

10/8/20 CI Music Hour Recap

Hello, everyone!

Recap

Neuroscientist Dr. David Eagleman gave a thought-provoking presentation about his work and research involving how humans perceive reality. All of his research surrounds a fundamental question: Can we create new senses for humans?

Dr. Eagleman explained that human senses limit our reality, and our brains sample a little bit of the world around us. Each animal has its own window on reality, or "umwelt," and we don't miss the sensory experiences that we don't have (eg: a bloodhound's extreme sense of smell, a bat's supersonic hearing) because our brains don't have a reference for what those heightened realities would be like. When it comes to technology augmenting human sensory experiences, Dr. Eagleman mentioned that initially scientists and doctors didn't think tech devices would be compatible with the body because of the lack of reference and because technology doesn't have a biological language. He went on to explain that the opposite has happened.

In his explanation of the "Potato Head" model of evolution (in which we add/subtract sensory pieces, like on a Mr. Potato Head toy), Dr. Eagleman stated that the brain figures out the data it is provided through peripheral devices (our senses/sensory organs). If a peripheral device is removed, the remaining devices will take over to process reality. If new peripheral devices are added, meaning will be constructed from those sensory experiences. This is where his latest research project, Buzz, comes into play. Initially, Dr. Eagleman created and experimented with a vest that had multiple vibrating sensors reflecting sounds as a sensory substitution for the Deaf. After sensory training with the vest, participants were able to derive meaning from the vibrations without conscious intervention. His company, Neosensory, scaled down the vest into the Buzz band, which is available now through the company website and [Amazon](#).

Dr. Eagleman's team has other active projects besides Buzz. Notably, the lab is working on prosthetics training and artificial perception for drug-sniffing dogs. He is also the scientific advisor for the show *Westworld*.

Next session

Julianne and I will be leading this week's CI Music Hour! We have a few interactive activities planned, as well as some prep work for an upcoming session on Music Production in November.

Have a great weekend!
Chrysa and Julianne