Freudian dream theory today

In 1953 a physiological state known as ‘REM sleep’ was discovered by Aserinsky and Kleitman (1953). This is a paradoxical state in which one is simultaneously highly aroused and yet fast asleep. It occurs approximately every 90 minutes throughout the sleep cycle, with monotonous regularity. In 1957 Dement and Kleitman announced that dream reports were obtained from approximately 80 per cent of awakenings from this state. By contrast, only 10 per cent of awakenings from non-REM sleep elicited equivalent reports. This was the basis for the conclusion that REM sleep is the physiological equivalent of dreaming. The brain mechanisms of REM sleep were laid bare in a succession of experiments performed mainly by Jouvet and Hobson: REM is switched on and off by a simple oscillatory mechanism located in a lowly part of the brainstem. This part of the brain has very little to do with mental life (its only mental function is to regulate levels of wakefulness); it couldn’t perform the complex mental juggling involved in dream-work. Accordingly, by the mid-1970s, Freud’s theory of dreams as complex mental creations (see box) was considered disproved.

Subsequent research revealed a more complicated state of affairs, and the simple ‘REM = dreaming’ equation was discarded (see Solms, in press-a, for a review). First, Foulkes and Vogel (1965) demonstrated that far more dreams occur outside of REM sleep than the early studies suggested. As many as 50 per cent of awakenings from non-REM sleep elicit dream reports, and 20 per cent of these are indistinguishable by any criterion from REM reports (by blind raters). Second, research by Antrobus and others (Antrobus, 1991; Kondo et al., 1989) revealed that the occurrence of non-REM dreams is a function of level of arousal. This suggested that the bold equation ‘REM = dreaming’ should be replaced by a more prosaic formula: ‘brain activation during sleep (regardless of sleep stage) triggers dreaming’. Third, it became clear that the brain mechanisms of dreaming do not coincide with those for REM sleep. For example, lesion studies revealed that damage to the REM-generating parts of the brainstem do not cause cessation of dreaming, whereas damage to higher forebrain structures does, in which case cessation of dreaming is not accompanied by cessation of REM (Solms, 1997, in press-a).

The theoretical emphasis in the formula ‘brain activation during sleep triggers dreaming’ falls on the word ‘triggers’. The

SUMMARY OF THE THEORY

Freud (1900/1961) claimed that dreams were attempts to fulfil peremptory wishes, arising during sleep, derived from appetitive (‘libidinal’) urges. He based this claim on findings from a purely subjective method: he collected dreamers’ associations to the individual elements of their dreams and then inferred implicit, underlying themes from the converging semantic and affective links. The ‘latent’ thoughts revealed in this way, Freud observed, were always wishful — notwithstanding the fact that manifest dreams assume a wide variety of forms, some of which (e.g. nightmares) appear anything but wishful.

The differences between the ‘manifest’ and the ‘latent’ content of dreams led Freud to infer an intervening process, by means of which the unconscious wishes could be transformed into conscious dreams. This intervening process was the so-called dream-work, which involved mechanisms such as ‘displacement’ (substituting representational elements for one another, e.g. your father is represented as a policeman), ‘condensation’ (combining multiple elements into composite hybrids, e.g. ambition, excitement and anxiety are all represented by a single image of an ascending escalator) and ‘regression’ (converting thoughts into perceptions, e.g. a person’s importance is represented by their size).

Why did Freud think the mind functioned in this peculiar way during sleep? He offered a cascade of hypotheses. The sleeping mind is disconnected from external reality but not from its innate (instinctual) dispositions. These dispositions are unmodulated during sleep by the constraints of external reality. Goal-directed motor activity is unusual during sleep. The motivational programmes that are activated during sleep (and especially the peremptory ones, activated from instinctual sources) cannot readily be discharged in motor activity during sleep. Sleep and goal-directed action are, for the most part, mutually exclusive states. Instead of acting on one’s wishes during sleep, therefore, one imagines oneself acting on them. This imaginary (hallucinatory) fulfilment of the wish defers the pressure to act. Hence Freud’s claim that ‘dreams are the guardians of sleep’.

However, the unconstrained imaginations of the sleeping mind threaten to disturb sleep (i.e. they arouse anxiety). The process of dream-work is therefore tendentiously biased in favour of more acceptable representational elements and narratives. This bias is our mind’s ‘censorship’. To the extent that the censorship fails to disguise disturbing dream thoughts adequately, the process fails and the dreamer awakens (typically from an anxiety dream).
mechanism of dreaming cannot be reduced to simple brain activation. The activation merely triggers a process that has a complex internal organisation of its own.

Recent research (Braun et al., 1997; Maquet et al., 1996; Nofzinger et al., 1997; Solms, 1997) has revealed that dreams require the concerted activation of a tight network of brain mechanisms responsible for instinctual behaviours, emotion, long-term memory, and for visual perception, with simultaneous deactivation of mechanisms responsible for reality monitoring and goal-directed activity. It appears that the instinctual and emotional mechanisms near the centre of the brain initiate the process, and that the ‘manifest’ dream is the culmination of a process of backward projection (cf. Freud’s ‘regression’) onto the perceptual structures at the back of the brain (Solms, 1997).

These new findings are compatible with Freudian dream theory, in most respects. This is true even of Freud’s central claim that dreams give expression to instinctual and emotional command. The aspect of Freudian dream theory that is most difficult (although not impossible) to reconcile with current neuropsychological knowledge is that of ‘censorship’ (see Hobson, 1999, for a discussion of this issue, and Solms, in press-b, for suggested research directions to resolve the question).

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**Freud in modern light**

**References**


