

# W E D N E S D A Y I S I N D I G O B L U E

## Discovering the Brain of Synesthesia

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A Bradford Book

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## Introduction: Your Neighbor's Reality

Erica Borden watches weather patterns on a giant screen each day. She is a twenty-seven-year-old meteorologist with an expressive face framed by long dark hair. The weather patterns are shaping up for a beautiful day, and at the moment Erica is sharing a package of chocolate-covered raisins with her colleague Aviva. She has no reason to suspect there is anything unusual about her brain.

But from the day of her conception, a miniscule genetic change lurked deep in her chromosomes. This tiny change, expressing itself in her billions of brain cells, makes her reality different from her friend's.

Aviva sits nearby and pops a raisin in her mouth, also not suspecting that she and her friend experience a different world. Once, in college, she asked her roommate, "How do I know I see red the same way you see red? What if what you call red is what I call green?" They concluded they cannot know, but that it didn't matter how they saw it on the inside so long as they both agreed to call an apple "red." To this day Aviva continues to be intrigued by the idea that two people may see red differently. She doesn't know that the possibility of dissimilar experience goes much deeper than color, and she doesn't know that Erica's reality is measurably different than hers.

And so Erica and Aviva blithely sit next to one another sharing their raisins. When Erica tastes a chocolate-covered raisin on her tongue, she feels a nubbled texture on her fingertips. When she hears the voice of the weather announcer, she can't help but sense a deep indigo color that ripples in the upper left corner of her visual field. When she thinks of today—Thursday—the concept seems to occupy a particular region of space near her right shoulder. Erica's brain is like the weather system on the coast: all the elements interact because there are no barriers to keep

them from mixing. Erica's senses and concepts are open to each other, flowing and merging like weather streams.

On the other hand, things are neatly compartmentalized in Aviva's brain. A raisin is only a raisin. Voices are heard, not seen. Thursday makes her anticipate the weekend, but it has no location. Her brain is like the weather pattern in the rocky mountainous regions: isolation by a mountain makes weather in one spot independent of weather in the next range.

Erica and Aviva have no idea they perceive the world differently.

Most people's brains are compartmentalized like Aviva's.

Erica, on the other hand, enjoys an unusual condition called synesthesia.