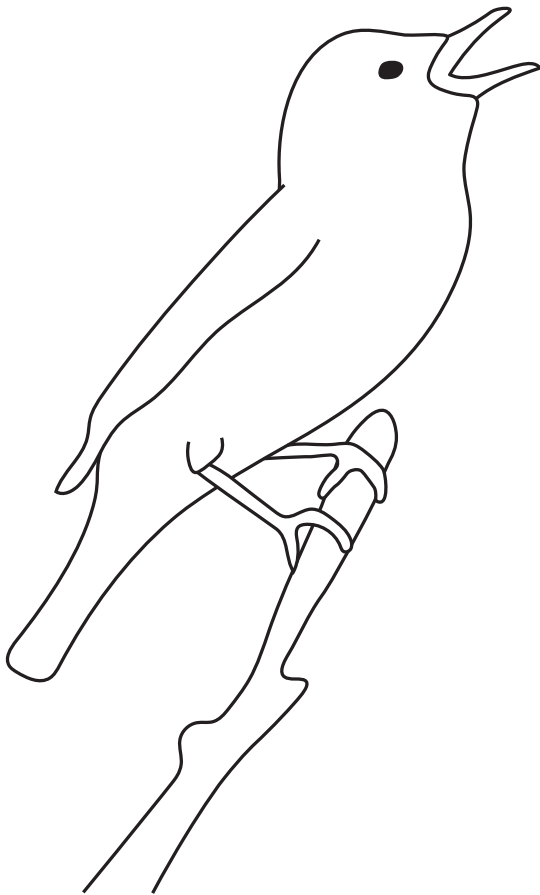
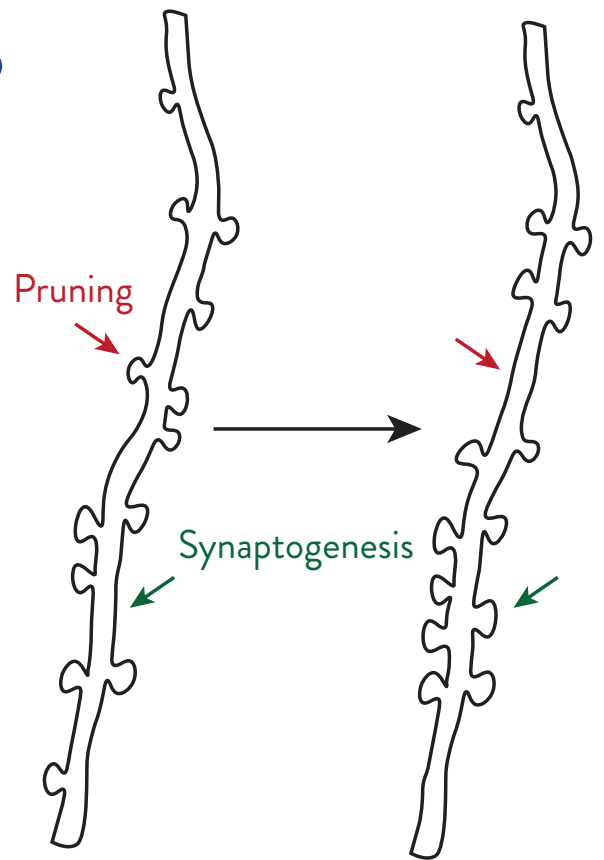


Do neurons change?

The Changing Brain

Neuroplasticity is a broad term that encompasses the many processes that allow the brain to change, taking in and storing new information in response to new experiences. One of the ways in which neurons in the brain display plasticity is by changing the strength and number of synapses, which are the locations where neurons communicate with each other. When neurons communicate frequently, new synapses can be formed in a process called **synaptogenesis**. These new synapses can be maintained if they are used often or removed in a process called **pruning**. These dynamic processes allow neurons to change how they communicate with each other.



Plasticity and Song

Songbirds are an important animal model for the study of neuroplasticity: for some species, the song they sing changes every year! Understanding how neuroplasticity happens in birds who learn new songs can provide insight into how the human brain makes and maintains new connections. More research with this interesting species might help us to understand our own capacity for plasticity and provide fixes for when things go wrong.

Plasticity Gone Wrong

What happens when the human brain loses its ability to make and keep new connections? What about when it makes too many new connections? Scientists are working on answering these and other plasticity-related questions, many of them using animal models, like the songbirds mentioned above.



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