How the brain searches for objects of interest

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A study based on the classic book character Where's Waldo? has taken a major step towards unravelling how the brain searches for objects of interest.

During the study, researchers at Barrow Neurological Institute at St. Joseph's Hospital and Medical Centre asked participants to find Waldo. While the participants searched, the researchers recorded their eye movements simultaneously.

The results of the study showed that the rate of microsaccades - tiny, jerking-like movements of the eye - dramatically increased when participants found Waldo.

This discovery helps explain human searching behaviour, which can assist us in finding keys on a cluttered desk or recognizing a child's face on a playground, said Dr. Susana Martinez-Conde.

The role of microsaccades in visual perception has been a highly debated, and vaguely understood topic among researchers, since long. And now the findings may help explain the correlation between microsaccades and search behaviour, both in the normal brain, and in brains with visual or eye movement deficits.

We now know there is a direct link between microsaccades and how we search for objects of interest. This link can help with future advancements such as creating neural prosthetics for patients with brain damage or machines that can see as well as humans, said Martinez-Conde. (ANI)