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The Trap to Avoid if You Ever Meet a Stranger Who Shares Your DNA

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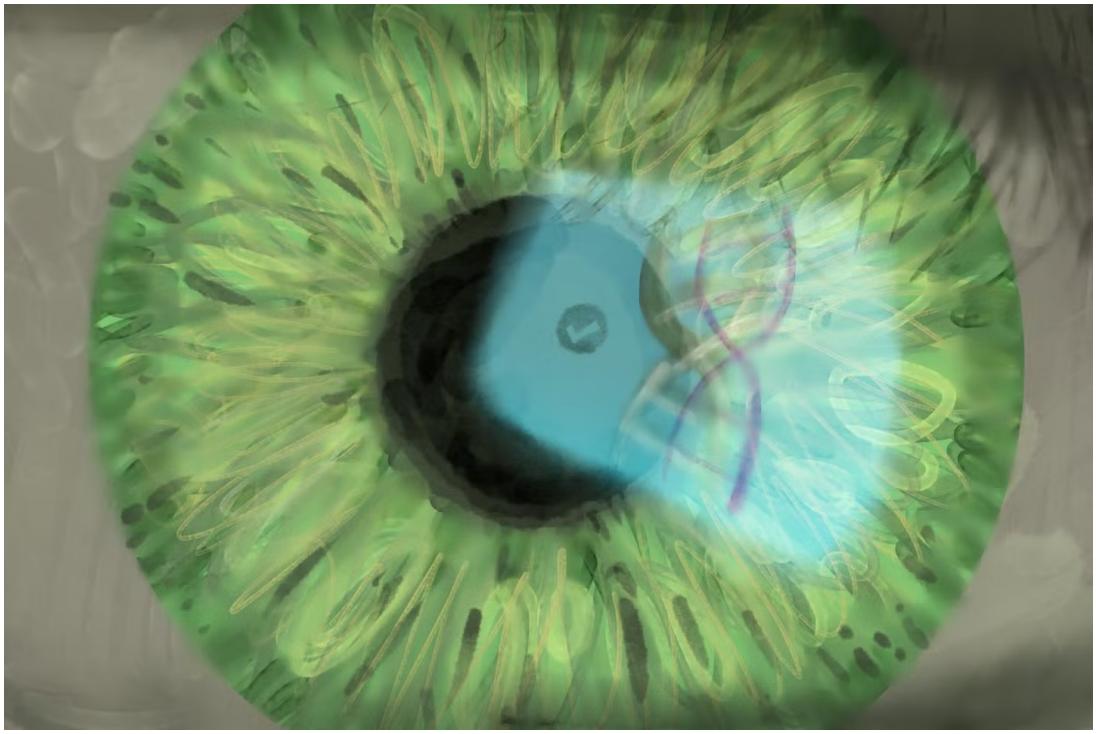

Natalie Matthews-Ramo/Slate

A journalist who covers DNA tech responds to Meg Charlton's "Intangible Variation."

A few days ago, a woman sent an email to a listserv I'm on, asking if anyone had navigated meeting their child's "dibling." Dibling, for those who don't know, is a term sometimes used to describe children who share a sperm donor, but live in different households. (Some prefer the term "half sibling.") In her case, she found the person through a donor sibling registry. In other cases, parents and children might find relatives through DNA databases.

"I honestly don't know what I'm asking for in posting here—just wondering what folks' experiences have been, in what ways you prepared (yourselves/your kids) for the moment," she wrote. It was a vague request, but it still cut beautifully to the heart of a broader question that has consumed millions of Americans over the past decade: How should we think about the people who share a lot of our DNA—or in this case, her child's DNA—but aren't family in the traditional sense? Twenty years ago, it was rare for such a person to pop into our lives. But for better and sometimes worse, the rise of consumer genetic testing sites like 23andMe have made it difficult to keep genetic secrets. And so reunions are quite common.

Each one creates dilemmas. Some are relatively simple: Do you want to Zoom with the newfound cousin? Some are more complicated: Your father is not who your mother told you he was, it's this other guy who is dead. That means your mother cheated on your father, but you never got along with him. Do you want to contact your biological father's children?

"Intangible Variation," a fascinating new fiction story by Meg Charlton, explores a comparably tricky scenario to illustrate something I believe is true no matter who the newly discovered relative is: It's best not to expect too much from the meeting. The tale of Daren, whose encounter with his younger "genetic twin" goes terribly awry, becomes a parable about the risks of assigning too much meaning to shared DNA. Though the story is scientifically implausible in some ways, it is eerily familiar in others. More than 26 million people have sent in their spit to consumer genetic companies to learn about their ancestry, find relatives, and better understand their health. Frequently in the process of trying to answer one question, customers will discover something that challenges the narrative of who they thought they were. Meanwhile, tons of companies have emerged making all kinds of difficult-to-verify promises about what DNA can and cannot actually tell us about how we should live.

For those who have not read the story: GENMatch, a genealogy and DNA analysis site, connects 49-year-old Daren, a depressed wealth management specialist, to TJ, a man who looks uncannily similar to him. Daren is obsessed with GENMatch because he is obsessed with epigenetics, an area of scientific research focused on how behaviors and environment affect the expression of genes. Though GEDmatch, the real-life site that the story seems to be referencing, is primarily focused on helping people understand their ancestry, this futuristic GENmatch is heavily focused on gene optimization. But just like the real GEDmatch, the site compares customers' DNA. And that's how the site leads Daren to TJ, who is 10 years younger and shares 98 percent of his DNA—even though they do not seem to share any close relatives. Daren turns to a research paper to make sense of the discovery. "There are only so many ways to put together a human being," and so at some point "you're bound to get a duplicate," it says.

This is the implausible part. Identical twins share 100 percent of their DNA; fraternal twins only share around 50 percent, the same amount shared by other full biological siblings. Half siblings share about 25 percent. Indeed, in recent years, researchers have demonstrated that doppelgängers, people who look uncannily like one another though they are not closely related, may share genes—and the more they look alike, the more genes they seem to share. But the percentage of overlap is still quite small.

Sylvia Wilson, an investigator at the Minnesota Center for Twin and Family Research, which runs studies on genetic and environmental influences in the development of substance abuse and other psychological disorders, didn't want to say it would be impossible to get genetic twins, born of different parents. In theory, if random variation in genes shook out that way, it *could* happen—but "that would be an awfully big coincidence" she said. Meaning if a genealogy site ever gives you such a result, it's probably incorrect. Misleading DNA results do emerge. They may be caused by an issue with the original spit sample that the person sends to the DNA testing company, or by contamination, a lab mix-up, or a computer program's miscategorization of results. Daren, in his eagerness to understand his miserable

self through another person, fails to consider any of these possibilities. TJ, on the other hand, acknowledges that the genetic matching sites are "pretty janky."

Still, it's totally plausible that someone could end up on a trip with a newly discovered doppelgänger or relative they found through GEDmatch. It's also realistic to imagine that one or both people would place a lot of expectations on that meeting. Many assume that getting to know a biological sibling or parent will help them make sense of their life, said Leeanne R. Hay, author of *NPE* A Story Guide for Unexpected DNA Discoveries*. Sometimes it does. But Hay has also observed a less helpful tendency to "get caught up in the what-if cycle," she said. *What if I'd grown up in a house with all that money and those opportunities? What if I'd grown up with a person like that in my life?* "Breaking out of that cycle is a real challenge for some," she said. In Charlton's story, that loop has devastating results.

Alas, Daren's belief that the differences separating him from TJ "were all down to nurture rather than nature" is false. Identical twins, who grow up together, tend to be extremely similar in terms of things like interests and abilities, said Nancy Segal, a psychologist who has written several books on twin studies, including *Deliberately Divided: Inside the Controversial Study of Twins and Triplets Raised Apart*. But even they have their differences. "For one twin, their mom's criticalness can really influence them to feel badly about themselves, but for the other twin it might influence them to excel in school," Wilson, of the Minnesota Center for Twin and Family Research, told me.

Daren's somewhat contradictory assumption that just because he's an unemployed alcoholic, struggling with suicidal thoughts, TJ is destined to the same fate is also false. Genetics undeniably impact many aspects of life. But the research shows that, in tandem with nurture, nature plays a more probabilistic than deterministic role, Segal said. This is true, even with something that is heavily influenced by genes, such as depression or alcoholism, Wilson said.

This does not undermine the potential to learn from newly discovered relatives. Their medical and mental health history can alert us to what to watch out for. And spotting physical similarities and shared personality quirks can be revelatory and fun, said Peter J. Boni, the author of *Uprooted: Family Trauma, Unknown Origins, and the Secretive History of Artificial Insemination*. Until he met two of his donor-conceived half siblings, "I took my DNA for granted," he said.

There is a tension wrapped up in trying to understand what our genes do—and don't—mean, and as medical providers, tech companies, and government agencies turn to DNA to inform more areas of life, people are going to be swarmed with even more conflicting messages. Companies will try to sell us new ways to maximize our genetics. A.I. will be used to map out connections between profiles of people on sites like GEDmatch and people who have never even taken a test. There will be many more reunions, some bad, some good. Through them all, removing the idea that one is looking at an alternate or future version of ourselves can eliminate pressure. For the woman on the listserv who was meeting with her child's "dibling," that approach seems to have made the event more enjoyable. "My kid seems pretty uninterested in our connection with this other family and was just excited to play," she wrote me when I followed up. "They played hard, indeed."

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