

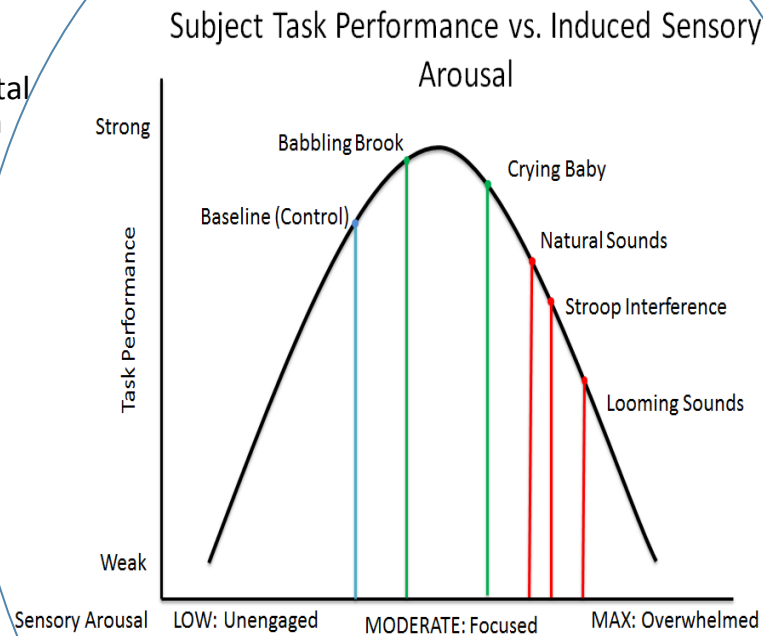
The Effect of Sensory Stimuli on the Performance of Security-Critical Tasks

Challenge:

Recognize the impact of incidental or deliberate sensory distraction on the performance of security-critical tasks

Solution:

- Expose subjects completing security-critical tasks to various sensory stimulation
- Different types of stimuli can create a consistent negative or positive effect



Scientific Impact:

Mapping out the Yerkes-Dodson curve for security-critical tasks, to

- identify new attack vectors based on control of environment
- identify beneficial stimuli for improving user performance

Broader Impact:

- Developers can include beneficial stimuli in their UI when challenges are presented
- Identify new attack vectors for adversaries who have control over the environment