefs, Claims and Arguments

Source Material

This source material is to be read in conjunction with the questions in Unit CRIT3.

Document A

Dreams: Introduction

- Dreams have long been a source of fascination for human beings, and different cultures have had their own explanations in terms of what they are, and what they mean. Yet, whatever the truth about dreams – whether they are messages from a spiritual world, or simply random noise generated in the brain – there are two facts which make them especially intriguing.
- 2. First, although some people do not remember their dreams, everyone does dream. This has been demonstrated by scientific experiment. Secondly, and perhaps more surprisingly, the same research showed that we *need* to dream. Subjects whose dream sleep was systematically interrupted showed clear evidence of needing to 'catch up' on this phase of sleep; they also experienced symptoms such as anxiety, irritability and difficulty concentrating when awake.



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Characteristics of dreams

3. Dreams tend to differ from waking life in terms of both content (what we dream about), and the way we experience that content. The content of dreams can seem impossible, the sequence of events illogical when compared with waking life. Dreams can nevertheless be amazingly vivid – they often seem entirely 'real', and are characterised by a heightened emotional intensity in our reaction to events within the dream. We also tend to be less reflective in our dreams about what is going on: we accept whatever happens unquestioningly and only later when we wake do we think back on how unusual they were or what they might have meant.

The sleep cycle

- 4. Scientific research has established that during sleep the body goes through a sequence of stages, known as the sleep cycle. Each stage can be identified by physiological changes that take place in the body, for example the heart rate slowing and body temperature dropping.
- 5. There is strong evidence that most dreaming takes place in the stage of sleep known as REM (rapid eye movement) sleep (so-called because people's eyes tend to flicker around rapidly). People who are awakened during REM sleep will usually say that they have been dreaming. Most of the dreams that you remember will take place during this stage. There is some evidence that dreaming can occur in other stages of sleep, though it tends to be less vivid.

Physiological or psychological?

6. Theories about dreams often fall into one of two types: those theories which see the *meaning* of the dream as being of primary importance; and those which see the primary importance being the physiological, neurological and biological events and processes going on, the content of the dream being of less (and even perhaps of no) significance.

Document B

Freud's wish fulfilment theory (WFT)

- One of the most influential theories that tries to explain dreams psychologically was that of Sigmund Freud (1856-1939). Freud believed that dreams express unfulfilled wishes. In *The Interpretation of Dreams*, he provides, as a simple example, a time when he went to bed thirsty after eating a salty meal, and then dreamed of drinking huge quantities of water.
- 2. According to Freud, dreams often express an unconscious wish that you have repressed, or 'censored' from yourself, because you would find it unbearable. The classic example is the so-called Oedipus complex, a deep and subconscious sexual desire for one's mother, stemming from jealousies and insecurities in early childhood. Freud believed that the conscious mind would be so repulsed by the thought that it would disguise it through symbols. Interpreting dreams therefore requires a knowledge of what the symbols refer to.
- 3. Many dream symbols, according to Freud, are sexually related, since the sexual drive is the strongest motivating force and therefore the source of our strongest desires and wishes. At the same time, our sexual urges are usually the ones we feel most ashamed or guilty about, and so are the ones we are most likely to disguise.



Image: CHAD BAKER © Getty Images

- 4. The idea of being able to 'censor' something from yourself indeed, the very idea of an unconscious wish in itself might seem incoherent; how can a *wish* or *desire* not be conscious? Doesn't wishing or desiring something imply you are aware of it?
- 5. Freud attempted to explain this phenomenon by maintaining that the mind, or psyche, was not a single thing and not all of it was actually conscious in the normal sense. Freud held that there were different parts to our psyche which functioned in different ways and with varying degrees of conscious awareness. Essentially this meant that the part of the mind which was responsible for our primitive desires was not so much part of the conscious mind, but the subconscious. This division of the self or mind into conscious and subconscious parts helps his theory to account for the way that we are (he maintains) able to almost fool or trick ourselves, so that we can keep certain wishes or desires hidden from ourselves since we can have a desire or wish at one level of our mind/psyche but not actually be conscious of its presence in our minds.

- 6. As well as unfulfilled wishes, Freud thought dreams could also express unresolved or badly resolved childhood conflicts. For example, if you dream that a loved one has died, it may reflect the fact that when you were a child, you wanted someone you love to die. You now know that such thoughts are wrong, so you repress your memories of them.
- 7. Freud believed that a lot of mental problems can be resolved by decoding the 'true' meaning of dreams. In understanding what the particular wish or desire is that you have been repressing, you can come to terms with this aspect of yourself and consequently, through facing up to it and discussing it with a trained doctor, remove the source of your mental problems. This process, of seeking to understand the 'true' meaning of dreams, and thereby cure people of psychological problems, is known as psychoanalysis.

Problems with Freud's theory

- 8. A criticism of Freud's wish fulfilment theory is that if it were true, once your repressed wishes became evident to your conscious mind, you would no longer need to have so many dreams. As each repressed desire was revealed, your need to dream would decrease. Therefore, as people went through analysis, and they became consciously aware of their formerly repressed desires, they would (be expected to) have fewer and fewer dreams. This does not happen.
- Brain Behaviour Research, by Crick and Mitchison, into the behaviour and sleep patterns of babies and other animals has thrown up other objections. Their research pointed out that almost all mammals and birds – animals which have a neocortex [see Figure 1] or similar structure – experience REM sleep. Freud's theory can't explain why even tiny moles undergo REM sleep.
- 10. They also noted that in mammals, fetuses and newborns experience much more REM sleep than older animals. Psychoanalysis doesn't explain why a newborn baby or someone that hasn't even been born yet would need to dream, let alone spend more time dreaming than an adult. What unwanted thoughts could they be repressing?

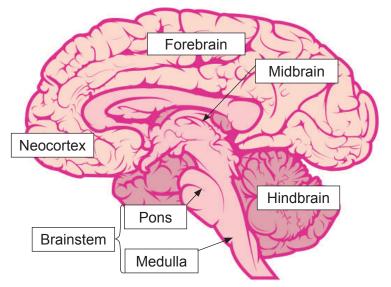


Figure 1: Diagram of the human brain

Image: STEVE DRESSLER © Getty Images

Document C

The activation-synthesis theory (AST)

- 1. An alternative view to psychological theories of dreams is that dreams can be better, more accurately, and more scientifically explained without recourse to their meaning. They can be explained purely physiologically. These theories can therefore be described as physiological. The activation-synthesis theory of dreams is an example of such a theory.
- The activation-synthesis theory of dreams was developed by J. Allan Hobson and Robert W. McCarley of Harvard University, who explained their theory in an article in the American Journal of Psychiatry in 1977. The activation-synthesis theory says that dreams are caused by the brain trying to give meaning to random stimuli that take place during sleep.
- 3. The key difference between this theory and Freud's is that, whereas psychoanalysis says that dreams have a psychological cause, the activation-synthesis theory says that dreams essentially have a physiological cause. Hobson and McCarley based this idea on the following observations that all people have dreams, and that the dreaming phase of the sleep cycle happens at regular intervals and has a predictable length. This implies that dreaming is an automatically pre-programmed activity of the brain.
- 4. Hobson and McCarley said that during REM sleep, the pons (which is part of the brain stem shown in **Figure 1**) creates random stimuli. The forebrain, the seat of conscious thought, becomes activated. It then tries to synthesise a coherent story from these random stimuli. When possible, it uses thoughts held in short-term memory to help flesh out the story.
- 5. For example, suppose the pons creates stimuli that resemble the stimuli that are produced when you are running in waking life. Your mind will interpret this as running in a dream. Your mind may also incorporate any recent memories to help explain why you are running. For example, if earlier in the day a large dog frightened you, you might dream that you are being chased by a wolf.
- 6. Hobson and McCarley said that the extremely common dream that someone is chasing you, but you can't move is probably your forebrain's way of explaining the fact that you really are paralysed when you are dreaming.
- 7. The activation-synthesis theory explains why dreams can be bizarre and illogical and change very rapidly, with sudden shifts of scene and changes in people's identities. Because the stimuli from the pons are random and constantly changing, the forebrain constantly has to create new dream scenarios to explain them.

Criticisms of the activation-synthesis theory

8. The activation-synthesis theory explains why dreams can frequently change, in a bizarre manner. However, it does not explain why dreams can also have very complicated, coherent and sometimes extremely entertaining plots. It's hard to imagine how random activity from the brain stem can lead to the creation of such well-crafted stories. This theory also fails to explain how someone can wake up from a dream, then fall asleep again and continue having the same dream.

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