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# Reading

*Not a happy accident*



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**Grant Williams**

**L**ET'S BE honest. Reading—what you're doing right now— isn't something you somehow 'evolved' to do. It's not something which would, for example, have helped your ancestors avoid being eaten by a sabre-toothed cat. Yet here you are, most likely reading this article fluently and without effort. Your brain is recognizing symbols, decoding phonemes (the sounds the symbols represent), processing grammar, and extracting meaning all at the same time. That's not an evolutionary fluke. It is powerful evidence of design.

It is often said that reading is 'cultural invention', which in part is true. Writing was developed by human societies, not discovered in nature. But herein lies the twist—our brains were already prepared to read writing. This is not mere luck; it's part of the plan.

## Brains prepared from the beginning

Neuroscientist Stanislas Dehaene refers to the 'neuronal recycling' hypothesis about reading. According to this idea, our brains did not evolve new structures specifically for reading. Instead, they repurposed existing neural systems, particularly those responsible for visual processing and spoken language.<sup>1</sup>

If so, this is not evidence of gradual evolution. It reflects adaptive efficiency. And it is exactly what one would expect if human beings were created by God with the innate capacity for symbolic thought and communication.

When introduced to non-literate cultures, reading can often spread quickly and, interestingly, particularly when the Bible is involved. E.g., in the 9<sup>th</sup> century, brothers Cyril and Methodius evangelized the Slavs in Eastern Europe, and created the Galgolic alphabet with

uniquely shaped letters for translating the Bible and Christian texts. This was the first Slavic alphabet. Their students and followers developed the easier-to-use Cyrillic alphabet used in many Slavic nations today. This was based on Greek letters<sup>2</sup> combined with some Galgolic letters for sounds not available in Greek.

Closer to modern times, consider the historical data from missionary efforts such as those of Wycliffe Bible Translators and its sister organization, now SIL International. They worked with many ethnic groups that were originally oral cultures; i.e., they had no written language at all when the missionary translators arrived. Entire ethnic groups developed literacy after the introduction of Scripture. Often, this meant giving written form to

spoken languages from scratch. These included the Mofu-Gudur (Cameroon), the Tagbanwa people (Philippines), and the Yagua people (Peru/Colombia).

In Papua New Guinea, Wycliffe missionaries helped develop written versions of over 100 languages, teaching literacy alongside Scripture.<sup>3,4</sup> Many communities achieved functional literacy within a generation.<sup>4</sup>

The global literacy work of American missionary Dr Frank Laubach demonstrated that non-literate adults could become readers through simple primers. His approach, which involved training new readers to teach others, proved effective in more than 60 countries and in over 300 languages.<sup>5</sup>

A culture without written language does not always develop literacy quickly, though. Results vary depending on cultural context, community involvement, and language structure. Yet they consistently reveal something profound: the human brain is remarkably suited to reading when exposed to meaning-rich content like the Bible.

### The genetic clues—more than coincidence

Research into genes such as *Dcdc2* and *KIAA0319* has uncovered links to reading ability and developmental dyslexia. These genes shape long-term brain function in two ways. First, by influencing neuronal migration (how neurons ‘travel’ to their correct position prior to birth). Second, they influence the precision of how the brain’s auditory cortex processes auditory signals. Both factors are crucial for reading and language comprehension.<sup>6,7</sup>

These genes are usually studied for their *dys*functions. By seeing what goes wrong when a gene is damaged by mutation, one can gain insight into what the gene does when performing its normal complex tasks. This of course implies something carefully designed for its purpose, which will be disrupted when an accidental change—a mutation—happens. When these particular genes suffer mutations, people may struggle to read, despite normal intelligence and education. Yet this only

highlights how the typical design functions so effectively.

For example, animal studies have shown that when *Dcdc2* is disrupted, the ability to discriminate sounds suffers.<sup>8</sup> In humans, several variants of *KIAA0319*, believed to be caused by mutation, correlate with ‘noisier’, less accurate sound processing. This contributes to reading difficulties.<sup>9</sup>

If literacy were purely cultural, then genetic factors would matter very little. However, they do. That points directly to a biological readiness. We have been suitably equipped.

### Designed to read

Importantly, however, this does not imply genetic determinism. This is the belief that genes overwhelmingly determine our life’s outcomes, downplaying the important role of upbringing, education, social interactions, cultural norms, and individual choices. Nor does it mean that a ‘reading module’ exists at birth. Instead, it affirms that most people are biologically prepared to read. Genes create the potential, not a guarantee. Reading is not automatic; it needs to be taught. But the brain is clearly predisposed to being able to develop this skill.

### Symbolic thought: a built-in feature

Even before children learn to read, they demonstrate symbolic thinking. They draw pictures, pretend a banana is a phone, and understand that letters represent sounds. These behaviours are not evolutionary leftovers. They are marks of a mind designed for abstraction. Cognitive studies show that infants as young as six months can recognize abstract patterns and can form categories.<sup>10,11</sup> Toddlers grasp the idea of symbolic representation, which is essential for reading, well before receiving formal instruction.<sup>12</sup>

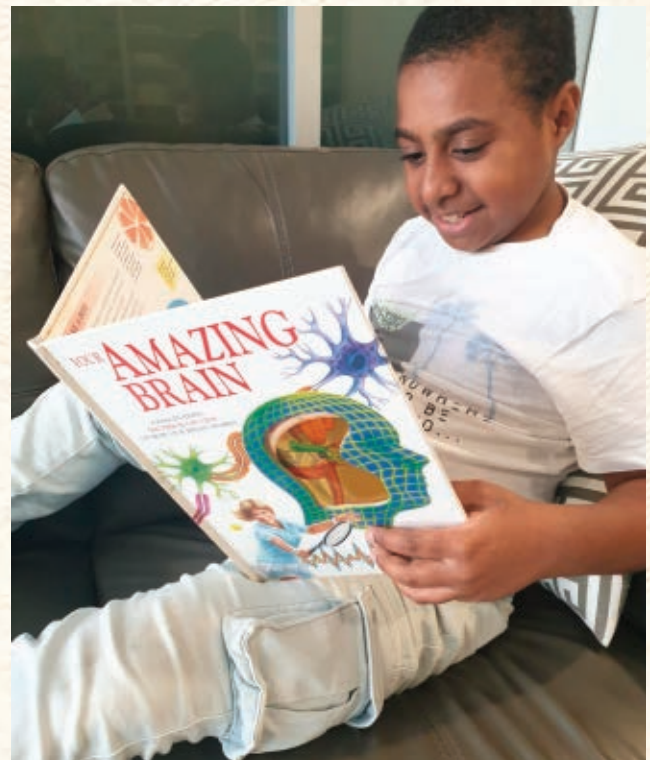
This ability to connect symbols with meaning is no accident. God gave us symbolic capacity from the beginning. Reading is one of the most remarkable expressions of that gift.

### More than a mere ability—a spiritual calling

The Bible was never meant to be merely heard. It was meant to be read. Again and again, Scripture emphasises reading and writing. God’s Word was written on tablets or on scrolls, read aloud in assemblies, and studied diligently.

From Moses at Sinai to Ezra’s reading of the Law, from the synagogue scrolls to the letters of Paul, the act of reading has always been central to the life of faith (Deuteronomy 6:9; Nehemiah 8:8; Revelation 1:3). Jesus repeatedly claimed that what one reads in Scripture is the very word of God, e.g., “... have you not read what was said to you by God?” (Matthew 22:31)?

Neuroscientists have uncovered the remarkable adaptability of the human brain for reading. Where we part ways with secular wisdom is not in the evidence, but in its meaning. Secular science sees reading as a cultural invention shaped



# Writing and Babel

Reading and writing are of course two sides of the same coin. The earliest documented evidence of the emergence of writing systems in the post-Flood world is in Mesopotamia and Egypt, around 3400 to 3200 BC by secular chronologies. Both regions are relatively close to the site of the Babel language division in Peleg's days (Genesis 10:25, 11:1–9). And both are widely acknowledged as the places where complex civilizations emerged the earliest. That should really be 're-emerged', since we know that city-building, farming, herding, music, and metalworking were all already underway within Adam's lifetime (Genesis 4:17–22). Not to mention the sophistication required to build and outfit the massive Ark.

The confusion of languages presumably meant that any pre-Babel written language would have been instantly incomprehensible. But once a society had again become stable and settled, it would not take long to develop (or redevelop) writing, which they would likely already know of in principle. They would also have the cultural technology and resources to be able to create and store written documents, whether as clay tablets or, e.g., papyrus scrolls.

Following the dispersion, migration to more distant regions would have taken much longer, possibly requiring generations of expanding settlement. Also, small migrating groups are known to readily lose technology and other cultural knowhow.<sup>1</sup> So, it's no surprise that it took longer for writing to emerge in civilizations further from the centre of dispersion.

E.g., in Anatolia (modern Türkiye), there is the Anitta Text in the Hittite language from around 1730 BC.<sup>2</sup> This text is the oldest known writing of an Indo-European language—the language family that includes English. The earliest oracle bone writing in China seems to have been around 1200 to 1050 BC. People migrating across the Bering land bridge, during the post-Flood Ice Age when sea levels were lower, settled North America. In due course human settlement extended down to Mesoamerica,<sup>3</sup> where the next independent development of writing is thought to have occurred around 500 BC.<sup>4</sup>

1. Wieland, C., Culture clash, *Creation* 17(3):42–44, 1995; [creation.com/culture-clash](http://creation.com/culture-clash).
2. The surviving texts themselves are thought to be copies, some of them produced a century later, others three centuries later, than this date assigned to the original.
3. A historical and cultural region spanning central to southern Mexico and parts of Central America, home to pre-Columbian civilizations with shared cultural traits.
4. The well-documented and deciphered examples of Mayan writing of that region are dated some 200–300 years later.

by neural constraints. We should see it as a capacity embedded in the human mind from the beginning, designed not by chance, but with purpose. Not least among those purposes: to read, to understand, and to respond to the Word of God.

## Designed to know God

Reading is not a biological accident. It is a convergence of neural structure, symbolic capacity, and spiritual significance. The design of the human

brain, the emergence of writing systems, and the global impact of the Bible all tell the same story.

We were made to read. We were made to read God's Word.

“Blessed is the one who reads aloud the words of this prophecy ...” (Revelation 1:3). ■

## References and notes

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5. Good-bye to Frank Laubach, Apostle of Literacy, [christianity.com](http://christianity.com), 28 Apr 2010.
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