

# Free sleep and learning in cats (and humans) essay example

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Cats and humans share a great number of traits, most of them plainly observable. Among those is our shared tendency to sleep in certain observable ways. Among others, they experience the same phases of sleep we do: a single phase of Rapid Eye Movement (REM) sleep, along with four stages of Non-REM sleep which form a predictable cycle. (NINDS)

Observing two sleeping cats -- one sitting up, eyes closed and motionless except for an occasional rotation of the ear or motion of the whisker; the other curled up, mostly flaccid but with paws and lips twitching -- these two kinds of sleep are in clear evidence. (Photo)

In photograph (a), the cat is experiencing NREM sleep, discernable chiefly by the fact that the cat is upright, but also visible in the slight misalignment of the cat's ears, indicating environmental awareness of the kind common to cats in NREM sleep. (Wells)

In photograph (b), the cat is almost certainly experiencing REM sleep. The assumption can be made because the cat's ears are fully upright (i. e. relaxed), indicating a lack of environmental awareness, and because the cat is prone and appears flaccid, a facet of the kind of neck-down paralysis necessary to allow a cat -- or human -- to safely experience the dreams that are the hallmark of REM sleep. (NINDS)

Those dreams are likely the reason REM sleep evolved among warm-blooded creatures: science's current understanding is that dreams are the brain's method of consolidating and organizing memories, given that the areas of the brain associated with spatial memory and learning are activated during dreams. REM sleep might serve an important adaptive function for both humans and cats by allowing us to remember complex experiences

significantly after the fact, a hypothesis somewhat verified by the fact that people taught a skill and then deprived of REM sleep were unable to recall the skill they had been taught. (ibid.)

## References

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