

Genetic Mapping

DNA tests promise to tell people who they are and where they're from. But for Emma Gilchrist, a search for answers only led to more questions.

Illustration by Cécile Gariépy

On an overcast Sunday morning, one week before Father's Day, I walked inside a breakfast joint in Nanaimo, BC. He was already there waiting for me, wearing his standard outfit: cowboy boots, jean jacket, white hair poking out the back of his cowboy hat. We sunk into a long hug before a server led us to a small booth at the back.

I'd been meeting my biological father in restaurants like this a couple of times a year since we first met sixteen years ago. But this time was different. I was nervous, already starting to sweat beneath my favourite jacket.

Watching him across the table, in a moment I've come to think of as "the before," I tried to memorize every detail of him. His deep olive skin, his kind blue eyes, the dirt beneath his nails. Tears started to cloud my vision, but I blinked them back. We bantered about the pandemic, his wait for shoulder surgery, his non-existent love life. Then he turned the conversation to me.

"I've been yakking too much," he said. "How are you? Have you talked to Kim lately?"

Kim's my birth mom. I knew then that there was no more putting off what I had come here to say. I took a breath, but still had trouble meeting his eyes.

"Yeah, we aren't really talking much these days," I said. "I discovered something I need to tell you."

I had practiced a script for this part, but the tears came before I could get the words out.

"What is it sweetie?" he asked.

As the tears turned into sobs, I put my head in my hands. When I finally looked up, our blue eyes locked.

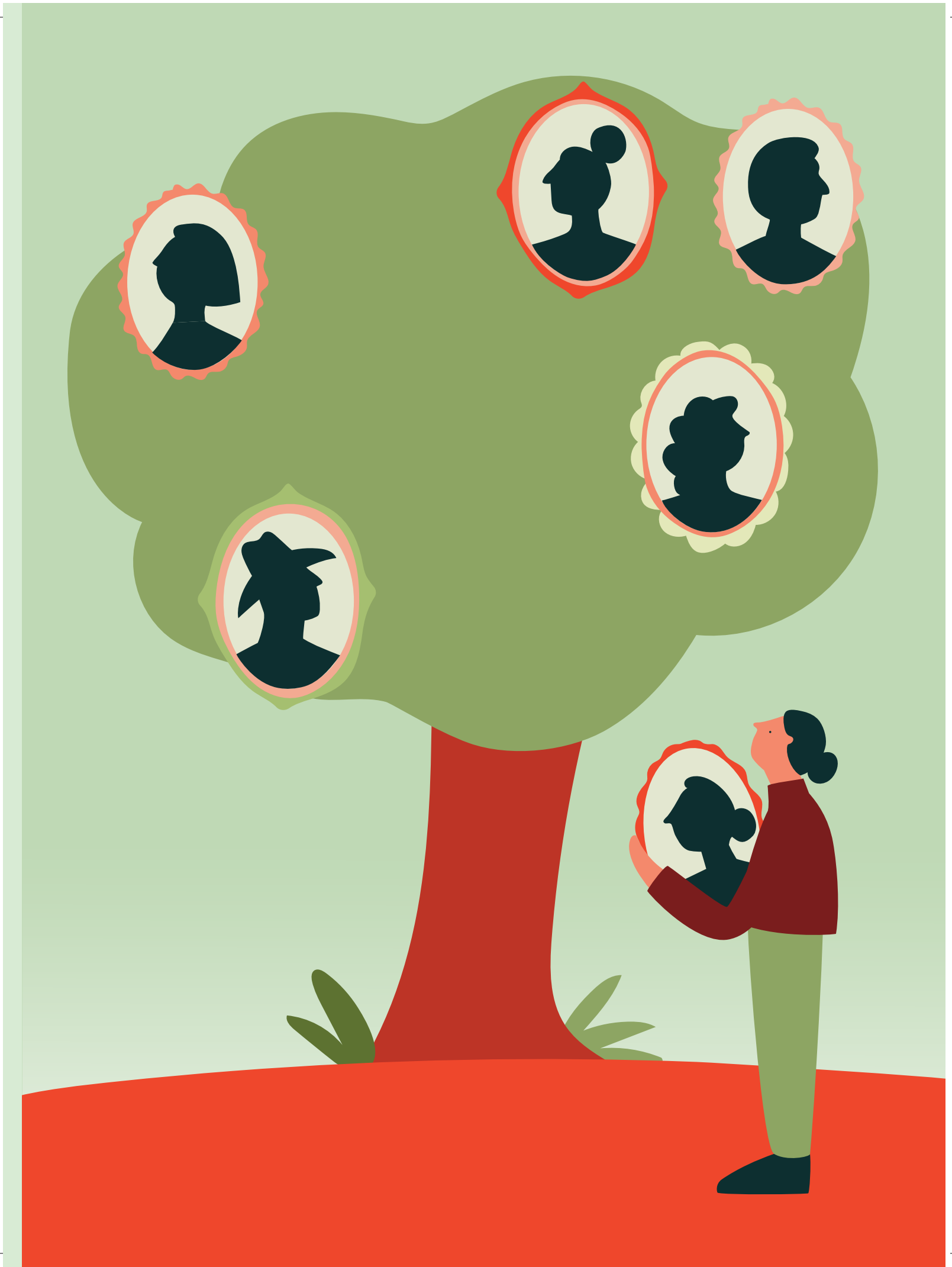
"Guess?" I squeaked out.

"What," he said. "I'm not your dad?"

I nodded.

At some point, our breakfast arrived, our eggs growing cold on the plates in front of us.

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Scenés like this are playing out for thousands of Canadians thanks to the surging popularity of home DNA testing. Most people signing up for genetic ancestry services like AncestryDNA or 23andMe want to learn more about where their family came from. Others are looking to access information about their health or family medical history, and some are hoping to connect with distant relatives.

But what often starts out as an innocent interest in family history can lead to shocking results, uncovering infidelity, donor conception, adoption and, well, family secrets of all varieties. A whopping 27 percent of DNA test-takers said they learned about close relatives they didn't know about previously, according to a 2019 survey by the Pew Research Center. That's no small number, especially when you consider the fact that 15 percent of US adults have taken a test since the industry launched over a decade ago. (Interest in genetic ancestry testing is growing exponentially: as many people purchased consumer DNA tests in 2018 as in all previous years combined.)

Startling DNA revelations have become so common that 23andMe has dedicated a section on its website to those who discover an "unexpected relationship," directing people in need to a crisis line. "You spit. You waited. And now, you may have discovered something you didn't anticipate," the page says. "23andMe results can reveal new information that has the potential to shift how we think about ourselves and our families." A cottage industry has even sprung up to support people dealing with the explosive fallout of DNA surprises: Facebook groups, books, podcasts and at least one nonprofit.

"Non-paternity events" or "not parent expected" results, as they're crudely called, happen more often than you might think. Within a year of uncovering my own paternity mix-up, I learned of three other people in my social circle who'd recently made similar discoveries through DNA tests. One found out her parents had a threesome and the other man was her true biological father. Another was given a test by her sister for Christmas, only for the "gift" to reveal the news they didn't share a dad. And another learned that her absent father, whose troubled history she was trying to avoid repeating, wasn't her flesh and blood after all.

DNA testing is the latest in a long line of scientific attempts to get a fix on paternity. In the early 1900s, doctors used techniques such as examining dental structures, fingerprinting and—my personal favourite—measuring noses, according to Nara Milanich, a history professor at Barnard College and author of *Paternity: The Elusive Quest for the Father*. "There's always been this tension between social and biological paternity," says

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Milanich. "But what genetic science did was lay bare that tension in a way that could previously be ignored or negotiated."

In her book, Milanich writes about Catholic doctors in the mid-1900s who grappled with the moral dilemma of men requesting blood tests for their children because they suspected infidelity. Doctors acted as the gatekeepers of what was seen as the public's "unhealthy curiosity" and often declined such requests.

In the past, paternity secrets might have slipped out through the occasional deathbed confession, whispered conversation, or perplexing blood type result. But the emergence of home DNA testing has done away with gatekeeping and secrecy altogether. "And we never had a conversation as a society about whether that was a good thing or a bad thing," Milanich says. "It just happened."

Suddenly, hundreds of thousands of people are facing the disorienting experience of stumbling upon a biological truth they never went looking for in the first place. That wasn't my experience—at least not exactly. I've always carried questions about who I am and where I'm from. I didn't need to take a DNA test to know that the story of my identity is far from simple. Still, even a lifetime of uncertainty couldn't have prepared me for what happened when I got the results.

In October 1984, my birth mother signed the papers to put me up for adoption in Lethbridge, Alberta. I was five days old. "She has not seen nor named her baby, stating she chooses not to build an emotional bond with the child," reads the report by the social worker. I spent a few weeks in foster care before two British teachers living in northern Alberta got the phone call they'd been waiting on for years.

My mum scribbled the details of the call furiously on a piece

of scrap paper: *Girl. September 30th. Born at noon. Seven pounds seven ounces. Round face. Reddish full head. Plump. Healthy.* They flew south two days later—despite my “reddish full head”—signed the adoption papers, and went home with a new baby.

My parents told me I was adopted from such a young age that I can’t remember learning the news for the first time. When I was little, it made me feel special. But as I grew older, curiosity tugged at all corners of me and my mind whirled with the what-ifs. What if my parents had signed up for a baby two weeks later? Would some other little girl be Emma? Would I be someone else? It frightened me to think of how a string of arbitrary events determined who I was.

When I researched adoption laws in Alberta in my teens, I discovered I might never gain access to my own original birth certificate, let alone the names of my birth parents. Every waking moment became shrouded by a string of existential questions: Why am I here? Who was my birth mother? And why did she give me away? *Give me away.* Those were three words I thought about almost constantly.

Juliet Guichon, a medical bioethicist at the University of Calgary, says it’s common for adoptees and those conceived through assisted reproductive technologies to start questioning their identities as teenagers. “We are always engaged in identity formation, but the practice is more dominant in our minds during adolescence,” she says.

In the mid-1900s, psychologists coined the term “genealogical bewilderment” to refer to the sense of disorientation and disconnection many adoptees experience. Decades of research has shown adoptees and birth parents tend to fare better psychologically under open adoptions, which has helped justify recent changes in adoption practices. “Secrecy is not in the best interests of the child,” says Guichon.

The fall I turned eighteen, I moved 600 kilometres south to Calgary. While my friends were excited about going to the bar, I was excited about signing up with Alberta’s post-adoption registry. The registry connected adoptees with biological relatives who’d also signed up. I filled out the paperwork, mailed it in and waited. A year went by. Nobody registered.

At that time, the only other option for adoptees looking for answers was to pay to undertake a licensed search through an adoption agency. My parents kindly paid the few hundred bucks to make it happen, and the Alberta government handed over my full adoption file to the agency. (Two years later, in 2004, Alberta followed in the footsteps of BC and Newfoundland by opening adoption records, which means adoptees can access their information once they come of age, unless their biological parents have placed a veto on the file. Most other provinces

have since followed suit.)

The agency tracked down my birth mother within a week, even though she’d been living in Mexico for fifteen years. She was eager to connect and immediately signed and faxed a consent form, allowing the agency to release her information to me. When a woman from the agency called me with the news, I scribbled down notes, much like my mum had done for me: *Business woman. Loves writing. Yoga and Buddhism. Knows birth father’s name.*

I wept happy tears when I got off the phone, then emailed her. I received a response that night.

A little email seems so terribly inadequate, she wrote. *I am thrilled you have found me.*

When I met my birth mother in person, we grabbed each other’s freakishly small hands and marvelled at how similar they were. Kim and I shared the same laugh, the same smile, the same mannerisms. We spent two days together in Phoenix, Arizona, a halfway point between our respective homes, trying to catch up on nearly two decades of life. After years of fantasizing about this moment, it passed by in a surreal blur in the desert heat. A few days later, I wrote in my journal that I felt “numb.”

Kim had two young children, ran a bustling travel company and was a surfer. She was nineteen when she got pregnant, didn’t have a steady boyfriend and didn’t feel she had the family support to raise me herself. She told me my birth father’s name was Todd. They’d been high school sweethearts in Kimberley, BC, but had broken up by the time I was conceived. He’d known about me since shortly after I was born.

Kim and Todd hadn’t spoken in years, but soon after I found Kim, she tracked down a phone number for him. He was living on Vancouver Island and came home from a weekend away to a voicemail with a simple message: “She’s here.”

I met Todd at Easter dinner at his sister’s house in Calgary. His tattoo-covered biceps bulged from his cowboy shirt. He’d lived a rough life—including a brief stint in prison for drug possession—but he was a soft soul and was excited to connect. We searched each other’s faces for similarities and found some: our olive skin, our blue eyes, our cheek bones. He was also adopted, which seemed like an uncanny coincidence given I’d only known two other adoptees growing up.

I learned he had Indigenous ancestry. I’d often wondered if the same might be true for me, given I grew up in a northern Alberta town where about 25 percent of the residents were Indigenous. Todd told me he had tracked his Indigenous ancestry all the way back to 1793. His great-great-great-grandfather, Francois Moriveau, lived in BC’s Columbia Valley with his Red

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River Métis wife, Isabella Taylor. They had a son, Baptiste, in the early 1840s who later married Theresa Kaius, a Ktunaxa woman, at St. Eugene Mission. Baptiste was well-known in the area, in part for giving the city of Golden its name.

I studied our family tree and Googled the names of our ancestors, reading articles about their prominent roles within the Métis and Ktunaxa communities. On my twenty-fifth birthday, I drove to the Columbia Valley and visited an elementary school named after Todd's great-uncle and waded in Columbia Lake, imagining my ancestors' toes touching the same stones. I contacted the Windermere Valley Museum, asked for information about our family and received highlighted historical papers in the mail, detailing the colourful history of the Morigeau family.

By this point, I was a young journalist working at a daily newspaper and I was drawn to reporting on environmental issues. Over the next ten years, I travelled with Elders to a spiritual site in northeastern BC and ate sea urchin at a Haisla and Gitga'at feast in Kitamaat Village. I wrote stories about First Nations' fights to save their land from hydro dams, oil development, ski resorts. I took secret comfort in each brush that I had with Indigenous cultures, feeling like I was quietly reclaiming part of my own story.

I had been raised in a white family and experienced all the privilege that comes with that terrain. I knew that even if Todd had Indigenous ancestry—and I did too—I still benefited from whiteness, and nothing would erase that. But being adopted, there was always a blank space in my identity I longed to make sense of. Learning about my birth family's history felt like I was slowly, but surely, filling in the gaps.

In 2011, I got a job on Vancouver Island, where Todd lived. A couple of times a year we'd meet for lunch and excitedly trade notes on what we'd learned about our heritage. We bonded over

our shared adoption history and our efforts to reconnect with our biological roots. He'd connected with his birth mother, had attended a family reunion and was chatting online with his Métis cousins. He'd decided he would start using his birth name instead of his adopted name and was planning to apply for Métis citizenship. I hoped to follow in his footsteps and tucked away an application I received in the mail.

Then, in December 2016, the Joseph Boyden scandal broke. As the Canadian author was called out for his shape-shifting statements about his Indigenous ancestry, a sense of unease grew in the pit of my stomach. My father's name wasn't listed on my birth certificate, so on paper I had no connection to him or to my Indigenous ancestry. My close friends knew my story, but I'd never spoken publicly about my history. To reconnect with the Métis community and apply for citizenship, I was going to need proof of our biological connection. And proof doesn't come easily in cases of two generations of adoption.

When ads for consumer DNA tests began popping up in my Facebook feed, it felt like a way to skirt around the awkwardness of asking Todd to take a paternity test. I thought it might help accelerate my research by connecting me with other relatives and confirming my ancestry. So I paid \$249 for a kit from 23andMe. It promised to tell me about any health conditions I may have inherited and what percentage of my DNA came from thirty-one populations worldwide, including "Native American."

At the time, I was only vaguely aware of the growing criticisms of genetic ancestry testing led by the Indigenous scholar Kim TallBear, who published a book in 2013 called *Native American DNA: Tribal Belonging and the False Promise of Genetic Science*. "The kind of genetic ancestry tests that people are buying on Ancestry.com don't do very much at all for you," TallBear tells me in an interview. She says Indigenous belonging isn't determined by DNA, but through connections with living people and Indigenous political bodies.

A DNA test "might help you find a biological relative, but you're still going to have to go to the community that has authority over belonging, whether it's political belonging through the form of a First Nation or a band office, or whether it's informal kinship belonging to the family," TallBear says. "You still need to reconnect to somebody and you've still got to show your relationship to living communities."

Recently, a number of high-profile people have had their claims to Indigenous identity called into question after it's been revealed that they have no meaningful connection to a community. In 2019, Elizabeth Warren apologized to the Cherokee Nation for taking a DNA test in an attempt to prove her Native American ancestry. In another controversy reminiscent of the



Boyden scandal, in late 2020, Canadian filmmaker Michelle Latimer resigned as the director of CBC's TV series *Trickster* after a CBC investigation alleged that she had claimed false ties to the Kitigan Zibi Anishinabeg First Nation. "Genetic ancestry testing alone is never enough," TallBear tells me. "If it's going to be useful to reconnect, it always has to be coupled with other, more tangible forms of connection."

When I ordered the DNA test, I knew the results would only be one more piece in my identity puzzle. But after having my biological identity hidden from me for much of my life, it felt like a small way to take back control over my own story.

When the box arrived, containing instructions and a test tube, I spit into the tube, slipped it back in the box and popped it in the mail. After a lifetime of fighting for access to my family history, it all felt a little too easy.

Soon after they launched, genetic testing companies started facing criticism over privacy concerns and the way that they categorized people along ethnic lines. But they were also giving adoptees and donor-conceived people fresh hope when it came to finding answers they had long given up on.

BC's Olivia Pratten had spent much of her life fighting for the right of donor-conceived people to know their biological origins. In the BC Supreme Court, Pratten argued that people conceived through an anonymous sperm donor, like herself, should have the same rights as adopted people in the province (adoptees in BC became the first in Canada to gain access to their own records in 1995). In May 2011, the BC Supreme Court ruled in Pratten's favour, saying people who are deprived of their genetic backgrounds suffer psychological harm. But the BC government appealed the ruling and won in 2012.

Pratten, who's now thirty-eight, says she thought she'd made

peace with not knowing who her biological father was. But just as her court battle ended, home DNA testing happened to be becoming more accessible. She was living in Toronto at the time and Ancestry wasn't shipping kits to Canada yet, so she had a kit shipped to Buffalo, New York, and drove across the border to pick it up. She checked the database once a week for four years, hoping that a match in the system would reveal her biological identity. Then one day in 2017, it happened.

Pratten tells me that discovering the identity of her biological father was complicated, but it also came as a relief. "I waited thirty years for this," she says. "I should not have had to wait this long. I could literally feel the mental weight ... lift from me instantly."

Pratten, who also learned she was Jewish via the DNA test, said not being able to answer doctors' questions about her family medical history had become extremely upsetting to her. "There was something about not knowing for that long that felt degrading and it's only with hindsight that I can see that now," she says. "There's dignity in knowing."

All of the donor-conceived people who fought alongside Pratten for over a decade have now found answers through DNA testing, she says. "No one can promise anonymity anymore in Canada. DNA testing has completely usurped all the power and authority of the clinics and I completely celebrate it," she says. "There's no conversation anymore about whether you have the right to know."

Of course, one person's right to know impacts another person's right to privacy. But province after province has decided the right of a child to know their biological history comes first—at least in cases of adoption. Anonymous sperm donation has been outlawed in Australia, New Zealand and much of Europe, but is still legal in Canada.

Within a year of finding out her biological origins, Pratten was pregnant with her first child. She thinks there was something on a subconscious level holding her back from starting a family until she'd found her own answers. "He'll never know the mystery that I had to deal with," she says of her son. "He will have answers about his ancestry and knowledge about that from the day he was born."

My own DNA results arrived two months after I spit in the tube. I clicked them open right away, impatient to learn the truth. Staring at the colour-coded world map in front of me, I learned that the test didn't detect any "Native American" ancestry at all. Instead, the pie chart said I was 23.9 percent southern European, mostly Spanish and Portuguese. I was shocked, my head swimming with possibilities.

I hoped there had been a mix-up—that maybe somewhere along the line there had been a mistake in Todd's paternity, but that he was still my father. Luckily, by coincidence, Todd had purchased a genetic ancestry test just three days before I had ordered mine. He had gone with a different company, AncestryDNA, and would have his results soon.

When they came in, I nagged him to send me a screenshot, careful not to let on why I was so anxious to see them. His map didn't match mine in puzzling ways. I saw that he had Native American and Nordic ancestry, while I had none.

Still, I didn't want to jump to conclusions. I had heard that testing through different companies could render different results. (A CBC investigation in 2019 revealed identical twins received significantly different ancestry estimates even when testing with the same company. 23andMe attributed the difference to their algorithm and pointed to the fact that its results are "statistical estimates.") I decided to order a test through the same company as Todd. Surely, I figured, the database would match us as family members.

But another train of thought had started unravelling in my mind like a runaway spool of wool. I messaged my birth mom—whom I'd seen a few times over the years and stayed in regular contact with—to tell her about my surprising Portuguese ancestry and ask if there'd been someone else. *Definitely no other candidate*, she replied.

I received a cheery email with my results in late September 2017: *Great news! Your AncestryDNA results are in.*

But it wasn't great news. Todd and I weren't matched. The man I'd spent fourteen years building a relationship with on the basis of a biological connection wasn't related to me at all.

For months, I felt like a stowaway on a cargo ship pulling away from land, everything I thought I knew fading into the

How could it be that these things I'd believed my entire adult life were untrue?

distance. How could it be that these things I'd believed my entire adult life, that had informed so much of who I'd become, were untrue?

In those early days, I couldn't even bring myself to share the news with my partner or closest friends. Three months after I received the results, I was 6,000 kilometres from home on a roadless island in Panama when I divulged my secret for the first time to a couple I'd just met. "I realized I just didn't want it to be real," I wrote in my journal after my confession. "There's some kind of cruelty to this being the end of my story—to this secret being the brick wall, the end of the road, to have my identity concealed from me not once, but twice."

Brianne Kirkpatrick, a genetic counsellor who specializes in coaching people who have discovered family secrets, says she's noticed similarities between the experiences of adoptees and those who discover non-paternity events. "It's the experience of being treated as a perpetual child," Kirkpatrick says. "You're denied rights to your own birth history, rights to your own genetic identity." She says discovering your biological father isn't who you thought it was is a traumatic experience for many people and often provokes grief, which can strain relationships.

When a DNA surprise comes to light, it doesn't just implicate the person who has made the discovery. The grief ripples out, intensifying an already destabilizing experience. "DNA is not only my information. It's my siblings' information, it's my children's information, it's my parent's information," says Françoise Baylis, a professor of bioethics and philosophy at Dalhousie University. "Up until this point when we've done work with DNA, we've asked for informed consent." But now you don't even have to be the one taking the test to risk having your life changed by the results.

I decided not to break the news to Todd at first. I was his only

child and I couldn't bear the thought of his heartache. Besides, who knew if I'd ever find my actual biological father? Why hurt an innocent person for nothing? If I had to live with this lie, I would. But there was a great ache inside of me.

Six months later, I received an email from Ancestry about a new DNA match. A man named Chad who lived in Vancouver was listed as my first or second cousin. I was quite certain he wasn't from my mom's side of the family, so I tracked him down on Facebook and sent him a message. I was working twelve-hour days at the time, and didn't give it much thought as the months passed and Chad didn't see my message.

But on the last day of 2019, more than a year after I sent the note, Chad replied and we started chatting. I told him about my Portuguese ancestry and he mentioned that he had some Portuguese cousins. I told him my birth mother was from Kimberley. He replied that his aunt had lived in Cranbrook, just a twenty-five minute drive away. When he wrote that I actually looked like some of his cousins, my heart sped up. We agreed to meet for coffee the next time he visited Vancouver Island.

A couple months later, before that coffee date could happen, I received a message request on Facebook from a guy named Shawn Mendes. The note said he'd been chatting with his cousin, Chad.

Based on the story he told me, he wrote, I suspect we may be related.

I asked Shawn where he went to high school and how old he was.

Cranbrook, he typed. Fifty-five.

Then I asked him if he knew Kim.

That's a name I have not heard for a very long time, he wrote. How do you know her?

She's my birth mother, I replied. Were you romantically involved?

Kim was the first girl I was ever that romantically involved with. A short relationship. January '84. Were you by chance born in October '84?

Woah, I typed. I was born September 30, 1984.

Oh my god, he wrote. My heart is racing.

After decades of searching for my biological truth, it ultimately took just fourteen minutes to unravel the mystery.

"I feel like it's a first date," Shawn said when we talked on the phone the next morning. "I'm a bit nervous."

He told me about his dalliance with my birth mother, which he remembered vividly since it was his first time ever having sex. Their brief relationship just kind of ended, like many teenage romances do. Shawn went travelling in Europe and then moved to Vancouver. He remembered running into Kim at a festival in Kimberley about six months later when she was visibly pregnant. "When she saw me she just said, in a very convincing

fashion, 'It's not yours.'"

Given travel restrictions due to Covid-19, my relationship with Shawn blossomed over text. We couldn't believe our similarities. He was a climate policy nerd. I ran an environmental magazine. He lived in Stockholm. I lived in Stockholm a few years back. We were both news junkies. Avid travellers. Adventure seekers. He makes me feel more *me*.

It was as if I'd been fumbling around in a dark room most of my life, occasionally bumping into sharp objects. And then, in my thirty-sixth year, someone flicked the lights on.

I called Kim to tell her that Shawn and I had found each other. My palms were sweating, worried about how she might react, but she didn't miss a beat.

"Oh my God, Emma, he's your dad," she said. "I've got tingly feelings all over. I totally remember his blue eyes. I remember the space between his front teeth and his dimples." My blue eyes. My gap. My dimples.

I hadn't expected her to remember Shawn so readily, given she'd said there were no other dad candidates. When I hung up, I felt like I had more questions than answers.

Shawn and I agreed he should take a DNA test, just so we could be sure. The results confirmed what I already felt certain was true. The site told me I shared 49.6 percent of my DNA with him, which suggested *the following estimated relationship: father*.

The more Shawn and I connected, the more I grieved what we'd missed. I recast my entire adult life, wondering how it would have unfolded differently if I'd known him sooner. I created a Mendes album on my phone, with photos of Shawn and his family, including a new half-sister and brother who were twelve and fourteen at the time.

I learned about my Portuguese grandfather, who was one of twelve children born and raised in Trinidad, before immigrating to Labrador in the fifties. Shawn described him as a "viciously progressive" man who rode his bike to work at a coal mine. He told me about my grandmother, one of fourteen children born in Newfoundland. Luckily, they were both still alive and living in BC.

Suddenly, it all felt so obvious: my four trips to Portugal. My three Portuguese boyfriends, despite only 1.4 percent of Canadians claiming Portuguese ancestry. My ex's Portuguese aunt asking if I was *sure* I wasn't Portuguese. My dedication to drinking only vinho verde. The Portuguese lessons on my phone. My obsession with the Portuguese word *saudade*, which can be roughly translated to a nostalgic longing to be near again to something or someone that's been loved and lost, with the knowledge that it or they may never return.

I was left wondering how much of my past can be explained by my biology. Was my feeling of *saudade* always leading me back to the ancestral land of my grandfather?

Wendy Roth is a University of Pennsylvania sociologist who researches how genetic ancestry tests impact consumers' racial and ethnic identities. She tells me there's a name some people use for the pull I described. "It's called blood memory. It's this idea that somehow your genes or your blood sort of know what your ancestry is and leads you to it," she says. "But is there any evidence to support it? No, there isn't."

Roth says my experience is not uncommon among test-takers and is probably better explained by psychology. "You're now looking back on past experience through this particular lens, trying to look for every piece of evidence to suggest Portuguese interest that you've ever had in your life," she says. When I believed my biological father had Indigenous ancestry, she noted, I thought that made sense, too. "You sort of look for the facts or pieces of information that help you to make sense of the new finding."

While the spiritual side of me wants to believe there are things science can't explain, Roth warns the concept of "blood memory" is dangerous. "The idea that it's possible to even have blood memory suggests there is something different about a person's blood or a person's DNA or a person's biology that is connected to being part of a group that we call 'ethnic' or that we call 'racial.'" That implies that ethnicity and race are based in genetics, when in fact they're social constructs. "It feels almost mystical or magical, but it's got this dark underbelly, which is that it reinforces a lot of really dangerous views."

As an adoptee, I get that genetics aren't everything. I know the love my parents and I share for one another is not any less than the love shared between biological parents and their children. I adored my British grandparents despite sharing no biological connection whatsoever. But surely there's got to be room in our understanding of ourselves that allows nature to have at least some influence over who we become?

"I do believe there is a nature side to our personalities," Roth says. "There is a profound connection we have to the people that we are descended from." But while this biological connection may be real, it's not organized around ethnic or racial lines. In other words, I might feel a profound bond to my new Portuguese grandpa, but that doesn't mean I'm tied to all Portuguese people. (Though one study did find that people are subliminally attracted to features of their opposite-sex parent—which might explain all those Portuguese boyfriends.)

Crucially, Roth explains that discovering a new ethnic background through a DNA test does not automatically change a

person's ethnicity. Ethnicity is shaped by culture, traditions and family connections, not biology. Despite this reality, her research has found that white people are the most likely among test-takers to change their ethnic or racial identities after they receive unexpected ancestry results. This is in part because Black and Latino identities have always been thought of as multiracial. But Roth has also noticed that white people are often looking for "a sense of belonging."

Much like false claims to Indigenous identities, this pattern raises all kinds of ethical questions: In what ways could white people stand to benefit from shifting their ethnic or racial identities? How could this harm people of colour? How will this trend reinforce problematic understandings of the relationship between race and biology? White people taking DNA tests need to grapple with these questions.

Roth's research doesn't map neatly on to my experience, because it doesn't focus on the uniquely disorienting experience of people who have discovered new biological fathers, or on adoptees. Here's what I know to be true: in the absence of other forms of information, DNA tests can be a lifeline for people who've been disenfranchised by government systems that serve to separate children from their biological families. I shouldn't have ever had to fight for access to my own birth information, but I did—and a DNA test ended up playing a crucial role in my journey to piece together the truth of where I came from.

Nine months after finding Shawn, I sat down at my desk one morning and saw a tribute he'd posted to my grandfather, Joseph Conceição Mendes, on his ninety-second birthday. *Born in Trinidad in 1928, he has celebrated birthdays in eleven decades. He has never been a fan of norms and rules, but it would be hard to find a person with a more creative mind or with a stronger moral compass.*

Tears streamed down my face. This man, who I felt like I've been drawn to like a magnet across time and space, now had dementia and was locked in a care home during the pandemic. I could have known him for at least sixteen years. We'd never get that time back. I'd never get the chance to know my Grandpa Mendes, nor him me. I'm not a religious person, but I found myself praying that I could lay eyes on him, that I could hear his voice, even just once.

In the dappled light of Vancouver Island's old-growth trees, I hiked down a steep trail with Kim and pushed her for answers. She slipped a couple of times and looked fragile, like a young deer just getting its legs. It was September 2020, and I had spent the past six months trying to put together a timeline, desperate to understand how I had ended up with the wrong biological father for all of my adult life.

No one knows how to respond when you find out you aren't who you thought you were.

I had already cross-examined Kim, Todd and Shawn over the phone, and even reached out to the boyfriend Kim was with during most of her pregnancy. He'd responded once before going dark. It was unclear why, but Kim claimed not to remember much from the time around my conception. She said she hadn't discovered she was pregnant until she was six months along. She never had an ultrasound, so her due date was a month off.

While she remembered dating Shawn briefly, she had no memory of running into him when she was pregnant in the summer of 1984. "I didn't consider him a candidate. He was a really nice guy. I would have told him," she said. "Nothing made sense. If anything had made sense, I maybe wouldn't have given you up for adoption."

After everything, it seemed my misattributed paternity came down to foggy memories and no one bothering to do the math. I was exhausted and frustrated, but mostly sad—for me, for Todd, for Shawn. The emotional rollercoaster was made worse by the fact that there isn't a playbook for this type of event. When someone loses a parent, people know how to act. But no one knows how to respond when you find out you aren't who you thought you were. There are no sick days or compassionate leave.

For months, I felt as though I was watching life unfold through a frosted window. I could see everyone carrying on with their lives on the other side, but I was in a fog.

Guichon, the bioethicist from the University of Calgary, says recreating an identity after a paternity surprise is a psychologically wrenching process. "People have built their lives on a certain premise and that premise is now gone. They have to create a whole new understanding of who they are and who their people are," she says. "It's real work. Society doesn't recognize what you're going through."

These feelings were complicated by the fact that while I was angry I'd been prevented from knowing the most basic facts about myself for three decades, I also felt sorry for Kim.

In her therapy practice, Kirkpatrick has noticed patterns in how biological mothers respond to paternity surprises. "Some of the stories are probably the truth. And some are probably trying to protect themselves or their reputation, or holding onto a lie that they've worked so hard to keep. They're afraid that everything is going to fall apart if that lie gets exposed," she says. "It's hard to judge people in the past when you don't know what the culture was like around that person. Maybe if they were living in today's time they would have made a different choice."

After our visit, Kim sent me a text: *I truly am so deeply sorry and I know it is pretty irreparable.*

I told her I'd love an explanation someday, but am open to accepting it doesn't exist. For my own sake, I needed to start letting go of my anger. I tried to focus on being grateful for the fact that, against all odds, Shawn and I found each other, and with any luck we'd now get the chance to make up for lost time. But before that could happen, I knew I had to tell everyone the truth—including the person it would hurt the most.

Tucked in the booth at the back of the diner, after I sputtered out the news, Todd said he felt empty. Despite his rough cowboy exterior, he was visibly shaken. "I was really looking forward to having grandchildren, to getting them up on the horses," he said.

He slipped away to the washroom for a while after that. When he came back, he pulled up a photo from my wedding last fall—the two of us are smiling from ear to ear. "That's one of my favourite photos," he said.

I sat outside the restaurant sobbing in my truck after. I felt wrung out, a lifetime's worth of struggle culminating in this one excruciating morning. Todd and I saw each other several times over the next few months, pulled closer together by the fear of how this news might alter us.

"In my heart of hearts you are my daughter," he told me, a few months later. "I never questioned it because I wanted it so badly. I still do." Even so, he said he knew the truth right away that day. "It was just a look in your eyes."

"Father's intuition," I replied.

A year after discovering a new biological father, I'm still working on finding my balance. Once it's safe to travel again, I plan on making new memories. Shawn and I message constantly about possible plans: first up, meeting my grandparents, then visiting Madeira, Trinidad, Newfoundland.

In the meantime, here's what I know for sure: I have three fathers who love me. One is my true dad—the man who raised me and has always told me "the more people who love you the better." One has the softest heart and shares my experience of being adopted. And one feels like a soulmate even though we've never met. 🧡