

# Thought Experiments

## Inventing a new construal of time

Today, cognitive scientists now speak of “D-time” (deictic time: a now, a before, and an after), “S-time” (sequence time, a later and before than), and “T-span” (temporal span, longer & shorter than).

In Professor Núñez’s lecture, he discussed spatial construals of deictic time in spatial terms, using the Aymara and Yupno peoples (in comparison to ours).

### Try to invent a novel construal time.

1. Note what concept of time you using: D-time, S-time, T-span.
2. Describe this construal. Is it spatial? How is the concept of time embodied, as in what aspects map onto ‘more concrete aspects of experience’?
3. How would speakers who construe time in this way talk (come up with some sentences and describe what they mean)?
4. Why does this construal exist? What about your fictional people’s experience in the world or in culture caused this to exist (or are your functional people aliens with different umwelt)?
5. Now imagine an anthropologist tipped you off to these remarkable people. How do you validate whether this construal is indeed as you invented? How do we know!?

## Strange consequences of brain lateralization

As Professor Coulson discussed, cognitive functions can be localized to specific brain regions. Some cognitive functions, like language, tend to be lateralized—meaning one hemisphere of the brain is more responsible for language than the others.

The corpus callosum, which contains cross-hemisphere connections (axons from neurons with somas in one hemisphere), span the corpus callosum to signal neurons with somas in the other hemisphere.

Some patients with severe, drug resistant epilepsy, have undergone a procedure in which the corpus callosum is severed to prevent epileptic seizures from moving between hemispheres in the brain. Patients who have undergone this procedure were found to have cognitive deficits.

### Based on what we learned in class, discuss the *possible* consequences of split-brain syndrome.

1. What might these patients find easy and what might they find difficult?
2. Would they have trouble verbally reporting on information presented in a certain way to one side of their body than the other?
3. Try to design an experiment that would elucidate the cognitive consequences of split-brain syndrome.
4. What other interesting things did you discuss?