Ongoing behavior influences inputs

- General background activity can shape the degree of adaptation and set thresholds for responses. Alert versus resting responses differ a great deal. (Castro Alamancos)

- Background activity can serve as "noise" which can allow for subthreshold inputs to be communicated in a nearly linear fashion (Collins, Longtin)

- Spatiotemporal dynamics
  - Recurring spatio temporal patterns in V1 (Arieli,Tsodyks)
  - Flicker phosphens influence effects of simple visual inputs (Billock & Tsou)

Neuronal synchrony

- Direct coupling; e.g. gap junctions, synapses in oscillating networks. Pretty well worked out at least for oscillators and excitable strongly coupled systems

- Common inputs, especially noisy ones can lead to synchronous or at least highly correlated output (Reyes, et al, Galan et al)

- Indirect coupling.

  - GNRH neurons show very synchronous rhythms with no clear synaptic interactions.

  - Circadian pacemakers show no obvious slow coupling. How do slow oscillations get influenced by fast interactions?