**Department of Psychology**
The University of Hong Kong
香港大學心理學系

**Departmental Seminar**

# Decoding the Brain's Mechanisms for Emotionally Modulated Attention

**2:00 p.m. – 3:00 p.m. │December 23, 2024 (Monday)**
**Room 1103, 11/F, The Jockey Club Tower│ Centennial Campus │ The University of Hong Kong**

## Kesong Hu, Ph.D.

Department of Psychology
University of Arkansas at Little Rock

## Abstract

Understanding how emotions modulate attention is fundamental to promoting mental health and cognitive wellness across diverse populations. While both positive and negative processes critically influence attentional mechanisms, the precise neural pathways underlying these emotion-attention interactions remain poorly understood. In this talk, I will introduce my representative work on how affective motivational states shape attention and attentional selection. Leveraging recent methodological advances, I aim to enhance our understanding of emotion-attention interactions at both neural and behavioral levels. Specifically, I will present behavioral, physiological, and neuroimaging evidence demonstrating how gain and loss influence early attentional processing, and how simultaneous threat and reward interact to modulate visual attention. I will conclude by discussing the clinical implications of this work, particularly how understanding these basic attentional mechanisms can inform interventions for individuals experiencing anxiety, stress, or mood disorders.

## About the Speaker

Dr. Kesong Hu is an Assistant Professor of Psychology and Neuroscience at the University of Arkansas at Little Rock (UALR), where he directs the Emotion-Cognition Neuroscience Laboratory. He is also an affiliated scientist at the Brain Imaging Research Center at the University of Arkansas for Medical Sciences (UAMS), where he conducts collaborative neuroimaging research. Dr. Hu completed his postdoctoral training at Cornell University with Dr. Adam Anderson and at the University of Maryland, College Park, with Dr. Luiz Pessoa. He earned his Ph.D. from the Chinese University of Hong Kong (CUHK), collaborating with Dr. Arthur Samuel of Stony Brook University. Prior to this, he received his B.A. in Education from Beijing Normal University and his M.S. in Cognitive Psychology from Peking University.

His research integrates cognitive psychology, emotion/motivation, neuroscience, and computational modeling. Using behavioral and neuroimaging techniques (fMRI and EEG), he investigates how emotions—induced by stimuli such as monetary rewards or mild electric shocks—interact with cognitive processes, including perception, attention, and executive function. His work examines the role of emotions across the spectrum of human cognition, from basic perception to complex decision-making. Dr. Hu's research addresses fundamental questions such as the mechanisms of visual search, the trainability of perception and attention, the basic nature of emotions, the influence of acquired emotions on decision-making, and the interaction between positive and negative emotional processes. Dr. Hu is also involved in psychiatry and clinical neuroscience research, aiming to bridge basic science with clinical interventions and training.

## Zoom Meeting (For participants who couldn't attend the Seminar in person)
https://hku.zoom.us/j/6985555998?pwd=V05yTGJWNTlzazd2OFZ0Q3FReHVkdz09
Meeting ID: 698 555 5998│Password: Psyc

**~All are Welcome~**

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