



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

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Departmental Seminar

Redundancy Masking and the Limits of Conscious Access to Visual Information



Dr. Bilge Sayim

Head
Psychophysics of Appearance Laboratory
Ecole Normale Supérieure (ENS)

11:30a.m. – 12:30n.n.

Room 1103-1104, 11/F
The Jockey Club Tower
Centennial Campus
The University of Hong Kong

Abstract

The human brain has limited processing capacities. To cope with the excess of information in the environment, the perceptual system selects, discards, and compresses information. For example, in typical visual scenes, only single stimuli—or subsets of stimuli—are selected by attention at any given moment, reducing the amount of information that needs to be processed. Another way to reduce information is through the compression of redundancies present in visual input: In redundancy masking, a phenomenon we recently discovered, the perceived number of items in repeating patterns is reduced. For example, when presented with three identical items in the visual periphery, observers often report seeing only two items. Here, I will discuss how limits of conscious access to information and the compression of visual input in redundancy masking are key characteristics of the visual system that enable the human brain to cope with the abundance of information in complex environments.

About the Speaker

Bilge Sayim, Ph.D., is head of the Psychophysics of Appearance Laboratory and vision scientist at the Ecole Normale Supérieure (ENS) and the CNRS in Paris, France. He studied Psychology and Computer Science in Kiel (Germany) and as a Fulbright scholar at the UC San Diego, before obtaining a PhD in Neuroscience at the EPFL in Switzerland. After his Ph.D., he was a postdoc in Paris and on a Marie-Curie grant at the KU Leuven, followed by an SNF-Professorship at the University of Bern in Switzerland. Dr. Sayim investigates how the visual brain selects, integrates and compresses information. He develops new empirical methods to investigate visual experience beyond the typically constrained categories used in psychophysical experiments. Recently, Dr. Sayim and his team discovered a visual phenomenon in which redundant information is compressed (“redundancy masking”), revealing how the visual system efficiently encodes and prioritizes perceptual information.

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

<https://hku.zoom.us/j/6985555998?pwd=V05yTGJWNTIzazd2OFZ0Q3FRReHVkdz09>

Meeting ID: 698 555 5998 | Password: Psyc

~ All are Welcome ~

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