While circadian rhythms in physiology and behavior demonstrate remarkable day-to-day precision, they are also able to exhibit plasticity in a variety of parameters and under a variety of conditions. After-effects are one type of plasticity in which exposure to non-24-h light-dark cycles (T-cycles) will alter the animal's free-running rhythm in subsequent constant conditions. We use a mathematical model to explore whether the concept of synaptic plasticity can explain the observation of after-effects. In this model, the SCN is composed of a set of individual oscillators randomly selected from a normally distributed population. Each cell receives input from a defined set of oscillators, and the overall period of a cell is a weighted average of its own period and that of its inputs. The influence that an input has on its target's period is determined by the proximity of the input cell's period to the imposed T-cycle period, such that cells with periods near T will have greater influence. Such an arrangement is able to duplicate the phenomenon of after-effects, with relatively few inputs per cell (~4-5) being required…Read more here
RESEARCH NOTES AND ACTIVITIES


PSYCHOLOGY IN THE NEWS

Dr. Kelly Schwartz in 660 News “Parents’ stress rises as they have to teach kids: An expert weighs in”

VOLUNTEER AND JOB POSTINGS

For Undergraduate Students

Volunteer Research Assistant Needed

The Healthy Families Lab is in search of an undergraduate student who can assist with the organization and management of study data over the Spring/Summer. The time commitment would be approximately 6-8 hours a week. We are especially interested in help from students who able to speak/read/write in French and have experience with REDCap and/or Qualtrics. If you are interested, please complete the full lab application that can be found here: [https://www.healthyfamilieslab.com/join-the-lab-2](https://www.healthyfamilieslab.com/join-the-lab-2). Please also include a resume/CV and cover letter and email all materials to dhillak@ucalgary.ca

For Graduate Students, Faculty, & Staff

Masters in Experimental Psychology with Specialization in Wearable Technology

The Healthy Families Lab at the University of Calgary is advertising for a MSc or PhD student in an experimental psychology with an interest in exercise and sleep during the transition to parenthood. The student would become part of an innovative line of research investigating interventions to improve and preserve health behaviours (e.g., sleep and exercise) during the transition to parenthood and the role of digital and wearable technology in both assessment and health promotion. Primarily supervised at the University of Calgary, the student would have the opportunity to be a part of the wearable technology program and to collaborate with the Behavioural Medicine Lab at the University of Victoria.

Interested students are encouraged to reach out to Dr. Tomfohr-Madsen for more details. [https://www.healthyfamilieslab.com/](https://www.healthyfamilieslab.com/)
Happy Monday!

Congratulations to everyone included in the Monday Memo! The department recognizes your hard work and dedication. Keep it up!

Do you have something you would like to include in the Monday Memo newsletter? Please send it to pnguy@ucalgary.ca before Thursday at noon.

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