

The University of Hong Kong
Department of Psychology

Departmental Seminar

Why a snake-like structure hurts visual search?

Date: July 24, 2013 (Wednesday)
Time: 11:00 a.m. – 12:00 noon
Venue: Social Sciences Chamber, 11/F, The Jockey Club Tower, Centennial Campus, HKU
Speaker: Ms. Chow Hiu Mei Doris
MPhil Candidate
Department of Psychology
The University of Hong Kong

We search in our everyday life: for a keyword in a revising paragraph, for friends at a meet up point, for suspicious items in an airport security check. Thus, it is of both theoretical and practical importance to understand what makes some targets easier than others to be detected. Perceptual grouping, the organization of elements into bigger units for further processing, has recently been reported to be one factor interacting with visual search: observers were slower to find the target when it overlaps with a task-irrelevant snake-like (collinear) structure among a homogeneously arranged texture background (Jingling & Tseng, 2013). This phenomenon is puzzling because it is opposite to the past studies demonstrating target search was facilitated when the target overlapped with a perceptually grouped, thus salient background structure. In this presentation, I will talk about how my two studies converge to suggest early visual sites (V1), where monocular information is available but awareness is not registered yet, is the most possible neural site for the occurrence of this collinear search impairment. I will also highlight the need to incorporate perceptual grouping into current attention models explaining why some targets are easier to search than others.