Imagine that your brain was unable to remember things in order, as if every memory was just a snapshot, randomly stored in the brain.

“The ability to organise elements into sequences is a fundamental biological function essential for our survival,” the Kavli Institute writes in a press release.

If memories were not stored in order, we would not be able to communicate, find our way to places, or remember what we are doing right now. The world would cease to be a place that makes sense.

But how does the brain manage to store memories in the correct order?

Researchers at NTNU's Kavli Institute believe they have found the answer, recently published in the journal Nature.

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What the researchers found in the mouse brain was a pattern of nerve cells that moved in a sort of coordinated wave, “like rhythms in a symphony,” according to the press release. The wave moved slowly. It took two minutes for it to travel through the neural network before starting over again.

Even more exciting, according to the researchers, was that while the nerve cells surged forward, they also organised themselves into ordered sequences.

This finding constitutes the prototype for how the brain stores episodic memory, i.e., the events you remember from life.

This is an excerpt. Read the full article here