

George Miller ran experiments to see how well people could remember sequences of digits. In his studies, he showed participants a series of digits and a label, then later asked them to recall the label. He found that most people could remember about seven digits, give or take two.

But Miller wasn't completely happy with that result. A single digit doesn't hold much information, yet it still takes up space in our memory. He started thinking about what he called "chunks", groups of information that we remember as one piece. Even though he couldn't clearly define what a chunk was, he noticed that when people grouped information, like turning separate words into a full sentence, they could remember a lot more overall while still keeping the same number of chunks.

In another study, participants were asked to remember a long list of digits, but this time they grouped them into sets of five. Some people were able to recall up to 40 digits this way. Miller explained this by saying, "Recoding is an extremely powerful weapon for increasing the amount of information that we can deal with."

Another example of all of this is how we remember phone numbers, we unconsciously group numbers together, remembering chunks of the digits and overtime remembering the entire phone number as one single chunk.

Using my own phone number as an example, 07379459660, it's difficult to remember from first seeing it. However, by chunking my own relevance of a chunk, I can remember it a lot more.

07379459660

07379459660

-

<https://www.historyofinformation.com/detail.php?id=3384#:~:text=Naive%20subjects%20can%20only%20remember,%2C%20and%20remember%20the%20names>.

Norman, J. M, George Miller publishes "The magical number seven, plus or minus two". History of Information

<https://pmc.ncbi.nlm.nih.gov/articles/PMC4486516/>

Cowan, N. (2015). George Miller's magical number of immediate memory in retrospect: Observations on the faltering progression of science. Psychological Review

<https://labs.la.utexas.edu/gilden/files/2016/04/MagicNumberSeven-Miller1956.pdf>

Miller, G. A. (1956). The magical number seven, plus or minus two: Some limits on our capacity for processing information. Psychological Review

<https://www.psychologistworld.com/memory/millers-magic-number>

Miller's Magic Number: What Are The Limits Of Your Short Term Memory? (2019).
Psychologistworld.com; Psychologist World

-

I used AI to help me make my script make more sense and flow more thoroughly for my presentation.

George Miller experimented with participants remembering a series of digits; presenting a stimulus and a label, and asking them to recall the label later. Through this, he found the medium number of successful recalling was 7, plus or minus 2.

However, he did not feel satisfied with his findings, as a digit is such a small amount of information yet it takes up a chunk of your memory. Despite not knowing how to constitute a 'chunk', by bringing more information from a word to a sentence and having that as the chunk, people could remember so much more but still have the same capacity as before.

Another experiment was to remember another series of digits but mentally group them of one of five, to which it had sufficient findings of some subjects remembering 40 digits. He quotes "The point is that recoding is an extremely powerful weapon for increasing the amount of information that we can deal with."

This is a solid summary of George Miller's classic work on memory ("The Magical Number Seven, Plus or Minus Two"), but it could use a little tightening and clarity for smoother flow and precision. Here's a refined version that keeps your meaning but improves readability and academic tone:

Revised version:

George Miller conducted experiments on participants' ability to remember sequences of digits. In these studies, he presented a stimulus and a corresponding label, then later asked participants to recall the label. He found that the average number of items people could recall successfully was about seven, plus or minus two.

However, Miller was not fully satisfied with this finding, as a single digit represents a very small amount of information, yet still occupies one "slot" in memory. Although he could not precisely define what constitutes a "chunk," he proposed that by grouping information—such as combining words into meaningful sentences—people could remember much more information while still maintaining the same number of chunks.

In another experiment, participants were asked to recall a longer series of digits, but to group them into chunks of five. Remarkably, some participants were able to recall up to 40 digits. Miller concluded that *"recoding is an extremely powerful weapon for increasing the amount of information that we can deal with."*