The Spiky Profile of Autism

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There are over 43 quintillion possible configurations for a Rubik's cube

Imagine, then, how many complex ways Autistic brains can be different

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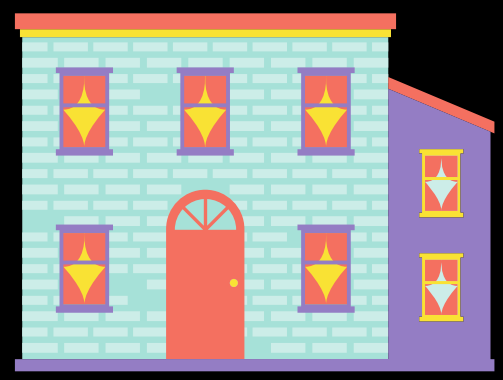
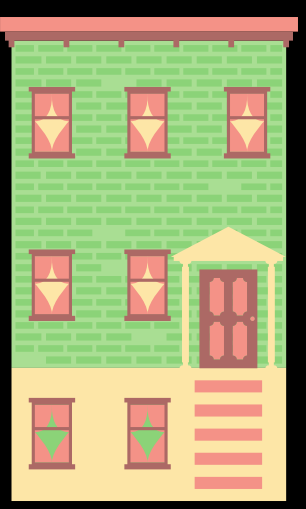
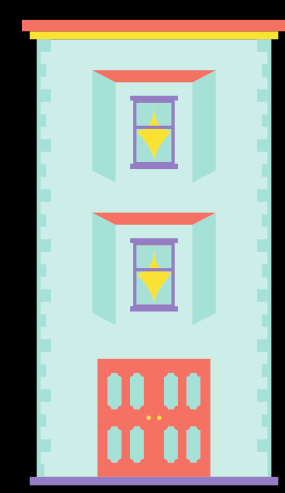
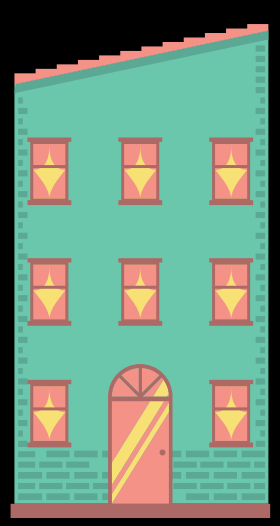
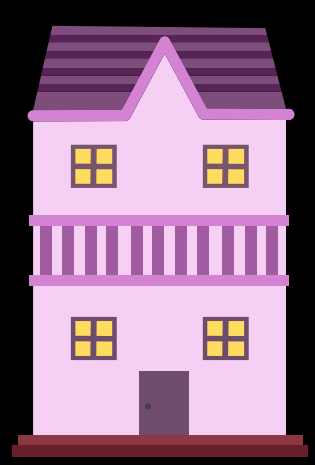
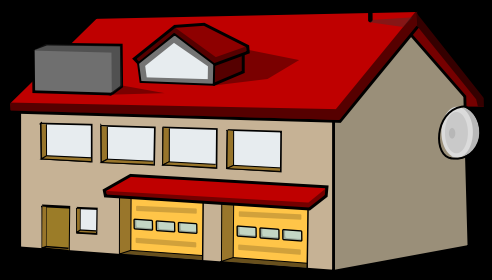




As a very oversimplified analogy, imagine the brain as a bunch of buildings. For most people, their buildings are similar in size, and the roads between them are similar in size.





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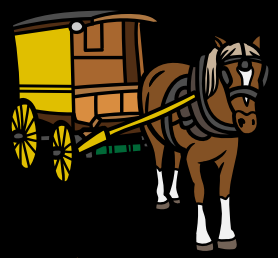
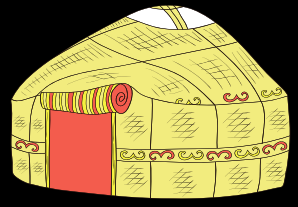
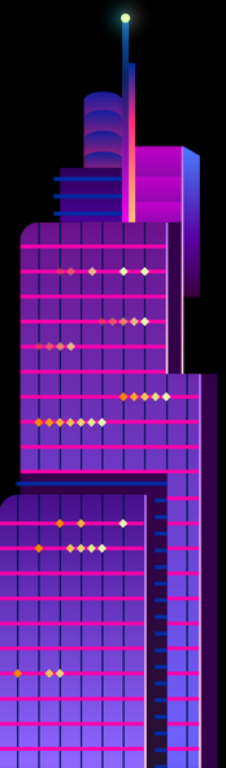
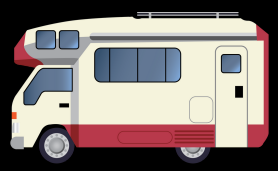
Imagine an autistic brain
with lots of buildings. There are skyscrapers, shacks, boat houses, RVs, yurts, bounce castles, medieval castles
with dragons in the moats, mom-and-pop corner stores, and tents.

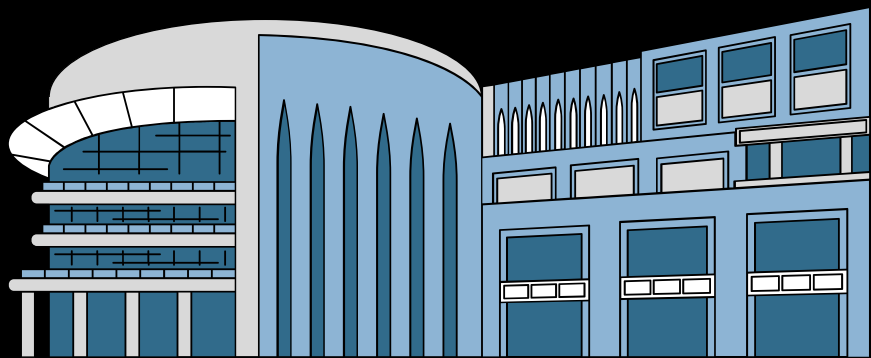


The paths to each of these buildings are all different. Some are 14-lane super-highways. Some are rocky footpaths, some have roadblocks that require you to detour through other buildings (synesthesia), and there are also standard two-lane highways.

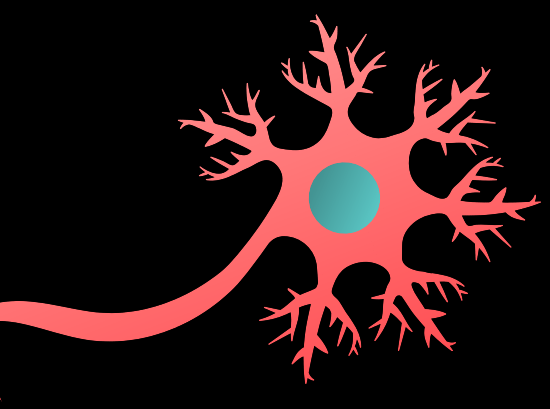






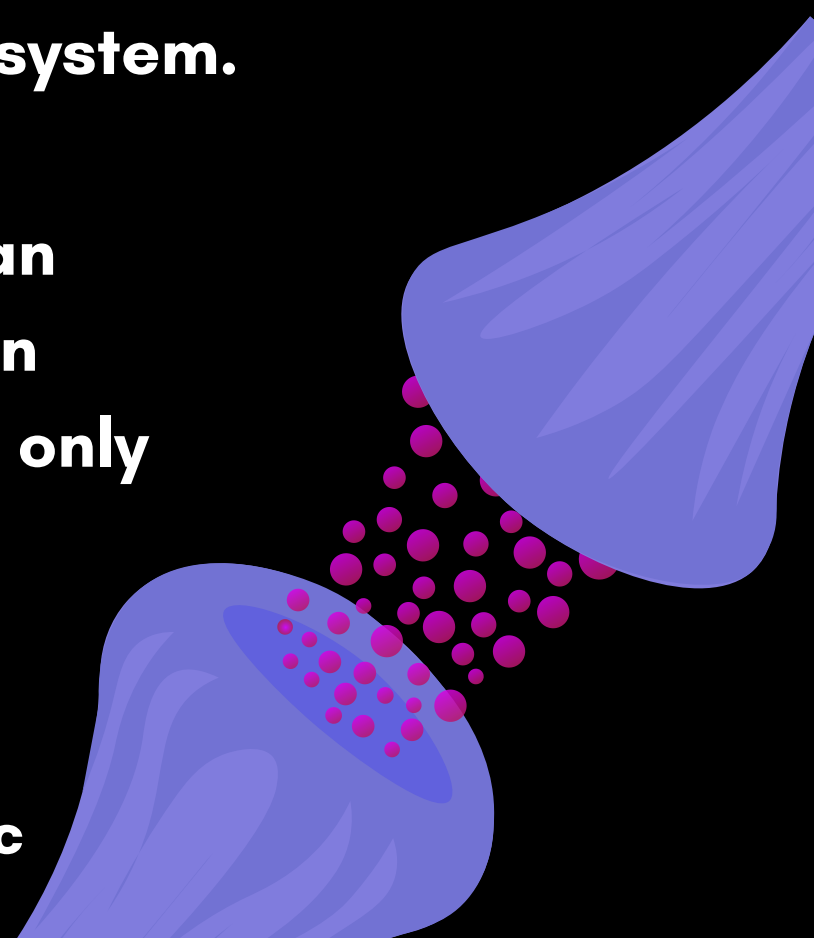


Some autistic brains are closer to looking like the map of a non-autistic brain, relatively speaking. Some are much less "balanced" with regard to neural (roads), chemical (traffic), and structual (capacity and function) distribution.



Again, this is oversimplified, but it helps to understand why some autistic people have giftedness in some areas and struggles in others and why the processing speed varies from sensory system to system.

A superhighway (hyperconnectivity) can take in lots of traffic (sensory input). An uphill foot path (hypoconnectivity) can only take a small amount of traffic before a jam happens (overstimulation).



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One autistic person may have an expansive warehouse for memory, but the path to get there is like an action movie with quicksand, caves, and steep mountainsides. Every time the person is interrupted, they have to start over. There are traps in the warehouse (PTSD). This person has a phenomenal memory but retrieval (processing) is difficult.

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An autistic person may have a superhighway to their music mall that houses a 64-part orchestra and museums and shops for each instrument, but their visual processing is a crumbling frontier cabin in the woods. This person may hyperfocus on music for obvious reasons and avoid visual stimuli.

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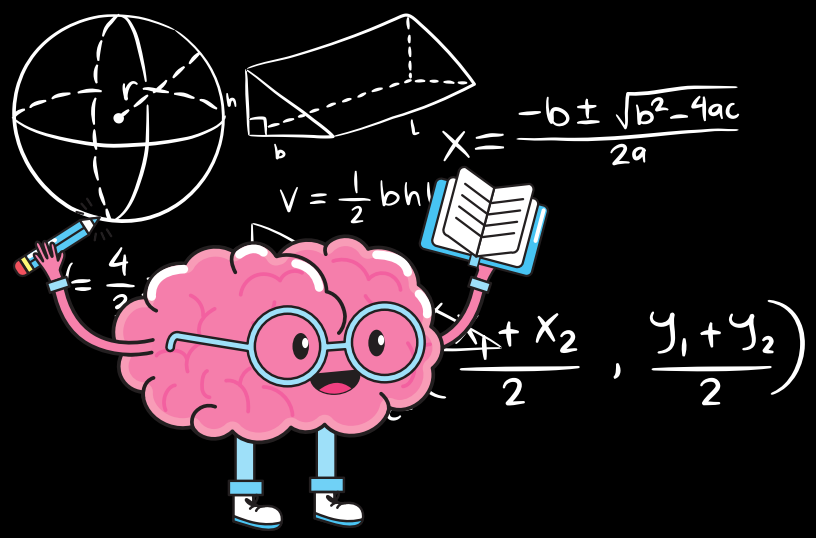

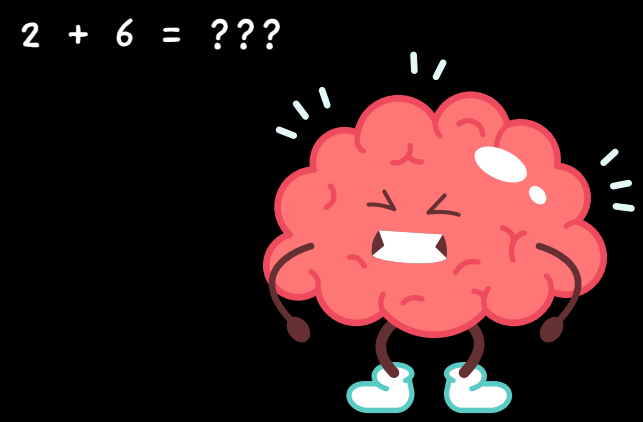

Having an uneven distribution of neural resources and development is what's known as the "spiky profile" in autistic and otherwise neurodivergent people. This is why some autistic people are math savants and others struggle with adding single digit numbers, or why some autistics need to spin, jump, and swing to stay regulated while some need stillness and prefer to paint, read, or watch videos. Still, others have quite "average" experiences of specific sensory systems.

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Accommodating for Spiky Profiles

Focus less on forcing traffic down narrow pathways (intervention)

Focus more on sending traffic to superhighways (strength-based learning)

Avoid traffic jams (overstimulation) by reducing traffic (external stimuli) to low-capacity areas

Get to know the terrain (learning profile) in depth and plan accordingly

Give time and space for traffic jams (over-stimulation) to clear after rush hour

Offer more control over directing traffic (child-led or person-centered learning)

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