

Brain cap gives scientists a better look at brain behavior

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No, it's not a swimming cap, but it is making a splash in the field of brain science. This electroencephalography—or EEG—cap monitors electrical activity in the brain and has been helping scientists at Johns Hopkins understand what we pay attention to—and what we ignore.

"When we perform these tests, we present a test subject with [visual stimuli](#), and then we create a time-locked image of what is happening in the brain at the exact same time," says Corbin Cunningham, a pre-doctoral fellow at the Science of Learning Institute at Johns Hopkins. "It's a very versatile tool. The work I do is mostly visual, but many people use the EEG to understand the role of emotion, or surprise, or auditory distractions."

Cunningham has studied [distraction](#) since 2010 and has conducted studies investigating how distracting junk food is, as well as how to optimize visual searching by knowing what not to look for. But his research using the EEG is at a far more fundamental level.

"We're using the EEG brain cap to identify the neural mechanisms of distraction. It's very basic work," he says, but adds that understanding these foundational principles of brain activity and distraction will allow him and his colleagues to scale their studies up to real-world scenarios.

"What we're interested in is, 'How can we reduce distraction and get you more focused?'" he says.

Provided by Johns Hopkins University

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