



Department of Psychology
The University of Hong Kong

香港大學心理學系

Departmental Seminar

Early-life Stress and Habitual Responding

3:00 p.m. – 4:00 p.m. | March 13, 2024 (Wednesday)

Social Sciences Chamber, 11/F, The Jockey Club Tower | Centennial Campus

The University of Hong Kong



Prof. Barbara KNOWLTON

Professor of Psychology

University of California, Los Angeles

Abstract

The transition from action to habit may be a fundamental component of the development of substance abuse disorder. Much research in public health has shown a strong relationship between the experience of early-life stress and subsequent substance abuse in adulthood. I will describe our work evaluating the hypothesis that stress during development leads to a dominance of circuitry supporting habit learning at the expense of declarative learning. We have developed several instrumental learning tasks for use in the laboratory in which we can measure the degree to which responding is habitual through outcome devaluation, reversal learning, or changing schedules of reinforcement. Our work indicates neglect during childhood is particularly associated with habitual responding in adulthood. We also find an association between laboratory measures of habitual responding and reported substance use, supporting the idea that these measures reflect real-world dispositions. I will describe work in animal models indicating that different cortico-striatal loops mediate goal-directed and habitual actions, and next steps for examining these brain mechanisms in humans.

About the Speaker

Professor Barbara Knowlton received a B.A. in Psychology from Johns Hopkins University, and a Ph.D. in Neuroscience from Stanford University. She completed post-doctoral work in the Department of Psychiatry at UC San Diego. The focus of her research is the study of the neural bases of memory. A number of different approaches was used in her study, including neuroimaging and testing neuropsychological patients to describe functional differences between memory systems and the brain regions that support different memory processes.

Zoom Meeting (For participants who couldn't attend the Seminar in person)

<https://hku.zoom.us/j/91386519751?pwd=cUg1L3ZHNkhlWTISRUdxS29USHdzZz09>

Meeting ID: 913 8651 9751 | Password: psyc



~All are Welcome~

Enquiry: rpsyc@hku.hk