

Drive

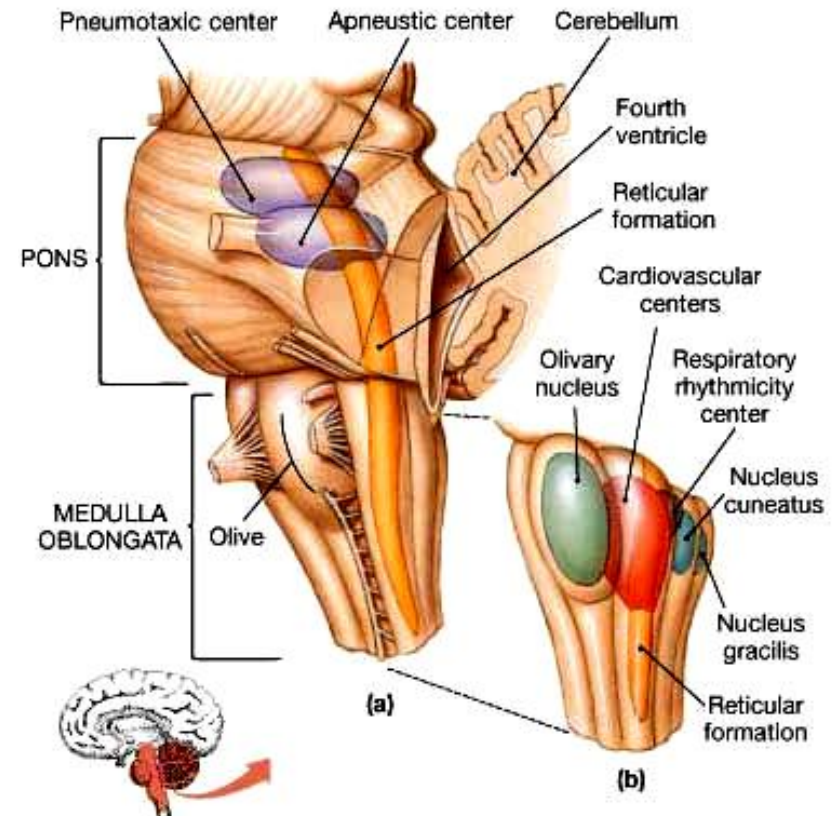
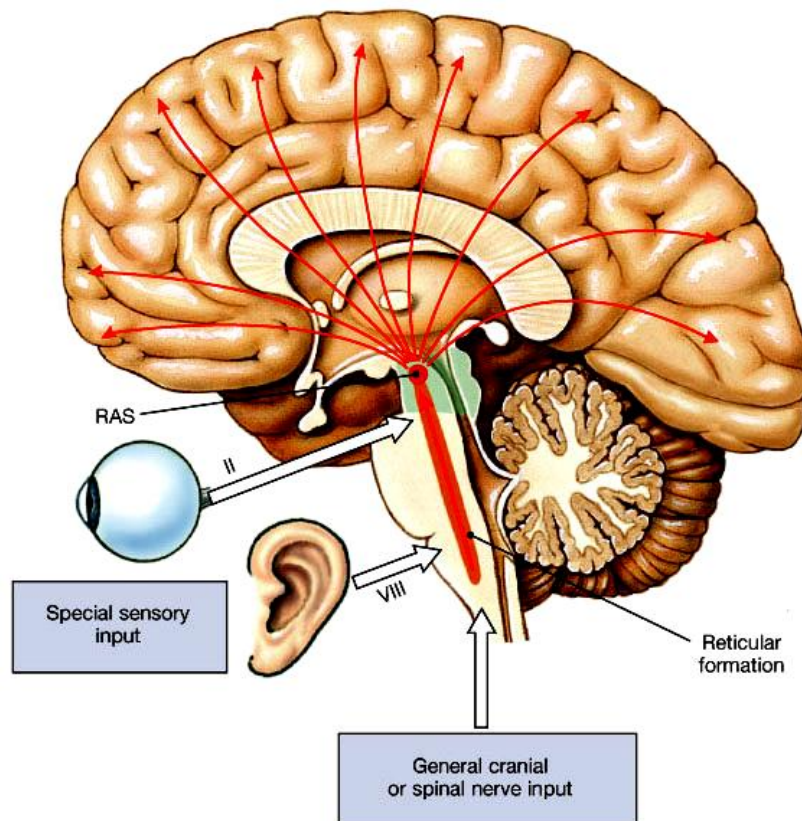
Arousal

Reinforcement

Intrinsic vs. extrinsic motivation

Arousal

- **Drive:** provides motivation to perform, but does not select appropriate response or determine the direction of behavior.
- **Arousal:** similar to drive in terms of its behavioral properties, but more closely related to its physiological substratum, the reticular activating system.

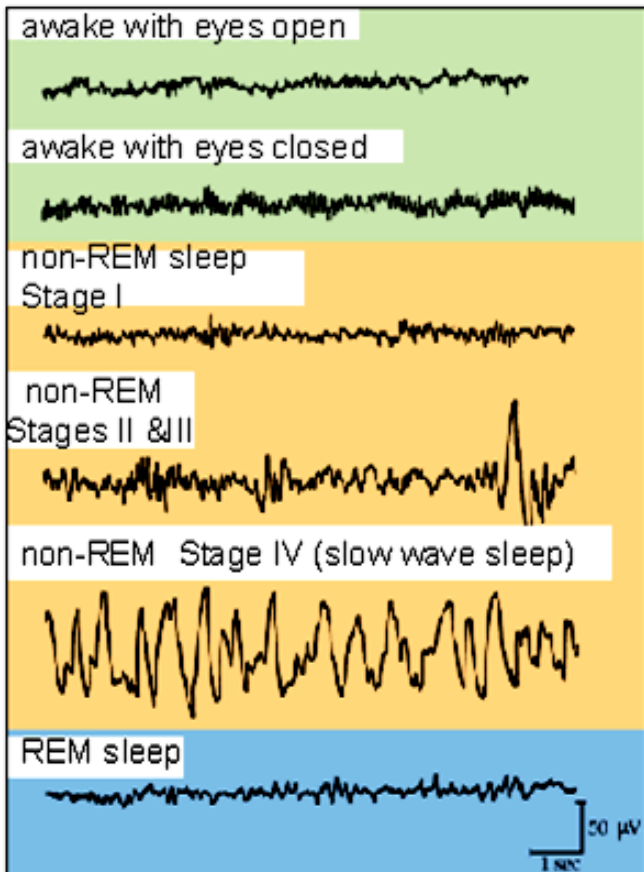


Cycle of sleep and wakefulness



EEG

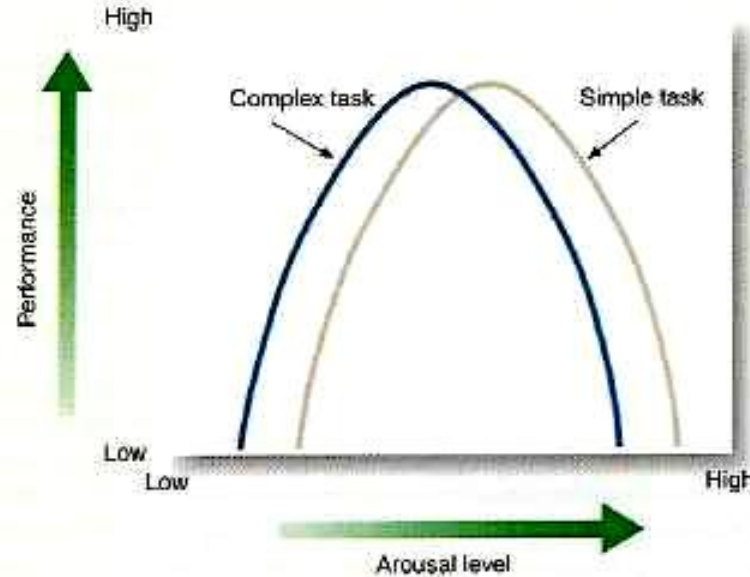
Awake



- REM (and awake): low voltage, high frequency waves- neurons are highly active, but most are not firing in synchrony
- non-REM, Stages I-III: waves of progressively greater amplitude and lower frequency (5-10 Hz)- neurons are less active with remaining activity synchronized
- non-REM, Stage IV (SWS; 'deep sleep'): large waves of very low frequency (~ 1 Hz = 'delta waves') few neurons are active but they are highly synchronized

Deep sleep

Yerkes-Dodson (1908) law: Optimal arousal



- **Arousal** sometimes is used as a synonym for **emotional stress**.
- **Stress**: an emotional response to excessive environmental demands.
- **Stress management**: some programs use the Yerkes-Dodson law to illustrate the psychological consequences of stress.

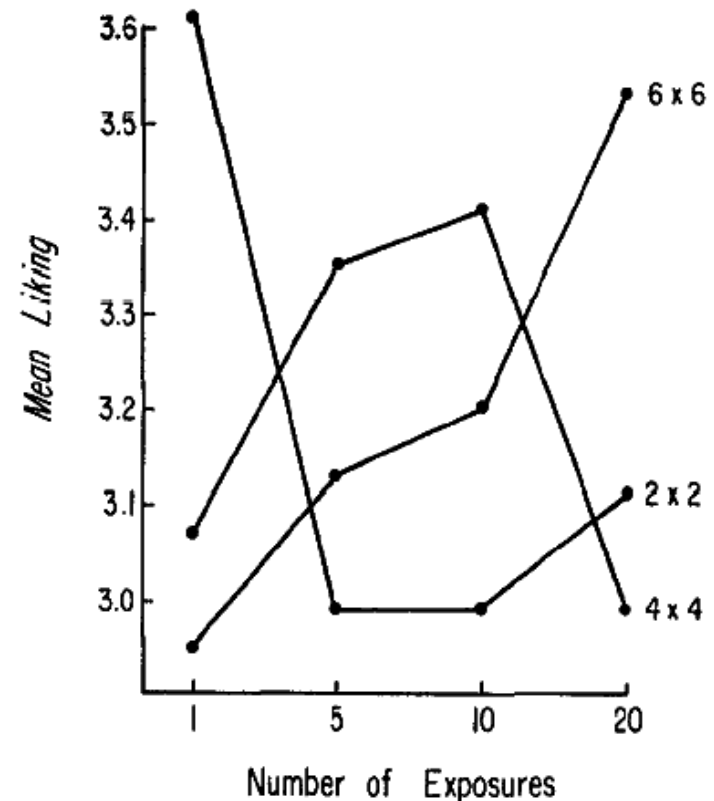
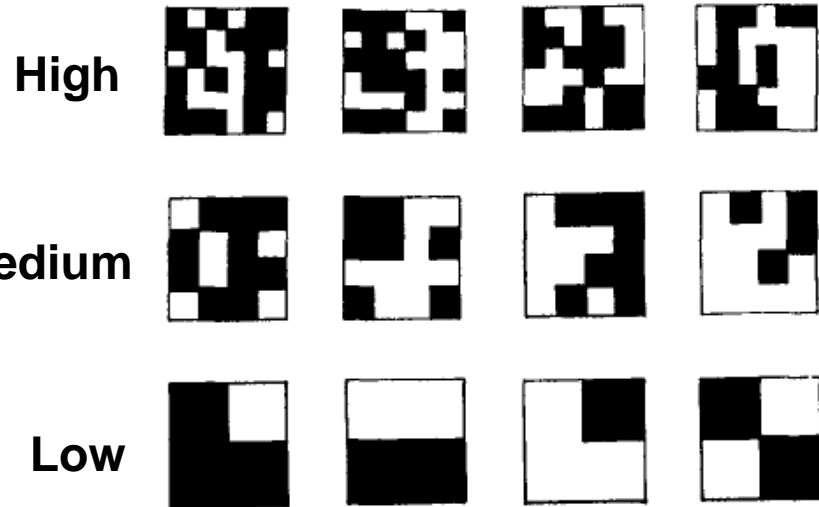
Arousal and related concepts

- **Arousal** sometimes is used as a synonym for **attention**.
- **Attention**: perceptual selectivity.
- **Arousal and attention**: arousal tends to reduce the range of stimuli to which the organism can pay attention (focusing).



Arousal and related concepts

- **Arousal** sometimes is used in relation to **curiosity**.
- **Curiosity**: “drive” to explore the environment.
- **Curiosity and complexity**: complex stimuli tend to induce more curiosity, especially after some experience.



Arousal and related concepts

Humor may involve a (pleasant) increase in arousal, often related to incongruity and surprise.

