Science Has Great News for People Who Read Actual Books

 By [Rachel Grate](http://mic.com/profiles/39785/rachel-grate)  September 22, 2014

It's no secret that reading is good for you. Just six minutes of reading is enough to [reduce stress by 68%](http://www.kumon.co.uk/blog/reading-reduces-stress-levels/), and numerous studies have shown that reading keeps your brain [functioning effectively](http://www.neurology.org/content/early/2013/07/03/WNL.0b013e31829c5e8a) as you age. One study even found that elderly individuals who read regularly are [2.5 times less likely](http://abcnews.go.com/Health/story?id=117588&page=1#.UbIVc2RAR7t) to develop Alzheimer's than their peers. But not all forms of reading are created equal.

The debate between paper books and e-readers has been vicious since the first Kindle came out in 2007. Most arguments have been about the sentimental versus the practical, between people who prefer how paper pages feel in their hands and people who argue for the practicality of e-readers. But now science has weighed in, and the studies are on the side of paper books.

**Reading in print helps with comprehension.**

A 2014 study found that readers of a short mystery story on a Kindle were [significantly worse at remembering](http://www.theguardian.com/books/2014/aug/19/readers-absorb-less-kindles-paper-study-plot-ereader-digitisation) the order of events than those who read the same story in paperback. Lead researcher Anne Mangen of Norway's Stavanger University concluded that "the haptic and tactile feedback of a Kindle does not provide the same support for mental reconstruction of a story as a print pocket book does."

Our brains were not designed for reading, but have adapted and created new circuits to understand letters and texts. The brain reads by constructing a [mental representation of the text](http://www.sciencedirect.com/science/article/pii/S1071581905001722) based on the placement of the page in the book and the word on the page.

The tactile experience of a book aids this process, from the thickness of the pages in your hands as you progress through the story to the placement of a word on the page. Mangen hypothesizes that the difference for Kindle readers "might have something to do with the fact that the fixity of a text on paper, and this very gradual unfolding of paper as you progress through a story is some kind of sensory offload, supporting the visual sense of progress when you're reading."

While e-readers try to recreate the sensation of turning pages and pagination, the screen is limited to one ephemeral virtual page. Surveys about the use of e-readers suggest that this affects a reader's [serendipity and sense of control](http://books.google.com/books/about/Electronic_journal_literature.html?id=YSFlAAAAMAAJ). The inability to flip back to previous pages or control the text physically, either through making written notes or bending pages, [limits one's sensory experience](http://www.scientificamerican.com/article/reading-paper-screens/) and thus reduces long-term memory of the text.

**Reading long sentences without links is a skill you need — but can lose if you don't practice.**

Reading long, literary sentences sans links and distractions is actually a serious skill that you lose if you don't use it. Before the Internet, the brain read in a [linear fashion](http://www.washingtonpost.com/local/serious-reading-takes-a-hit-from-online-scanning-and-skimming-researchers-say/2014/04/06/088028d2-b5d2-11e3-b899-20667de76985_story.html), taking advantage of sensory details to remember where key information was in the book by layout.

As we increasingly read on screens, our reading habits have adapted to skim text rather than really absorb the meaning. A 2006 study found that people read on screens [in an "F" pattern](http://online.wsj.com/articles/read-slowly-to-benefit-your-brain-and-cut-stress-1410823086?mod=e2tw--), reading the entire top line but then only scanning through the text along the left side of the page. This sort of nonlinear reading reduces comprehension and actually makes it more difficult to focus the next time you sit down with a longer piece of text.

Tufts University neuroscientist Maryanne Wolf [worries that](http://www.washingtonpost.com/local/serious-reading-takes-a-hit-from-online-scanning-and-skimming-researchers-say/2014/04/06/088028d2-b5d2-11e3-b899-20667de76985_story.html) "the superficial way we read during the day is affecting us when we have to read with more in-depth processing." Individuals are increasingly finding it difficult to sit down and immerse themselves in a novel. As a result, some researchers and literature-lovers have started a "slow reading" movement, as a way to counteract their difficulty making it through a book.

**Reading in a slow, focused, undistracted way is good for your brain.**

Slow-reading advocates recommend at least 30 to 45 minutes of daily reading away from the distractions of modern technology. By doing so, the brain can reengage with linear reading. The benefits of making [slow reading](http://online.wsj.com/articles/read-slowly-to-benefit-your-brain-and-cut-stress-1410823086?mod=e2tw--) a regular habit are numerous, reducing stress and improving your ability to concentrate.

Regular reading also increases [empathy](http://www.plosone.org/article/info%3Adoi/10.1371/journal.pone.0055341#s4), especially when reading a print book. One study discovered that individuals who read an upsetting short story on an iPad were [less empathetic](http://www.theguardian.com/books/2014/aug/19/readers-absorb-less-kindles-paper-study-plot-ereader-digitisation) and experienced less transportation and immersion than those who read on paper.

Reading an old-fashioned novel is also linked to [improving sleep](http://psychcentral.com/lib/12-ways-to-shut-off-your-brain-before-bedtime/0006577). When many of us spend our days in front of screens, it can be hard to signal to our body that it's time to sleep. By reading a paper book about an hour before bed, your brain enters a new zone, distinct from that enacted by reading on an e-reader.

Three-quartersof Americans 18 and older [report](http://online.wsj.com/articles/read-slowly-to-benefit-your-brain-and-cut-stress-1410823086?mod=e2tw--) reading at least one book in the past year, a number which has fallen, and e-books currently make up between [15 to 20%](http://www.scientificamerican.com/article/reading-paper-screens/)of all book sales. In this increasingly Twitter- and TV-centric world, it's the regular readers, the ones who take a break from technology to pick up a paper book, who have a serious advantage on the rest of us.

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I'm an avid reader, an enthusiastic eater, a slow but determined runner, and a proud feminist. And a smiler. I'm a big fan of smiles. @RachelSGrate austenfeminist.wordpress.com

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**What did you learn from this article?**

**Do you believe what the article is saying about the benefits of reading traditional books? Why or why not?**

**How many books do you read in a year? Explain how important reading is to you.**

**Do you prefer traditional books or e-readers? Why?**

**Will the information in this article change your reading habits?**