

The Big Idea: Is It Time to Stop Talking About ‘Nature Versus Nurture’?

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When you hear people conversing in an unfamiliar language, why is it that you can’t even tell where one word ends and the next begins? If you are a native English speaker, why is it so challenging to get your mouth around a French or Hebrew “r”, which originates lower in the throat, or the “r” in Spanish or Italian, which is trilled on the tip of the tongue? Your ability to hear and make sounds, and to understand their meaning as language, is wired into your brain. How you acquire that wiring illuminates an age-old debate about human nature.

In the first few months of your life, your infant brain is bathed in all kinds of information from the world around you, through your senses. This sense data causes changes in your brain as your neurons fire in various patterns. Some collections of neurons fire together frequently, strengthening or tuning their connections and aiding learning. Others are used less and are pruned away, making room for more useful ones to form. This process of tuning and pruning is called plasticity, and it happens throughout your life, but enormously in the first few years.

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