

*VECTORS*

When my older sister Maddie was little, the story goes, she began her sentences with “because.” Unlike most two-year-olds, who wanted to know why things happened, she had a desire to explain herself and the world around her. Whether or not “because” made sense grammatically, it was important for her to say it. “Because I’m wearing my raincoat,” she’d said, gripping the sticky yellow snaps. At Dairy Queen, leaning against the metal counter, when I asked how our ice cream cones were dipped in chocolate: “Because they have special machines.” Then, when I wanted to know why I had to stay home while she went to kindergarten: “Because you’re not a person yet.” Maddie always liked to show she had the answers.

Now, when my physics teacher, Mr. Kozera, tells our class about vectors, quantities with magnitude and direction, I think of “because,” and of Maddie’s knack for certainty. Since vectors are such a mystery to me, I’m relieved when, taking a break from teaching one afternoon, Mr. Kozera tells us how he exercises. He goes to the gym three times a week to do bicep curls and use an elliptical machine, where he pumps his legs in circles. He doesn’t want to ruin his knees running on pavement.

Mr. Kozera says that there’s a mentally-disabled boy at his gym who listens to pop music, blaring the noise out from a flimsy Walkman. Mr. Kozera doesn’t actually say “mentally disabled” and instead identifies the boy called Jamal as “special,” this phrase with a turning of his right index finger next to his head. One day when Mr. Kozera tells us, when he was watching the small TV in front of his elliptical machine, he laughed out loud. Jamal, he says, must have thought Mr. Kozera was special too, because Jamal came over and hugged him.

Mr. Kozera reddens after telling this story and turns back to vector addition on the white board. Even though he says it's easy, I still haven't learned how to add vectors, which allow for the calculating of currents of rivers or crosswinds that sweep airplanes through breathy clouds. I erase my homework paper down to holes every night, but I still don't understand. Though maybe someone else could apply the Pythagorean theorem to my motion, my trajectory, I don't know how to, and I don't want to. Apparently, the characters in the word problems I am trying to solve in my physics book are having similar problems, since, according to my calculations, they are going negative distances across fields and cities. They all have names like Meiko or Jose, names that show the politically correct diversity of my purple textbook. I feel sorry that Meiko, Jose, and their friends are not reaching where they're trying to go.

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Over time, Maddie turned herself into an academic workhorse, translating Catullus at night in the library of her prep school. Like me, she loved ancient texts, how each sentence could be broken down into a set of conjugations, declensions, and cases, and the smell that came off the pages. Now she goes to nearby Yale, and even though she claims she only got in because our parents went there, I know that's not true.

These days, Maddie returns home on Sundays to lie with a hangover on the couch. My cheek against a quilt, our feet pressed together, we talk about her Latin class, where she writes essays about Vergil's arching similes. She's challenged, she admits, but can't find time between parties to study enough, so she might drop the class. Confessing this, Maddie looks desperate and lost, so I feed her good news: the young couple who lives in the house behind ours has a baby who's healthy; we're excited about this, because the umbilical cord was wound around the infant's neck at birth.

In the afternoon we walk past this couple's house and see Michael, a mentally disabled man who lives in a Tudor house down the street. I watch him glance at his gold-banded left hand nervously; according to neighborhood gossip, he's just married a woman with Down's syndrome, and he's not sure how to handle this new companionship after being confined to the clean blocks of my neighborhood, Spring Glen, for the twenty-nine years of his life so far. His helmet gleams as his thick bike wheels push up a hill. He's ridden miles through the neighborhood every day since I can remember, his jeans a nearly permanent blue blur through the living room window. Now, my sister looks after his long shadow. She's always been scared of him, so she raises one eyebrow, thin and spare as a feather.

A few days later, when I'm walking the dog, who is pulling me towards a maple shedding its warmth in a frenzy of red leaves, I see Michael on his bike, switching gears. Michael says hello to me, but then he sees police cars idling in the street and he tells me he's scared that they'll stop him from doing his daily ride. I want to leave so they don't arrest me, he says. I want to fly.

When I get home, I look up Michael's phone number in the White Pages and stare at the little numbers. Does Michael's house, too, carry the scent of cooking onions? Does he know to vacuum around his quiet slippers when dust chokes the air?

That night, doing physics homework, I clutch my hair with a fist. I don't know how to reach Michael, or how to envision the vectors that chart my flow, but I've decided I can learn the careful and accurate facts available to help me understand. I plan how I'll work: my progress may be slow, my calculations every night may not be perfect, but perhaps, in time, Meiko won't be walking backwards across the Golden Gate Bridge.

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. In class the next week, Mr. Kozera is more successful at concealing his personal life from us. One day, though, he shows us a video clip of himself skydiving in Newport, Rhode Island. Slatted light fills the classroom, and he tells us how good it felt to be out there in space, even if he did have to wear a dumb-looking jumpsuit. He appears motionless against the white sky, like he's still on the elliptical machine. This makes sense to me: gravity is weaker with air resistance and wind. With these two vectors shouldering one another like Jamal with all the free weights, Mr. Kozera looks like he's going nowhere even when he's reached terminal velocity. On the screen, his face tightens in a stream of adrenaline and elation, and he finally pulls a string on his harness, unfurling his parachute in a triumphant mass of blue.