

## **APPLIED COGNITIVE SCIENCE**

### **CLASS WEEK 2: BODY OVER MIND: CIRCADIAN AND HOMEOSTATIC RHYTHMS**

#### **Introduction**

In this class experiment we will investigate how circadian rhythms and changes in homeostatic balance influence mood and performance on a simple cognitive experiment (a version of the classic Stroop task). These aspects of human cognition are almost always ignored, but vital in real life and clearly shows that humans are biological systems, not computers.

#### **Data collection**

To investigate these questions, we will collect data from ourselves (and relatives) at different time points and at different levels of energy deficits.

Homework before class therefore consists of taking part in a 5 minute online experiment 5-10 times. These tests should as a minimum include:

1. A hungry state where at least 6 waking hours has passed since last eating (or consuming energy rich drink).
2. A night state at least 3 hours past normal bedtime (stay sober).
3. A morning state just after waking, prior to eating.
4. A morning state soon after waking and after eating.
5. A noon, afternoon or evening state.

There is no upper limit to how many times you can take the test.

Try to find one additional non-CogSci student to also complete the test in order to make results more valid for the general population.

#### **The online experiment can be found here:**

<https://chani.cogsciexperiment.au.dk/FaceStroopExp.html>

Before running the experiment, you need to make up a personal ID to give to the script in order for you to remain pseudo-anonymous (it may be possible to determine identity by triangulating the demographic variables), while also being able to compare responses from the same individuals at different time points. This ID should have the following format: two letters + two numbers (e.g. I am mw73, so don't pick that).