

Text Messaging May Be Altering Our Brain Waves

By Paige Towers • July 6, 2016 at 6:51pm

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We're texting more than ever. Concertgoers

spend a month's rent on frontrow seats only to peck out #humblebrags to friends during the encore. People get amped to meet up on Fri yay night only to stand around and stare at their phones

. And 'workplace texting' is now a formally recognized issue. Although not as dangerous as

texting while driving, firing off workplace emoji missives can distract employees from spreadsheets, quarterly reports and the like. Texting has entered our lives in such a way that the act may be changing the way our brains work too.

How so? By monitoring electrical brain activity through EEG, researchers lead by William Tatum, a professor of neurology at the Mayo Clinic College of Medicine in Jacksonville, Florida, found that firing off texts on smartphones (and in a few cases, iPads) triggered a new "texting rhythm" that's different from any previously seen brain waves. The team, who published their findings in the journal

Epilepsy & Behavior, did not see the unique rhythm when participants performed other (different but similar) nontexting tasks.

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Once Tatum and colleagues confirmed the texting brainwave in a trial study, they moved on to formal, largescale investigation. During the course of a year and a half, the team used EEG to monitor the brain waves of 129 participants who engaged in ‘spontaneous text messaging.’ Participants also took part in cognitive and speech tasks as well as other finger motions, including tapping and making phone calls. Ultimately, only 1 in 5 of the subjects in the study showed the ‘texting rhythm.’ But, those who exhibited the rhythm did so every time they texted.

It’s unclear to researchers why this ‘texting rhythm’ appeared, but it could relate to the fact that texting is a unique experience that occurs on a small screen — thus requiring more concentration — and combines motor skills with mental activity while also engaging auditoryverbal parts of our brain.

Why this only happened in roughly 20 percent of the patients is also a bit of a head scratcher. Some of the patients had a

history of epileptic seizures, but there was no distinction between those subjects and those who don't. Nor was there any correlation found between patient demographic information and the unique brain waves.

So, while the implications of this study are unknown, these initial findings are exciting — especially considering frequency at which people fire off texts. As Dr. Tatum states, “There may be an impact upon the gaming industry, brain computer interfacing and upon driving legislation.” He also noted that there could be an effect on our sleep continuity, but more research on brain activity and technology is needed. We'll be sure to keep our eyes out for any future research on the ‘texting rhythm,’ — and consider the possible blip in brain activity every time we send an emoji-fueled message to a friend. #Yolo.

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