Why We Can't Find a Face in the Crowd

Spotting a friend in a crowd can be nerve-wracking.

New research suggests your brain processes this sea of faces as a collection of blurred lines and edges. The result: an indecipherable jumble.

The phenomenon is called "crowding" and occurs when a person fails to recognize an individual object in a cluttered environment.

"Crowding may reveal one of the fundamental mechanisms the visual system uses to consolidate or filter a great deal of information into a very few meaningful chunks," said David Whitney, a psychologist at the Center for Mind and Brain at the University of California, Davis.

Whitney and his colleagues conducted five experiments to measure participants' recognition of a familiar face or house located in a crowded display of other faces or houses.

The participants had the most trouble identifying target faces surrounded by upright faces, as would be seen in crowds.

When viewing images of houses or upside-down faces, participants had no difficulty recognizing the target object.

"If vision scientists and engineers are to develop an efficient and realistic artificial visual system, they will almost certainly benefit from using the human visual system as a model," Whitney said.

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