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Deos it mttær waht oreðr the ltteers in a wroð are?

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This meme has come up in my Facebook feed a few times:

Aoccdrnig to rscheearch at Cmabrigde uinervtisy, it deosn't mttær waht oreðr the ltteers in a wroð are, the olny iprmoetnt tihng is taht the frist and lsat ltteres are at the rghit pclae. The rset can be a tatol mses and you can sitll raed it wouthit a porbelm. Tihs is bcuseae we do not raed ervey lteter by it slef but the wroð as a wlohe.

"Aoccdrnig to rscheearch at Cmabrigde uinervtisy, it deosn't mttær waht oreðr the ltteers in a wroð are, the olny iprmoetnt tihng is taht the frist and lsat ltteres are at the rghit pclae. The rset can be a tatol mses and you can sitll raed it wouthit a porbelm. Tihs is bcuseae we do not raed ervey lteter by it slef but the wroð as a wlohe."

A long-time Cambridge Brain Sciences user and friend of the site, Jason from Sacramento, sent us [this link](#), in which an actual researcher from the University of Cambridge investigates the accuracy of the meme.

It turns out that there is a little bit of truth to it. While nobody at Cambridge has looked at this specific topic, other researchers have. One study found that jumbling the internal letters, like in the meme, did slow down reading, but not by much (about

11%). The order also matters; the further the letters are from their original place in the word, the harder the word is to read. The human brain does some incredible processing to figure out even jumbled letters, but it is not completely oblivious to errors either. As a writer, I'd say that's a good thing.

Perhaps it goes without saying that you should not believe everything you read on the Internet, especially when presented as a meme, but there is often some interesting science if you dig deeper and seek out the original sources.

This post was written by Mike Battista, a staff scientist at Cambridge Brain Sciences.

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