



Preparing for exams

5. Chunking

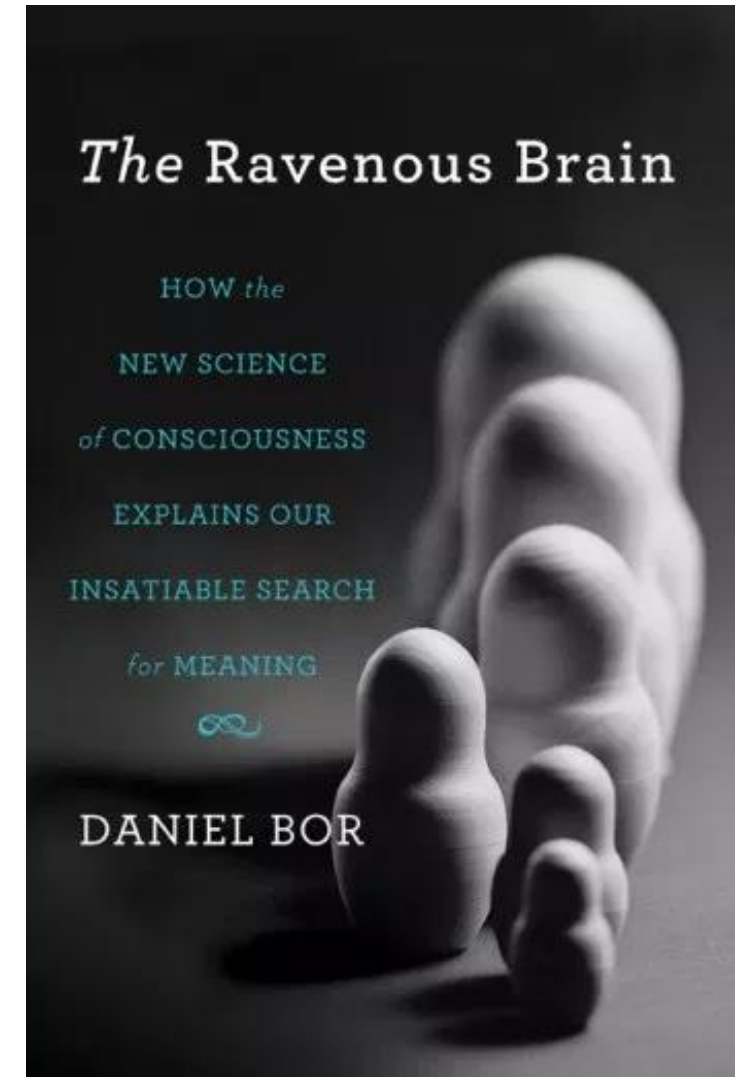
What is the Chunking Technique?

- It is a technique which can improve your **memory**.
- Chunking is the process of taking individual pieces of information (**chunks**) and **grouping them into larger units**.

By grouping each piece into a large whole, you can improve the amount of information you can remember.

The Science of chunking

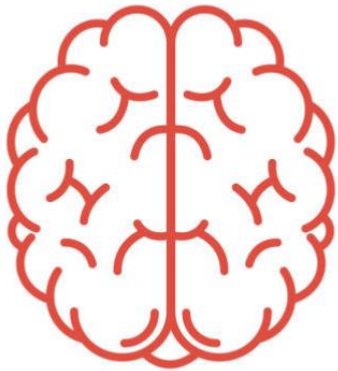
Daniel Bor, author of *The Ravenous Brain* states that chunking represents our ability to "hack" the limits of our memory.



Experiment: The Power of Chunking

- An undergraduate volunteer took part in a psychology experiment.
- He had an average IQ and memory capacity.

- Researchers read to him a sequence of **random digits** and asked him to **say the digits back** in the order he'd heard them.
- If he was **correct**, the next trial sequence would be **one digit longer**; if **incorrect**, one digit shorter.



3 9 8 0 7 6 2 1

Experiment: The Power of Chunking

The twist....it took place over **two years, where the young man did this task for an hour a day four days a week.**



The Experiment: What happened?

Initially, he was able to

20 months later, he was

How did he do this?

sequence

digits long

3 9 8 0 7 6 2

9 9 8 0 7 6 2 8 5 4
1 9 8 2 7 8 2 8 5 4
3 9 2 0 7 1 2 8 6 9
3 9 8 0 1 1 2 2 5 3

1 9 2 0 7 6 2 8 5 3
2 7 3 4 0 1 8 2 5 4
5 1 8 3 7 7 2 8 4 5
9 9 4 1 0 8 2 6 5 9

The secret of chunking

- The young man was a **track runner**.
- He decided to see certain number groups as running times, for instance, 3492 would be transformed into 3 minutes and 49.2 seconds - around the world-record time for running the mile.
- He was using his memory for well-known number sequences in athletics to prop up his working memory.



The secret of chunking

He then realised he could combine each running time into a superstructure of 3 or 4 running times — and then group these superstructures together again.

He just learned to cram more and more into each item in a pyramidal way, with digits linked together in 3s or 4s, and then those triplets or quadruplets of digits linked together as well in groups of 3, and so on.

Why is 'chunking' useful?

- Our memory system becomes far more efficient.
- Help you to recall the relevant information in your exams.
- Information becomes easier to retain and recall.
- Improves our creativity.



The chunking process

1. Break down larger amounts of information into smaller units.
2. Identify similarities or patterns.
3. Organise the information.
4. Group information into manageable units.



The chunking process

Use **HEADINGS** and **TITLES** for different sections

Use **TABLES** to summarise **LARGE AMOUNTS of DATA**

Use **BULLET POINTS** to summarise and **CLARIFY IMPORTANT POINTS.**

Combine quick **ILLUSTRATIONS** with **TEXT** to create **VISUAL ASSOCIATIONS.**

Top tips to effective chunking

1. Practice:

- Challenge yourself to remember lists of things such as vocabulary words or important dates.
- As you become better at remembering larger chunks of information, continue to challenge yourself to remember even more.

2. Look for Connections:

- As you are creating groupings, look for ways to relate them to each other in meaningful ways.
- Think about what they have in common and what makes sense.

Top tips to effective chunking

3. Associate:

Linking groups of items to things from your memory can also help make things more memorable.

4. Incorporate other Memory Strategies:

For example, you might use mnemonics as a way to chunk different units of information. If you need to remember a list of things—such as buying **figs, lettuce, oranges, apples, and tomatoes**—you can create a word out of the first letters e.g. **"FLOAT"**.

Once you remember the keyword, you will then be better able to recall the items represented by each letter of the acronym.

Top tips to effective chunking

5. Separate your revision

- Separating revision into relevant sections can help you digest everything and you can remember it more easily.
- If you can create **links** between different bits of information and put them in meaningful categories it can help you remember them better.



Reflect

How can you use the concept of chunking in your revision this week?

What types of information may this approach be most useful for?

Form patterns

Develop your
tactics

Make
connections

