

March 21, 2021

# The New York Times Magazine



**Your Face  
Is Not Your Own**  
How a secretive facial-recognition  
start-up blew the  
future of privacy in  
America wide open.  
By Kashmir Hill

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# The New York Times Magazine

March 21, 2021

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Photograph by Christopher Anderson/Magnum, for The New York Times

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Bouam was born with birth defects most likely resulting from Agent Orange exposure. George Black and the photographer Christopher Anderson visited Bouam's village in October 2019, when he was 13, while reporting on the effects of dioxin exposure among ethnic minority groups in Laos. Page 22.

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**Behind the Cover** *Gail Bichler, creative director: "This week's cover story is about Clearview AI, a company that has scraped billions of images from the internet to create powerful facial-recognition software. For the cover, Zach Lieberman used facial-tracking software to generate a composite image of a face that gives the impression of having been pulled together from multiple pictures." Photo illustration by Zach Lieberman. Photographs by Malike Sidibe and Owen Dubeck for The New York Times.*

**Contributors**

<b>Kashmir Hill</b>	<i>"Your Face Is Not Your Own,"</i> Page 32	Kashmir Hill is an investigative reporter for the business section of The New York Times. She writes about the unexpected and sometimes ominous ways technology is changing our lives, particularly when it comes to our privacy. For this issue, she writes about a powerful new facial-recognition tool that uses billions of images, whose fate in the courts may determine the future of identity. "Technology is rapidly evolving and expanding what is knowable about who we are and how we live," Hill says. "We have decisions to make as a society about whether we will exercise control over what's possible or let the technology shape us."
<b>Christopher Anderson</b>	<i>"A Toxic Legacy,"</i> Page 22	Christopher Anderson is the author of seven photographic books, including "Pia." He lives in Paris.
<b>George Black</b>	<i>"A Toxic Legacy,"</i> Page 22	George Black is a British author and journalist living in New York. He is writing a book about the long-term human and political legacies of the Vietnam War, in Vietnam and Laos and in the United States.
<b>Keith Gessen</b>	<i>"Game Over,"</i> Page 40	Keith Gessen teaches journalism at Columbia and is the author of the novel "A Terrible Country." He last wrote about the group of experts steering U.S. policy toward Russia.
<b>Amanda Hess</b>	<i>Screenland,</i> Page 7	Amanda Hess is a critic at large for The Times, where she covers internet and pop culture. She last wrote for the magazine about the fandom around Ruth Bader Ginsburg.
<b>David Marchese</b>	<i>Talk,</i> Page 11	David Marchese is a staff writer for the magazine and the columnist for Talk. Recently he interviewed Phoebe Bridgers about success and happiness, Cicely Tyson about living life to the fullest and Ninja about the gender dynamics of gaming.

**The New York Times Magazine**

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Readers respond to the 3.7.2021 issue.

**RE: LIFE, DEATH AND GRIEF IN LOS ANGELES**

*Meridith Kohut photographed how Covid has exposed a stark racial and economic divide in Southern California.*

**The despair** in the picture of Maria Salinas Cruz saying goodbye to her husband has made me cry for hours. I have no words. *Melissa Hamilton, New York*



**I was struck** by the dichotomy of the two covers of your March 7 magazine. The front cover depicted two people of color in a despairing embrace that paints a world of overwhelming loss. Contrast that with the bright, blue-sky back cover showing a white couple about to “experience luxury living” starting at just \$2,495 for a one-bedroom piece of the American dream. Together, they are an unintentional comment on our culture. Frame it and send it over to the MoMA. *Jeffrey Lapinski, East Lansing, Mich.*

**My grief pales** in contrast to that of the families portrayed in “Life, Death and Grief in Los Angeles,” but I grieve tonight over the photos and stories. The nation’s appalling disparities, torn open by Covid-19, have been documented for many months in newspaper charts and bar graphs and now-and-gone newsroom videos, but this reporting will stay with me. Lives lost, families forever changed. With moist eyes I pay my respects. *Julie Young, Portland, Ore.*

**While I cannot** pretend to know the difficulty in the publication of The New York Times Magazine, including deciding its layout and attracting its advertisers, I was

emotionally thrown by the placement of the cover photo, which expressed the deepest of grief between two women in the underserved Latino community of Los Angeles, against the back cover of the smiling, white and presumably very rich clientele looking to attract buyers of multimillion-dollar residences in New York. I may be the only person who felt this, but the juxtaposition of these two photos was jarring. Perhaps in the future that might be thought of when balancing both ends. *Kathleen DeBruhl, New Orleans*

**This was heartbreaking.** I read this just hours before having to attend a funeral Mass for my godmother, who passed one month after her two sons, brothers who died from Covid within an hour of each other on the same day. My family has been gutted. I am filled with so many emotions: grief, anger at the inequities that place BIPOC populations at risk, guilt that I have been spared and ultimately a small sprinkle of hope that the disparities that have come to light as a result of this pandemic will be resolved so that no family should have to choose a paycheck over their health. Thank you, New York Times, for your coverage. *A. Alvarez*

**Incredible images and text.** Eye-opening. Masks are coming off in Texas today. Perhaps people do not know someone who has had to watch a family member die on their smartphone. They should look at these images. *Mark, El Paso*

**The photograph of Mr. Cruz** in his hospital room after his ventilator was shut off, his bereaved family watching, was poignant.



**THE STORY, ON INSTAGRAM**

What an image, @meridithkohut. @stevenmcontreras

Also heartbreaking is the sight of the health workers in the room, the lady on the right with head slightly bowed: one of the most important photographs I have seen, and now part of a tragic historical record. *Georgia M., Canada*

**RE: EAT**

*San Sifton wrote about the joys of cooking without a recipe.*

**Love this “recipe”** and its approach! Especially like the suggestion of using the dredging flour to make gravy. I usually end up just throwing it all away, but here’s a perfectly good way to make use of some of it anyway. I love the idea of lemon zest in mashed potatoes. Can’t wait to try! *Sean M., San Francisco*

**Meals thrown together** bring their own excitement to the table, and sometimes to the kitchen too. Especially in times like these, not having to follow directions every time is a godsend. To me, this is what cooking is. *Charles, Toledo, Ohio*



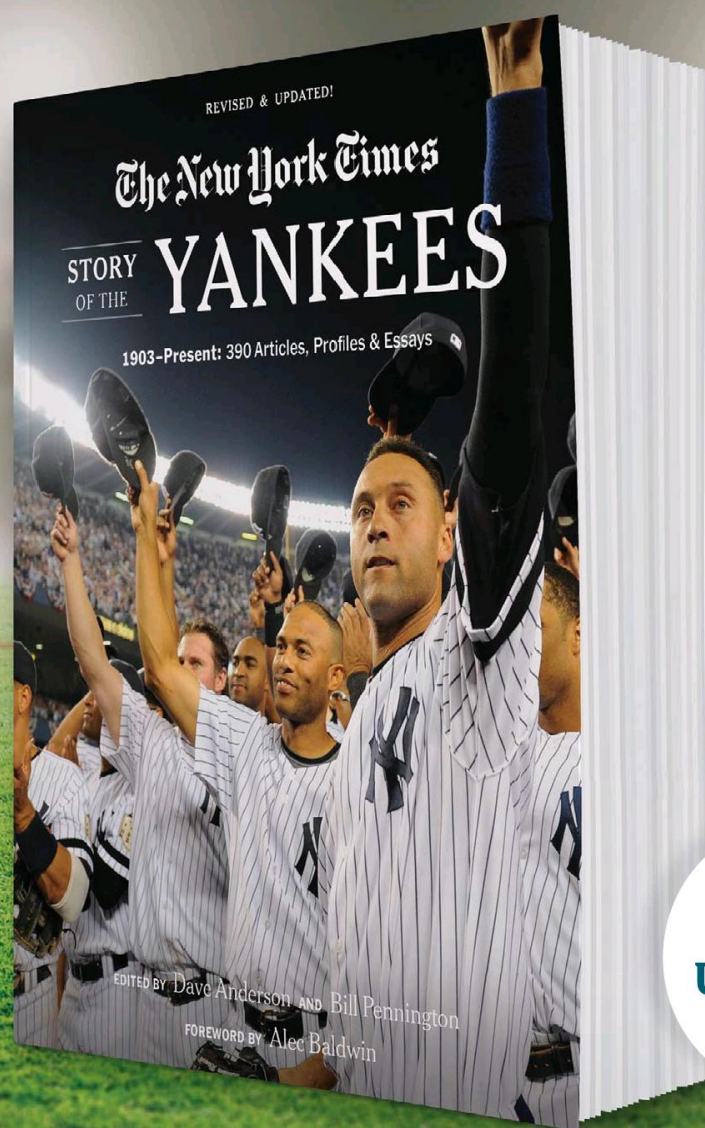
**Love this, and** thank you. I think those of us who came up in immigrant families have pretty deep knowledge of our own cuisine that supplies the building blocks of venturing into other cultural vistas. Sometimes the mistakes are pretty spectacular; but sometimes, the tastes are sublime. Put in the time. Keep a deep pantry of basics, and (during this pandemic, especially) have fun! Even a simple omelet has “cousins” in every cuisine; use what you have, and *mangia bene*. *LLB, Connecticut*

Send your thoughts to [magazine@nytimes.com](mailto:magazine@nytimes.com).

**‘One of the most important photographs I have seen, and now part of a tragic historical record.’**

“Yankee history is rich and deep, with players so iconic their first or last name, or their nickname, is identification enough.”

– ALEC BALDWIN, from the introduction



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# Home Screen



*A shocking video in a dispute over abuse shows how mothers struggle to be believed.* ● By Amanda Hess ●  
A videotape awakens on a jumbled picture. The camera spins around a taupe interior as bars of static drift down the screen. A tipped-over room veers into view: a carpeted floor, the angle of a cracked door. Finally we rest on a polka-dot lump and a soft nest of hair. It's a little girl. She is lying



facedown and speaking to her mother as if underwater. “He touched my privates, and then he was breathing on my leg,” the girl says. “He squeezed me too hard that I couldn’t breathe.” A telephone bleats, the camera jumps and for a moment we regard the girl’s face. Her eyes meet ours. A date stamped in a corner of the screen pins down Dylan Farrow like a butterfly: It is Aug. 5, 1992, and she is 7 years old.

The tape airs at the midpoint of “Allen v Farrow,” HBO’s four-hour documentary series re-examining Dylan’s claim that her father, Woody Allen, sexually abused her that summer in Mia Farrow’s Connecticut lake house. For nearly 20 years, the tape was not shared publicly, but its

existence has long been a flash point in the explosive breakup of Allen and Farrow’s Hollywood romance. Allen claimed Dylan had been coached to smear him on video. He called it a “wicked cassette,” casting Mia as a kind of witch, and said its existence was “tangible proof” that she was an unfit mother. (In a statement timed to the release of the documentary, a spokesperson for Allen and Soon-Yi Previn has said that “absolutely no abuse had ever taken place.”) Mia, in the documentary, says she created the tape out of an impulse to protect her daughter. When Dylan began to speak about the incident, Mia says, she started recording with the intention of showing the tape to the girl’s therapist.

**To document children is to cherish and expose them at once.**

The tape itself resists easy classification. It lies at the improbable intersection of home video and snuff film, and it is unlike anything I have ever seen. Though it does not show an assault itself, its contents feel grimly adjacent. Watching a child talk about being abused, we are witnessing her integrating it into her sense of self. The trauma appears to move through her body and settle in. It’s like seeing a childhood extinguished.

When family photography becomes public record, it takes on a complex emotional charge. Images of children are cast as emblems of motherly devotion, but they are also edged with suspicion. To document children is to cherish and expose them at once.

Above: Source photographs by David Mcgough/DMI/The LIFE Picture Collection, via Getty Images; Nicolas Guerin/Contour by Getty Images;





Ron Galella/Ron Galella Collection, via Getty Images; Brian Hamill/Getty Images. Opening page: Screen grab from HBO.

This was a family created, sustained and broken by images. Woody Allen made films, Mia Farrow starred in them and their extended brood orbited the family business, hanging out on set and occasionally appearing onscreen. But a current of trauma flickered underneath the glamorous mirage of their family life. In the documentary, Mia says that she was moved to adopt two girls from Vietnam after seeing disturbing images of children orphaned by the Vietnam War. In his celebrated “Manhattan,” Allen plays a Woody Allen-esque comedy writer who woos a 17-year-old girl. And in early 1992, Mia would learn that Allen, her longtime partner, was having sex with one of her children, the

then-college-age Soon-Yi Previn, after discovering a stack of nude Polaroids of Previn in Allen’s apartment.

“Cameras go with family life,” Susan Sontag writes in “On Photography,” her 1977 book of philosophical essays. “Not to take pictures of one’s children, particularly when they are small, is a sign of parental indifference.” Mothers in particular are tasked with both cultivating and chronicling their children, and Mia Farrow was a thorough family documentarian. Her lake house is papered with photographs of her many children, and her hand-shot videos of them traipsing around the grounds and bobbing in the water feature heavily in the documentary. In these home movies, Mia the movie

star flattens into an unseen voice, dispassionately interviewing the children about the events of their days and their hopes for the future.

The tape of Dylan fits easily into this rolling family portrait; even as she asks her child to recount terrible details, Mia’s voice is small, unintrusive. But as the existence of the tape became a matter of public record, Farrow’s involvement was inflated into something monstrous, like a lithe hand casting a wolf’s shadow onto a child’s bedroom wall. “The tragedy of programming one’s child to cooperate is unspeakable,” Allen told the press. An electrical engineer he recruited as an expert witness in the couple’s custody trial said at the time that the tape

was doctored and stitched together. “It’s abuse of its own,” the engineer added. “I’m a father, and it really sort of turns my stomach.”

A mother with a camera is selfless and doting, or she is a manipulative exploiter of her children. Even as the Farrow-Allen family was imploding, a parallel controversy was brewing over the photography of Sally Mann, an artist who photographed her three children as they played, sometimes naked, around their Virginia home. In a 1992 New York Times Magazine cover story on what the magazine then called Mann’s “disturbing photography,” the art critic Richard B. Woodward wrote, “Rather than preserving their innocence, the photographs seem to accelerate their maturity.” He asked whether Mann had “knowingly put them at risk by releasing these pictures into a world where pedophilia exists.” Mann pushed back in a 2015 memoir, questioning the impulse to demonize women who take family life as their subject. Seeded in the critique of Mann is the idea that she has corrupted a sacred responsibility by using her children’s images for her own ends. She stood accused of being not just a mother but also an artist. As Woodward put it, “The shield of motherhood can quickly become a sword when turned against her.”

Photographic images are documents of reality that simultaneously arouse the suspicion of being staged, faked, unreal. When the lens is turned on children, that dynamic imprints on the children themselves. Woodward suggests that photographing children has the power to age them; years later, in her memoir, Mann acknowledged that through her photos, and the controversy that swirled around them, her children developed a “third eye” — a kind of grown-up self-consciousness. With every captured image, it seems, the dusting of authenticity around a child erodes to reveal the hardened structures of learned social behavior.

Allen lost his custody suit against Mia Farrow in 1993, but his broader argument proved successful, seeding enough doubt in what he framed as Dylan’s performance that the culture could forget Mia’s tape and continue enjoying *his* movies. Now the tape has resurfaced in a new era, when we are accustomed to a certain transparency in family life. Some days I take hundreds of photographs of my 5-month-old son, capturing a range of expressions that I curate into a kind of baby persona that I exhibit on social media, and this is exclusively how

**The visual vernacular we all speak now means that certain claims must be seen to be believed.**

an extended network of family, friends and strangers have come to know him.

This intensity of documentation is, for better or worse, basically normal, and it doesn’t interfere with any reasonable person’s view of me as a good mother or of my son as a real person. The presence of a camera does not invalidate our experience. Quite the contrary: The visual vernacular we all speak now means that certain claims must be seen to be believed. And as we have grown more culturally literate

around issues of abuse, we have a new understanding of the desperation that women (let alone children) feel to be taken seriously. The reception of Dylan’s accusation has always rested not in the trust we’re willing to put in a little girl but in our level of skepticism of her mother. The tape is still difficult to watch and nearly impossible to interpret. But we can begin to understand why, when confronted with a daughter’s most private pain, a mother might reach for the camera. ♦

Poem Selected by Reginald Dwayne Betts

*I have seen a goldfinch only once or twice in my life, and I learned the word only when I had a bird-feeder and therefore reason to notice. Ada Limón is a straight genius when it comes to noticing. Her poems turn the way horses seem to birth full-grown horses into a metaphor for love, and turn goldfinches into a reminder that there is always a chance at being nurtured by the thing that brings you pain — or at least a possibility that it won’t bury you.*



## The Year of the Goldfinches

By Ada Limón

There were two that hung and hovered by the mud puddle and the musk thistle. Flitting from one splintered fence post to another, bathing in the rainwater’s glint like it was a mirror to some other universe where things were more acceptable, easier than the place I lived. I’d watch for them: the bright peacocking male, the low-watt female, on each morning walk, days spent digging for some sort of elusive answer to the question my curving figure made. Later, I learned that they were a symbol of resurrection. Of course they were, my two yellow-winged twins feasting on thorns and liking it.

**Reginald Dwayne Betts** is a poet and a lawyer. He created the Million Book Project, an initiative to curate microlibraries and install them in prisons across the country. His latest collection of poetry, *Felon*, explores the post-incarceration experience. In 2019, he won a National Magazine Award in Essays and Criticism for his article in *The Times Magazine* about his journey from teenage carjacker to aspiring lawyer. **Ada Limón** is a current Guggenheim fellow and the author of five books of poetry, most recently *The Carrying*, from Milkweed Editions, which won the 2018 National Book Critics Circle Award for Poetry.

*Ken Burns* still has faith in a shared American story. ‘The thing that I’ve learned is that there is no “them.” It’s just us.’



**It cannot be** said that Ken Burns is an unambitious filmmaker. He is, after all, a director who has spent 40 years making documentaries about truly foundational American subjects: the Civil War, Thomas Jefferson, jazz, the Roosevelts, baseball, the Brooklyn Bridge, the Vietnam War, country music. The list goes on. (And on. Think of an iconic American historical figure or event, and there's a half-decent chance that Burns, 67, has made or is currently making a documentary about it.) But Burns's greatest audacity might simply be his belief that the stories he tells about those biggies — and their attendant ambiguities, hopes and disappointments — can resonate with all Americans, across political or ideological divides. "It's important for me to speak to everybody," says Burns, whose documentary about another biggie, "Hemingway" (directed with Lynn Novick), premieres April 5 on PBS, "and to be able to try to remind us that we have things in common."

**In this moment, when there has been such a fracturing of any common American identity, has the project that you're engaged in — of exploring fundamental national stories that might speak to all of us — become quixotic?** That is really hard to answer. There was never a "project." It was never like, Let's do *this*. I've made films for more than 40 years on the U.S., but I've also made films about "us."<sup>1</sup> All of the intimacy of that two-letter lowercase plural pronoun and all the majesty and contradiction of the U.S. But the thing that I've learned is that there is no "them." This is what everybody does: make a distinction about "them." It's just us.

**Is there a belief about America that you held as true in 1981, when you made your first documentary,<sup>2</sup> but that you now hold as false?** Of course. The opposite of faith is not doubt but certainty. Doubt is the mechanics of faith in a way; it's testing and not being too sure. Learned Hand — could there be a better name for a judge than Learned Hand? — said liberty is never being too sure you're right. That's a wonderful, kind of un-American statement. Because we are *certain* that we're right. I am aware that I imbibed, growing up, an exceptionalism-without-question view of us. Which I have spent my entire professional career dismantling — to the place where I then thought I could at least show glimmers of where exceptionalism might take place or has taken place. That's

a bit of a dodge. There's no real answer here. We have to unsubscribe from the dialectic. I remember Tom Boswell, great sportswriter for The Washington Post — I was interviewing him about baseball's performance-enhancing-drugs scandal and Barry Bonds. He said that Keats wrote a letter about William Shakespeare saying that Shakespeare had what no one else had in the same quantity, which was negative capability. The moralist in us wants to judge good or bad, and Shakespeare had this ability to withhold that judgment for as long as possible, to understand the complexity. I think I've learned how to avoid both the ratification of simplistic heroes and villains and to muddy the water with the shades of gray. It's the only way in which actual life takes place. **Ernest Hemingway certainly was a complex figure, but he hasn't exactly been underanalyzed. What is it that you believe you're adding to our perspective**

Above, from top: Ken Burns talking with Ted Williams for "Baseball" (1994); Ernest Hemingway with his sons in the Bahamas in 1935, as seen in Burns's new film, "Hemingway." Opposite: Burns in 1977, on the first day of shooting his debut film, "Brooklyn Bridge." The photo is by Jerome Liebling.

**David Marchese**  
is the magazine's Talk  
columnist.



**on him — or any of these big topics you take on?** With the exception of "Horatio's Drive"<sup>3</sup> and "Vietnam," I don't think we broke new ground. But it's how you tell a story. With, say, "The Civil War," there may have been a handful of documentaries before ours, but none of them began with Frederick Douglass's devastating quote about America, which is essentially, As I look at America's beautiful rivers and star-crowned mountains, my rapture is checked; when I remember that the fields drink daily of the tears of my brethren and the rivers flow with the blood of my sisters, I am filled with unutterable loathing. Race is a central theme of ours, and I've been told for most of my professional life, Would you stop talking about it? I had dear friends — conservative, center-right — who would say when Barack Obama was elected, "Now will you shut up?" And I held up the Onion headline after that election: "Black Man Given Nation's Worst Job." I

said, “Wait till you see what happens.” It’s the worst way to be vindicated.

**I read that you looked at the idea of doing a fiction feature film. Did you have a specific idea? Please tell me you wanted to direct psychedelic sci-fi.** I wish. Or some sex film. That would be something you could write home to your audience about. So listen, by the time I hit college, I had seen hundreds of feature films. I wanted to be Howard Hawks. I wanted to be Alfred Hitchcock. Then I went to Hampshire College, and my teachers were all social-documentary still photographers. I remember I took this line that I had memorized from Andrew Sarris’s “The American Cinema” about Nicholas Ray, who directed “Johnny Guitar,” which was written by Philip Yordan. Sarris says, “Philip Yordan set out to attack McCarthyism, but Ray was too delirious to pay any heed as Freudian feminism prevailed over Marxist masochism, and Pirandello transcended polemics.”

**Obviously.** [Laughs.] I spent high school trying to parse that! Anyway, I went to my mentor<sup>4</sup> my first year at Hampshire — this was before he was my mentor — and I was trying to impress him. I was in his office and said that Sarris sentence, and he walked out from his desk, took me by the elbow, put me out in the hall. So there was my warning. What did I want to be? I realized that I had been born in still photography and that documentary is what I wanted to do. I like my day job, but I am always curious about a feature film. In the ’90s I was working on “Baseball,” and there was a movement afoot to make a film about Jackie Robinson. I’d been called in, probably as an executive producer, maybe a director — it never happened.<sup>5</sup> I don’t have a burning desire. You know, the same laws of storytelling apply to everybody. I can’t make stuff up; Steven Spielberg can. But we obey the same laws of Aristotelian poetics. Everybody does.

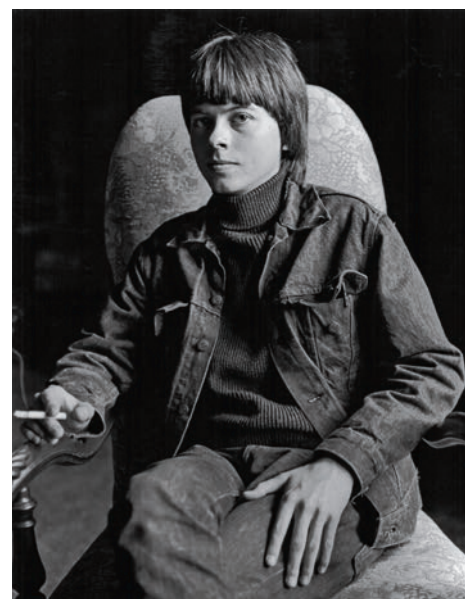
**Werner Herzog is a documentary filmmaker who has his own set of laws, and I wonder —** I’m so glad you said Werner! I’ve been friends with him for 30 years. We were once on a panel at Telluride: D.A. Pennebaker and Chris Hegedus, Michael Moore, Werner and me. Werner in his thick accent stops the proceedings and says, “I am interested in an ecstatic truth. My friend Ken, he’s interested in an emotional truth. You, Michael, with your big belly, you’re interested in a physical truth,” and he turns to Pennebaker and

Hegedus and says: “And you: I think you are my enemy. Cinéma vérité is the cinema of accountants.” For Werner it doesn’t matter what rules you violate. If it says, “No Jaywalking,” he will jaywalk.

**But where are your lines in that regard? I’m thinking of that great story Dolly Parton tells in “Country Music” about “I Will Always Love You.” She says that Porter Wagoner told her that if she’d let him produce the song, then he’d let her leave their show to do her own thing. And she says that’s what they did. But Porter Wagoner didn’t actually produce that song.<sup>6</sup> So how do you determine what material that is not 100 percent factually true can be included in the pursuit of greater truth?** I do understand that

we have to present some leeway with the talking heads to tell something and that we don’t have to be constantly chastising them with “not quite true.” It may be that’s what Porter said to Dolly. It may not be what actually happened, and that may be immaterial in the storytelling required to do that scene well. We don’t then come back and do the “errata,” as Benjamin Franklin called it, or the corrections, as your newspaper does. There are no rules that are printed, but I can tell you that we made a decision in “The Civil War” that to the best of our ability we would never show a dead person on the ground who wasn’t from that battle. But we’re often taking poetic license, not in the conscious, defiant, exuberant way that Werner does, but in a very anxious, cautious way. Half of the “Jazz” series isn’t showing a picture of jazz. If we’re talking about the debut of — I’m making this up — Louis Armstrong when he comes from Chicago to New York, and the image we have is from the year before or year after, we have huge discussions about things like that. Sometimes you just say, “That works.” We’re always going up to a line in which we are painfully aware that if we *cross*, it goes from poetic license into a form of manipulation if not misrepresentation. We tend to err conservatively.

**You’ve talked before about the connection between your work in bringing the past to life and your mom’s death.<sup>7</sup> Is the explanation for what you do that simple? That you’re driven to make historical documentaries because it’s a way of waking the dead?** “Driven” sounds too easy, but you wouldn’t be talking to me if my mom hadn’t died. That’s the truth of it. In April, I will have been without a



**1** In addition to the films already mentioned, Burns has made documentaries about the national parks, America in World War II, Mark Twain, Jack Johnson, Lewis and Clark and the Statue of Liberty, among other subjects.

**2** “Brooklyn Bridge” was Burns’s first feature documentary. It was nominated for an Academy Award for Best Documentary Film.

**3** A documentary from 2003 about America’s first cross-country car ride, undertaken in 1903.

**4** The photographer and documentarian Jerome Liebling.

**5** Burns did ultimately make a documentary about the baseball pioneer, “Jackie Robinson” (2016).

**6** The production credit on Parton’s 1974 classic went to Bob Ferguson.

**7** Burns’s mother died of cancer in 1965, when he was 11.

mother for 56 years. That is way too long. Her name was Lyla. The half-life of grief is endless. But it has also been hugely productive. I remember being interviewed in the ’90s by two sociologists about the early death of parents, and their last question was, “What is your mother’s greatest gift?” And I said “dying” and then started to cry. I didn’t want her to die, but I don’t know what I would do without the loss as being the engine of exploration, of confidence, of bravery. What idiot would take on all of these things and think you could do it? It’s pretty absurd. So there it is. But the good postscript to this: Near you in Brooklyn, David, is a little girl who is 10 years old whose name is Lyla. My oldest daughter named her first child after my mother, and a name that was never spoken except draped in black crepe now gets spoken all the time with joy and love.

**Do you wonder what your mom would make of your work?** All the time. And it just — I’ll start to cry right now. Only because I sort of feel that she must — she’s present. There’s not a day that goes by where I’m not aware of her. But at the same time there has been that friction that has helped me to create, so I can’t help but honor that. I feel very fortunate that I’m doing what I’m supposed to be doing. ♦

*This interview has been edited and condensed for clarity from two conversations. A longer version is online at nytimes.com/magazine.*

# Is It OK to Scour for Surplus Covid-19 Vaccines When You're Not Otherwise Eligible?



*I'm a college student, and I recently learned that my city is going to be opening up spots on the Health Department website for anyone to be vaccinated if there is a surplus of vaccines. We're still in the first phase of vaccination, but if I were to look frequently at the vaccination website, I could in theory get an appointment.*

*Since I am a healthy, young person who is not an essential worker or at risk, should I wait to get vaccinated in hopes that someone at greater risk or more essential could take the spot? Or should I keep looking at that website and take the dose as soon as it appears? I'm not taking someone else's spot, or am I?*

Ben, Montana

**With anything perishable** — whether it's a head of lettuce or a defrosted carton of Covid-19 vaccines — you can have excess and spoilage amid an overall shortage. The minimum Pfizer vaccine order is a tray with about 1,200 doses; once the vials begin thawing, they have to be used in five days. With all the authorized vaccines, a

vial, once opened, must be used within six hours — for Johnson & Johnson's, it's two hours at room temperature. Each Pfizer vial has up to six doses. Johnson & Johnson, which has a minimum order of 100 doses, puts five doses in a vial; Moderna will soon put 14 doses in each vial.

The point is that vaccines don't come as "loosies." Vaccination sites can misjudge the number of sign-ups, and even if everything is properly planned, there are sometimes no-shows. Even when a site has a standby list of qualified recipients, there will be occasional instances in which a vaccine will go to waste unless the eligibility rules are suspended.

Perhaps the question isn't whether you'd be taking someone else's spot but whose spot you'd be taking. I think of the verse that we apparently owe to the 19th-century English jurist and wit Charles Bowen:

The rain, it raineth on the just  
And also on the unjust fella.  
But chiefly on the just, because  
The unjust steals the just's umbrella.

In a situation where expiring vaccine doses will be offered to all comers — lest they simply go to waste — you have no reason to think that the dose you eschew will go to someone in greater need; if those concerned with justice demur, the dose may simply go to those not so concerned, assuming it goes to anyone. There's always going to be a trade-off between getting the country swiftly vaccinated and exquisitely fine-tuning the rollout to reflect each person's risk profile. If a sporadic all-comers approach is the best way to prevent wasted doses, it isn't unfair, and you're not wrong to participate in it.

There's one other thing to bear in mind. Although you're very unlikely, at your age, to become seriously ill with Covid-19, you can still spread it. In fact, it's not uncommon for people who never show serious symptoms of the disease to transmit the virus. The available evidence suggests that once you're vaccinated, transmission is less likely, perhaps much less likely. As with wearing a mask, then, your getting vaccinated helps protect others as well as you. It's much better that a dose goes into your arm than into the trash.

*I live in a state that is prioritizing vaccinations for those over 65 and anyone over 16 with chronic health conditions. As elsewhere, the rollout has been less than smooth: It has been reported that last weekend, when the county announced that it had 9,000 appointments available, it received over 30,000 simultaneous phone calls. There is no "proof of chronic condition" required, and our state has made it clear that it is trusting in the honor system for those seeking vaccination.*

*I'm 44 years old and reasonably healthy. I've been overweight since childhood. At times in my adult life, I've been much heavier than I am currently, which is hovering right at the border between "overweight" and "obese" (classified as a B.M.I. of 30 or higher; I'm around a 29 right now). My state considers anyone who is classified as "obese" to be in the priority group for vaccinations. Is it ethical for me to bend the definition of "chronic condition" and, in theory, jump ahead of someone else who might be in a much higher risk category?*

Name Withheld



## Bonus Advice From Judge John Hodgman

Rebecca writes: My mom set up her crockpot as a humidifier in our Airbnb's bathroom (away from her dog). She wanted to leave the lid off so the steam percolates quickly, and my dad wanted to partly cover it, as he thought it wouldn't affect the steam. I think my mom was right, but my husband agrees with my dad!

I refuse to decide because: A) I'm not an expert on steam dispersal, and B) I am ruling against all of you. I'm aware that MacGyver-ing your slow cooker into a humidifier is a popular internet meme. Why ever your mom is dragging her crockpot to an Airbnb is her biz, but humidifiers are supposed to ease your sleep, not worry you about ruining someone else's floor, burning your dog's tongue and dragging your family into a thermodynamic fight spiral, all while NOT making delicious stew! Here's a better life hack: Humidifiers are for sale. Buy one.

To submit a query: Send an email to [ethicist@nytimes.com](mailto:ethicist@nytimes.com); or send mail to The Ethicist, The New York Times Magazine, 620 Eighth Avenue, New York, N.Y. 10018. (Include a daytime phone number.)

**You're asking whether** you may lie to get vaccinated quicker. My answer is: No. But there's an interesting question you didn't ask. Would it be OK to go on an eating binge to get your B.M.I. up to 30? In this scenario, you wouldn't be prevaricating when you applied for an appointment. Surely, though, you'd still be abusing the system. Any criterion that can be hacked like that is problematic precisely for this reason. To be sure, the B.M.I. thresholds that states use (in some it's 30; in others 40) are inherently arbitrary: A study in The Proceedings of the National Academy of Sciences last fall suggested that the rate of hospitalization for Covid-19 increases with our B.M.I. in linear fashion, starting with those only modestly overweight. That suggests that keeping yourself at a healthy weight rather than raising it may be the better option.

*I have worked at farmers' markets in New York City for many years, but since the pandemic struck, I've transitioned to full-*

*time communications work at a church (producing their new livestream, among other things) and put in just one day a week at the market. As a market worker, I'm newly eligible for the Covid vaccine. I want to get vaccinated as soon as possible, for my own safety and for the good of everyone, but in truth my work and lifestyle enable me to stay quite isolated and safe from infection. Aside from my obvious advantages — or better put, privileges — of being highly computer literate, fluent in English and having the time to navigate the byzantine vaccination system, I feel that my limited exposure as a one-day-a-week essential worker makes my claim to vaccination doubtful. I want this vaccine to be rolled out in an ethical manner, and ideally privilege won't play a role in it. But is eligibility eligibility, plain and simple?*

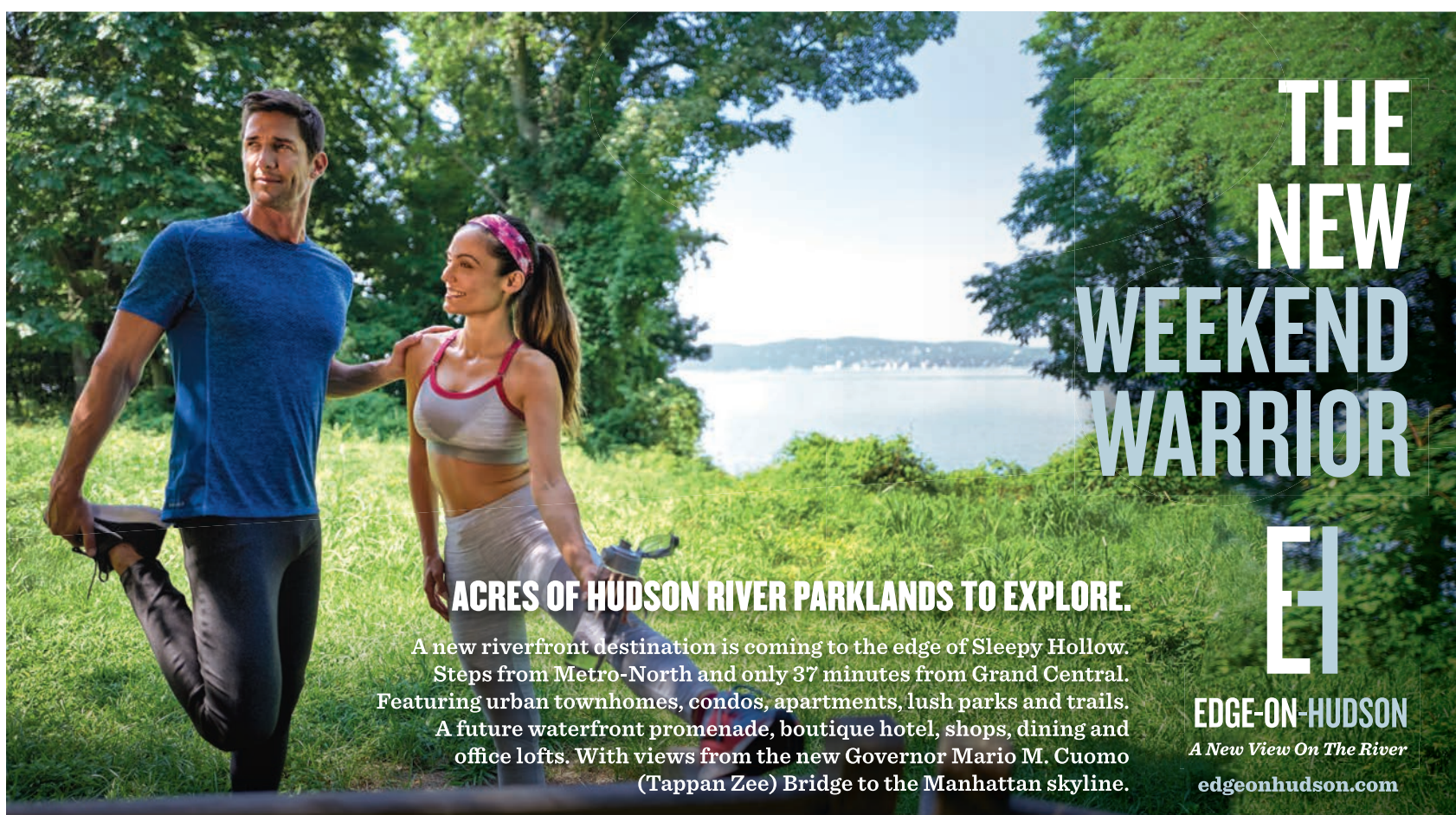
Damon, New York

**What's important is** to try to remove barriers to vaccination — including

**There's always going to be a trade-off between getting the country swiftly vaccinated and exquisitely fine-tuning the rollout to reflect each person's risk profile.**

those posed by not having access to transportation, to the internet or to English. Enlisting churches and other community organizations can help reach the city's underserved and sometimes vaccine-hesitant populations. In fact, your work with the church might enable you to assist here. Once a reasonable system is in place, however, eligibility is, indeed, eligibility. You're not proposing to use any inside connections to jump the line. You will have the advantages of your skills and savvy, but you probably won't qualify for the ZIP-code restricted FEMA vaccination sites that are specifically aimed at the city's vulnerable communities. All of which is to say that your commendable concern for justice doesn't mean you should reject the umbrella on offer. ♦

**Kwame Anthony Appiah** teaches philosophy at N.Y.U. His books include "Cosmopolitanism," "The Honor Code" and "The Lies That Bind: Rethinking Identity."



# THE NEW WEEKEND WARRIOR



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His sister began to suffer mysterious spells — and died 12 days later. Now he had them, too. The clock was ticking.



The 35-year-old man rose abruptly from the plastic chair in the waiting room at the Health Sciences Center Emergency Department in Winnipeg, Manitoba. He lurched toward the door, arms held stiffly before him as if warding off something only he could see. “I gotta get out of here,” he muttered. His eyes looked unfocused as he glanced at the family he didn’t seem to recognize. His mother hurried to his side. “It’s OK, Sean,” she murmured in his ear. “We’re here with you.” She took him over to his seat. And then, just as suddenly, he was back to normal, back to the man his family knew and loved.

This was why Sean was in the E.D. that day. He had been completely healthy until the day before, when his brother-in-law found him wandering through the house, confused. He didn’t seem to know where he was, or even who he was. But by the time the ambulance reached the community hospital near their home, the confusion had cleared, and he seemed fine. The doctors in the E.D. ordered a few tests and, when they were unrevealing, sent him home. Only a few hours later, it happened again. That’s when they brought him here, to the biggest hospital in the city. By the time they arrived, the bizarre episode had subsided. A second attack in the waiting room lasted only a few minutes, so when the E.D. doctors saw him, he was fine.

These doctors also wanted to send him home, but the mother was adamant. Her 30-year-old daughter, Andrea, was admitted to another hospital in the city just three months earlier. Andrea had episodes of confusion, too. And she died in that hospital 12 days later. No one understood what her daughter had or why she died, the mother told the doctors. She wasn’t about to let the same thing happen to her son.



#### Re-enacting His Sister’s Symptoms?

And so Sean was admitted for observation. Over the next two days, he had many of these strange episodes. He would try to leave the unit. He wouldn’t answer questions; he didn’t even seem to hear them. He looked afraid. And then it would be over. He was seen by specialists in internal medicine and neurology. He had an M.R.I., a spinal tap and many blood tests. When none of those tests provided an answer, the doctors worried that he had been so emotionally traumatized by his sister’s sudden death that he developed psychological



symptoms, something known as conversion disorder. He was transferred to the psychiatric unit for further evaluation.

What struck Dr. Kenneth Zimmer, the psychiatrist caring for Sean, was how normal he seemed between these episodes of confusion and fear. Zimmer reviewed the results of the tests done so far. The blood tests and spinal-tap results were unremarkable. Two head CTs were normal. The M.R.I. was hard to read because the patient moved in the scanner and blurred the images, but the radiologist said there wasn't anything obviously abnormal. His EEG was interrupted when he sat up after the technician startled him. (It's part of the study.) But what they got before that interruption seemed fine. With every normal test, the likelihood that this was a psychiatric disorder increased. And yet Zimmer was worried by Andrea's similar illness and her sudden unexplained death.

Zimmer had his resident reach out to the hospital where the sister died. What did they know about the cause of her death? Very little. An autopsy revealed the cause of death was swelling in her brain. The cause of the swelling was still unclear.

Zimmer suspected this wasn't a psychiatric disease and felt certain that the medicine and neurology teams would figure it out. Sean's parents did not share that confidence. Andrea's doctors had looked at all the usual suspects, they had been told. Sean's doctors needed to look further, but it wasn't clear that they would or even could. They sent a letter to the hospital's patient advocate asking that their son be transferred to a facility capable of providing appropriate testing and expertise.

A neurology resident recently assigned to the man's case shared their concern. Andrea had been hospitalized for only 12 days. Sean had been in this hospital for four, and they were no closer to an answer than when he arrived. The resident tacked up a calendar in the neurology team's work room. She figured they couldn't count on his having more days than his sister.



### Something Genetic?

The patient had another EEG. He moved too much for the team to see a lot, but what could be seen was clearly abnormal. A second M.R.I. was even more revealing, showing a subtle abnormality in a region called the pons that was just like one noted in Andrea's imaging. To

the resident it was obvious that this was not psychiatric. But what was it? She had never seen or read about anything like this. Neither had the attending physician on the case. At the end of each day, the neurology team would meet to take stock of where they were and what more they could do as they crossed off one more day.

It was the resident's third or fourth day without an answer when someone on the team suggested consulting the metabolism service. Metabolic diseases are disorders that interrupt the processes that turn food into energy at the cellular level. Most of these disorders are inherited — caused by genetic mutations that alter the structure or function of one of the body's tools needed to metabolize carbohydrates, fats, proteins and other nutrients. And while most of these diseases are rare, there are many of them. It is estimated that metabolic diseases affect up to one in 1,000 people. Still, most show up in infancy or childhood, not at age 35.

The neurology resident called a friend on the metabolism service, Dr. Tyler Peikes, who immediately went to see Sean. He reviewed the records, examined the patient and got the story from Sean and his family. It didn't sound like any of the metabolic diseases he knew. The rapid course of the sister's illness was uncharacteristic. He ordered tests to look for those diseases that usually appear intermittently.

The neurology resident continued to look for answers. And slowly the results

trickled in. It wasn't an exposure to a metal like arsenic or mercury. It wasn't an autoimmune disease. It wasn't an infection. At the end of each day, the resident made another X on her calendar and went home worried. The only hopeful sign was that the patient's episodes were becoming less frequent. She wasn't sure why but hoped it meant they would have enough time.



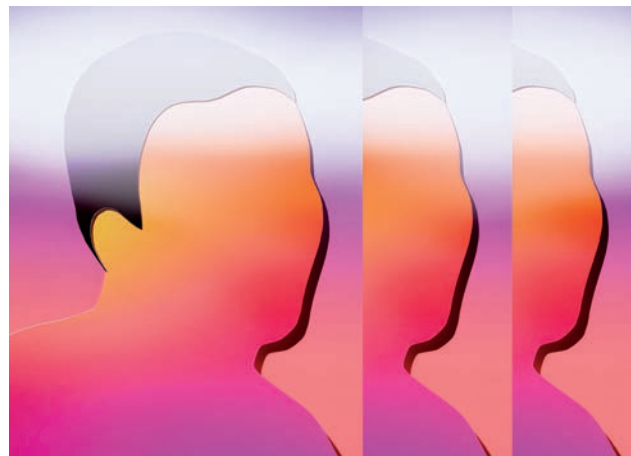
### Ordering the Right Test

Finally, on Day 11, one of the tests that Peikes ordered came back positive. The patient had a rare form of a rare disorder called maple syrup urine disease (M.S.U.D.). Patients with M.S.U.D. are born with abnormalities in the machinery used to break down certain amino acids, the building blocks of proteins. This causes the accumulation of unmetabolized protein components, which can damage the body. Untreated, the disease can result in significant, often fatal swelling of the brain. The name comes from the smell of maple syrup in urine and sweat sometimes caused by the buildup of amino acids during episodes of protein overload. The patient never experienced this.

The frequency of a patient's attacks, and the age at which they begin, depend on how badly the machinery is broken. In intermittent M.S.U.D. — the version this patient had — the body can handle low levels of amino acids, but a high-protein meal or severe physiological stress can overwhelm the system and allow toxic components to build up. A simple blood test provided the answer. Eventually genetic testing revealed the specific defect. A subsequent test on Andrea's tissue revealed the same abnormality. Patients with M.S.U.D. must maintain a low-protein diet. That's the only way to prevent these crises.

It has been more than two years since Sean got his diagnosis. He says he misses the occasional steak or burger, but the memory of what happened to him and his sister is enough to keep him away. It was Sean's family that brought this story to my attention. His mother hoped that by sharing her children's story she could help doctors and families consider the possibility of these rare metabolic diseases when patients present with a psychiatric or neurological disease that no one can figure out. "It's not a hard test," the mother said. "You just have to think of it." ♦

**Lisa Sanders, M.D.**, is a contributing writer for the magazine. Her latest book is "Diagnosis: Solving the Most Baffling Medical Mysteries." If you have a solved case to share with Dr. Sanders, write her at [Lisa.Sandersmd@gmail.com](mailto:Lisa.Sandersmd@gmail.com).



# Chinese Dramas

By Victoria Chang



**When I tell** people my sister is 14 months older than me, some marvel at how close we must be. Others joke that my parents got busy fast. The joke is true, but my sister and I have never been close. We couldn't be more different. I'm louder, taller and blunter. She's quieter, shorter and sweeter. When we were young, I barreled through Michigan forests on my bike while she buried her head in Nancy Drew books. Because my sister was more obedient and a better student than I was, I perceived that she was the favored child.

While my sister and I have always gotten along, our relationship bears the tension of that childhood dynamic. For years we weren't especially friendly and spoke only when necessary. Twelve years ago, our father had a stroke and suffered from aphasia. Around the same time, our mother found out she had pulmonary fibrosis. My relationship with my sister soon worsened. Because I lived closer to my parents, I managed all the day-to-day caretaking; from afar, my sister lobbed suggestions that felt

I never imagined how dramas would help me build a new relationship with my sister.

like criticisms. After our mother died in 2015, it was hard to imagine that our relationship could ever improve.

When the pandemic descended, I turned to Chinese dramas to ease my anxiety. That felt natural: My mother also loved watching dramas. When I was young, she and her friends would share entire VHS tape sets of shows sent from Taiwan. Before my mother died, she was constantly hunched over her laptop, mesmerized by her favorite shows. Perhaps these dramas were

a form of escape, her only connection to her childhood in China and Taiwan.

Without my realizing it, Chinese TV — which dates back to 1958 — had become an enormous export over the past decade. One research firm estimated in 2019 that over half the world's new TV dramas were now coming from China. China is the second-largest market for TV programming after the U.S., and Netflix has been ramping up production of Asian dramas because of booming demand. Apps such as Rakuten Viki and iQiyi have been feeding this bottomless appetite, with the subscription base of Rakuten Viki growing by more than 80 percent since the pandemic began.

I started with one of the most popular dramas. “The Story of Yanxi Palace” takes place during the 18th century in Beijing and tells the story of Wei Yingluo, a palace maid who enters the Forbidden City to investigate her older sister's death. Along the way, she falls in love with Fuheng, a palace guard, becomes a concubine of the emperor and gets entangled in all the deceit and machinations of palace life. Within two weeks I watched 70 episodes.

Funny as it might seem, what moved me most was the simple fact of seeing an entire cast speaking Mandarin. I grew up in a mostly white town where survival meant assimilation. Whiteness came to organize my consciousness, as it has for large swaths of the world. After all, American culture and Hollywood have long been the lingua franca of global entertainment. I began to understand why Asian dramas are so popular: While Asians are often relegated to bit and stock roles in American television, these shows put Asians at the heart of the action, participating in the full spectrum of human drama.

All the while, as I watched “Yanxi Palace,” I found myself missing my mother more than ever. One day, I decided to text my sister what I might have normally told my mother — that she *had* to watch this show. At that point, my sister and I only texted once every few months, usually to discuss our father's caretaking. Maybe she was feeling a sense of loss, too: Surprisingly, she began to watch along with me. Soon we were live-texting as we watched, and I marveled at the ornate costumes, detailed settings

**While Asians are often relegated to bit and stock roles in American television, these shows put Asians at the heart of the action.**

**Victoria Chang** is a writer living in Los Angeles. Her latest book of poems, “Obit” (Copper Canyon Press), was longlisted for the 2020 National Book Award in Poetry.

and nuanced performances that graced the show. Our appetite grew until we were consuming other dramas, like the hit “Go Ahead,” an exceedingly heartwarming story about three children from unstable households who come together and form a new kind of family. The more dramas we watched, the more involved our conversations became. We wondered what it would be like to grow up in China with Chinese people like us.

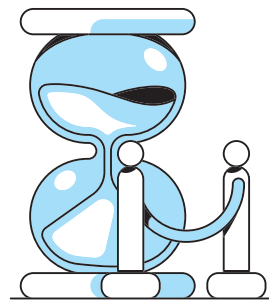
Over the past year, my sister and I have watched so many Chinese dramas together that I've lost count. At the end of a day spent teaching via Zoom, we'll fire off texts to each other, trying to understand a bizarre plot point: Did that kiss really happen, or was it a dream? Or

I might confess that one of my favorite actors is the 21-year-old heartthrob Song Weilong in “Go Ahead.” Recently, to my chagrin, we figured out that his parents are the same age as us. We laughed.

It has been a long year of repeated losses for us all, but amid these losses, I've gained a sister. I never could have imagined how my mother's absence would lead me to yearn for my Chinese roots; how Chinese dramas could fill that void; or how dramas would help me build a new relationship with my sister — a chance to make up for lost time. As I search for something new to watch with my sister, it dawns on me: Our mom would have loved watching these shows with us too. ♦

Tip By Malia Wollan

## How to Wait In Line



“The queuing delays you experience are a minuscule fraction of your total hours of life, so don't let them be a major source of anxiety,” says Richard Larson, 77, a professor at the Massachusetts Institute of Technology who has studied queuing for 40 years. Any group of people waiting their turn for a service, wherever they are in physical space, is a queue. Larson came up with mathematical methods for predicting what he calls slips and skips, where a newcomer arrives after you but gets the service first: They skip up, you slip back. Such cutting doesn't need to be intentional to feel unjust. “If you are the victim, you incur a psychological cost,” Larson says. “You can get angry or even violent.” Make every effort to relax instead.

In the last 15 years or so, Larson has noticed an increasing number of queues that allow people to buy their way into a faster lane. He's unsure whether that could change the culture of how Americans line up or their proclivity to cut, but it might. A well-designed line makes cheating nearly impossible. Should you find yourself in a vastly more complicated and chaotic one like, say, a queue to get hundreds of millions of people vaccinated for Covid-19, be patient. Don't try to cut ahead of others just because no one is standing behind you to see it.

While you wait, let yourself be distracted by a book, music or whatever occupies your mind. Sometimes, distraction is built in by designers. “Disney is a queue factory, and yet everyone is happy,” Larson says. If you find yourself growing frustrated in a line, look behind you. Researchers have found that the more people you see, the more likely you are to stay in line and maybe even be pleased with your position.

There is camaraderie in wanting something en masse; consider it a form of community. Sometimes profound human experiences are shared while biding time. Larson recently got his final Covid-19 vaccination at a clinic near his home. Normally, he makes every effort to avoid queues, but he relished this one. Many around him were elderly, some in wheelchairs, some with helpers. There was collective elation on their faces as they waited together, a lightness that only comes when fear begins to lift. ♦

## *The Restrained Sweet Treat:* A luscious, crisp peanut-butter wafer cake that won't give you a toothache.



I have almost no sweet tooth. My ideal dessert is a fat hunk of one of those blue cheeses that scratch the roof of your mouth and make your eyes water. All my pastry-chef friends have generously fielded my impossible questions over the years about the kinds of not-sweet sweets I wished I could create: Hi! I want to make granola bars but I want them to taste like Caesar salad. Any ideas? Hi, I'd

like to make savory meringues with saffron and tomato paste, is that possible? Could plain, salted club-soda Jell-O work, or do I have to use sugar? I even make my go-to cocktail, a gin and tonic, without regular tonic: I use light tonic and a splash of plain seltzer, or as it's called, a "gin and sonic."

This year, my wife, Ashley, asked if I wanted to try a dry January and go 31

Sturdy and silken:  
peanut-butter  
wafer cake.

days without alcohol. In the first 48 hours, I ate through a whole Entenmann's Louisiana Crunch Cake from the supermarket. By the end of the second week, I'd eaten a pint of ice cream and a box of cellophane-wrapped Little Debbie Nutty Buddies. I was stunned to discover not a longing for the missing gin but a powerful craving for sugar. In a span of two weeks, I'd eaten more

cake, ice cream and sweet treats than I might, under regular circumstances, eat in two years.

Replacing an overgenerous but satisfying nightly cocktail hour with insane, ersatz supermarket-shelf-stabilized low-quality sugar didn't seem like the right way to go, but I said I'd do the dry month, and I wanted to know that I could. While the Nutty Buddy, with its peanut-butter filling, wafer layers and milk-chocolate-y coating, was a bomb of dextrose, chemicals and "chocolate" that felt like wax in the mouth, it had become my very favorite new craving. In a lot of ways, it was right up my alley: sweet but savory, crisp and plain and nutty. As usual, though, I wondered if I could make my own version with, you know, hardly any sugar, and maybe an extra bitter, high-quality chocolate. I texted my friend Katherine Yang, a pastry chef, and she replied with a recipe.

She is a dessert maker I've known for over 10 years and has a cake business called Gigi Blue. She worked at Prune as a reservationist, when she was still incubating Gigi Blue — tweaking her flavors and recipes and slowly building her client base. Her signature item, before she expanded her line to include gorgeous, perfectly proportioned layer cakes and cookies, was what she calls a bell, which is essentially a superb iteration of a Ring Ding, a two- or three-bite individual chocolate cake, cream-filled and chocolate-glazed. When she was developing her recipes, she would bring samples of these bells — raspberry cream, salted-caramel cream, espresso cream — to the restaurant and leave them out for the staff to guinea-pig, and to be professional and collegial, I'd cut out a little wedge and have a taste. When she brought the peanut-butter-cream-filled, I ate two whole ones, wedge by wedge, and could've gone for a third. I adore her palate; she makes things deliciously sweet, not toothache sweet. Years later, when I married Ashley, I ordered a hundred of those bells for my wedding "cake."

Katherine's work is careful, organized and well researched. Maybe even obsessive, in the very best way. After 20 years of building a résumé that spans the large-scale production of the Waldorf Astoria, the precise fine dining of Daniel and the high standards of Thomas Keller, she still

**It was right up my alley: sweet but savory. I wondered if I could make my own version with hardly any sugar.**

questions if she has the necessary cachet for a brick-and-mortar shop of her own. She is never sloppy or off the cuff, and her desserts are gorgeous, balanced and technically superior. This peanut-butter cream filling is sturdy — the cornstarch spares you a lot of heartache when you're cooking it, because the eggs won't curdle as the custard boils. Many cornstarch custards do well with a few cubes of cold butter stirred in while the custard is still warm, to loosen and silken the mouth feel. But Katherine's use of commercial creamy peanut butter results in the perfect consistency: luscious and craveable.

I dip the wafer sheets in tempered chocolate for snap and gloss, and decorate the perimeter with a finely ground roasted-peanut mixture while the chocolate is still tacky, so that it will stick. Piping the peanut-butter cream, once fully chilled, with a star tip is easy and makes for a rather impressive edge on the layer "cake," but after it's assembled, it should be eaten soon before the waffle-y wafer loses its crisp, dry quality — so it's best for a group and a celebration. Or, if like me you're having a dry period, it feeds just one, beautifully.

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#### **Peanut-Butter Wafer Cake**

Time: 35 minutes, plus chilling and drying

##### **For the peanut-butter pastry cream:**

- 1½ cups/360 milliliters whole milk
- ½ cup/120 milliliters heavy cream
- 1 large egg plus 1 large yolk
- ⅓ cup/67 grams granulated sugar
- 1 tablespoon cornstarch
- 1 tablespoon all-purpose flour
- ½ cup/133 grams smooth, commercial peanut butter (preferably Skippy)
- ½ teaspoon kosher salt

##### **For the layers:**

- 8 ounces/225 grams high-quality bittersweet-chocolate shards/chips (1½ cups)
- 1 tablespoon shortening
- Heaping ⅓ cup/60 grams dry-roasted salted peanuts
- 1 teaspoon confectioners' sugar
- 4 (9-inch-round) plain or cocoa wafer sheets

1. Bring milk and cream to simmer in a heavy 1-quart saucepan over medium heat.

2. Whisk egg and yolk in a medium bowl. Add sugar, cornstarch and flour, and whisk until very well incorporated and almost fluffy.

3. Whisk hot milk mixture into egg mixture. Return mixture to saucepan, return to heat over medium and boil 1 minute, whisking constantly, or until thickened. Remove from heat. Whisk peanut butter into hot pastry cream.

4. Strain the mixture through a fine-mesh sieve into a clean bowl, stir in salt, then cover with plastic wrap directly on cream to prevent skin from forming. Chill at least 3 hours, or overnight.

5. Prepare the cake layers: Bring a wide pot of shallow water to a very gentle simmer over low heat.

6. Place ⅔ of chocolate shards plus solid shortening in a clean 12-inch skillet set over the gently simmering water, and melt slowly. Bring to 110 degrees, and stir well to create a glossy, uniform consistency. Seed in remaining chocolate shards, and stir until completely melted and glossy, and chocolate tempers to 91 degrees. Remove from heat or turn off simmering water (or both).

7. Pulse peanuts in food processor until coarse meal. Remove, and stir in confectioners' sugar.

8. Drop one wafer sheet into chocolate, giving it a tiny swirl to make sure the entire surface underneath is coated. Retrieve the wafer with tongs, tweezers or two forks, and hover it over the chocolate until dripping stops, then invert wafer, chocolate face down, on a baker's rack set over parchment to "drain." You want a film of chocolate to glaze the waffling, but you don't want to fill the holes enough to pave them over entirely. Repeat with remaining wafer sheets, tempering the chocolate if needed. While chocolate is still tacky, turn wafers chocolate-side up to finish cooling. (Use an offset spatula if needed to gently release wafer from rack.) Before chocolate sets fully, heavily ring edges of 2 of the chocolate-dipped wafer sheets by sprinkling the prepared peanut mixture in a 1-inch rim. Allow to cool and harden in a cool, dry place.

9. To assemble: Pipe or spread ⅓ of the peanut-butter pastry cream uniformly among 3 of the wafer sheets (on the chocolate-film side to prevent sogginess later), reserving 1 of the peanut-edged sheets as the topper.

10. Refrigerate until ready to serve.

11. When ready to serve, stack the sheets chocolate-side up, using the peanut-crust sheet on the bottom, the other two plain sheets in between, and top with the last peanut-crust chocolate wafer sheet.

*Yield: 8-12 servings.*

*Adapted from Katherine Yang. ♦*

# A TOXIC LEGACY

It took decades for the United States to acknowledge the effects of Agent Orange in Vietnam. Will it finally recognize the damage done in Laos?

By George Black

Photographs by Christopher Anderson



**Page 23: Choi, 19, was born with a severe spinal deformity and a heart defect. He was sent to Vientiane, Laos's capital, for examination, diagnosis and cardiac surgery.**

**Opposite: Khao, 10, has severe intellectual disabilities and suspected arthrogryposis multiplex congenita, a condition that causes joints to permanently contract.**

It was a blazing-hot morning in October 2019 on the old Ho Chi Minh Trail, an intricate web of truck roads and secret paths that wove its way across the densely forested and mountainous border between Vietnam and Laos. Susan Hammond, Jacquelyn Chagnon and Nipha-phone Sengthong forded a rocky stream along the trail and came to a village of about 400 people called Labeng-Khok, once the site of a logistics base inside Laos used by the North Vietnamese Army to infiltrate troops into the South. In one of the bamboo-and-thatch stilt houses, the ladder to the living quarters was made from metal tubes that formerly held American cluster bombs. The family had a 4-year-old boy named Suk, who had difficulty sitting, standing and walking — one of three children in the extended family with birth defects. A cousin was born mute and did not learn to walk until he was 7. A third child, a girl, died at the age of 2. “That one could not sit up,” their great-uncle said. “The whole body was soft, as if there were no bones.” The women added Suk to the list of people with disabilities they have compiled on their intermittent treks through Laos’s sparsely populated border districts.

Hammond, Chagnon and Sengthong make up the core of the staff of a nongovernmental organization called the War Legacies Project. Hammond, a self-described Army brat whose father was a senior military officer in the war in Vietnam, founded the group in 2008. Chagnon, who is almost a generation older, was one of the first foreigners allowed to work in Laos after the conflict, representing a Quaker organization, the American Friends Service Committee. Sengthong, a retired schoolteacher who is Chagnon’s neighbor in the country’s capital, Vientiane, is responsible for the record-keeping and local coordination.

The main focus of the War Legacies Project is to document the

long-term effects of the defoliant known as Agent Orange and provide humanitarian aid to its victims. Named for the colored stripe painted on its barrels, Agent Orange — best known for its widespread use by the U.S. military to clear vegetation during the Vietnam War — is notorious for being laced with a chemical contaminant called 2,3,7,8-Tetrachlorodibenzo-P-dioxin, or TCDD, regarded as one of the most toxic substances ever created.

The use of the herbicide in the neutral nation of Laos by the United States — secretly, illegally and in large amounts — remains one of the last untold stories of the American war in Southeast Asia. Decades later, even in official military records, the spraying of Laos is mentioned only in passing. When the Air Force in 1982 finally released its partially redacted official history of the

defoliation campaign, Operation Ranch Hand, the three pages on Laos attracted almost no attention, other than a statement from Gen. William Westmoreland, a former commander of U.S. forces in Vietnam, that he knew nothing about it — although it was he who ordered it in the first place. Laos remained a forgotten footnote to a lost war. To those who followed the conflict’s aftermath intimately, this was hardly surprising. Only in the last two decades has the United States finally acknowledged and taken responsibility for the legacy of Agent Orange in Vietnam, committing hundreds of millions of dollars to aiding the victims and cleaning up the worst-contaminated hot spots there.

While records of spraying operations inside Laos exist, the extent to which the U.S. military broke international agreements has never been

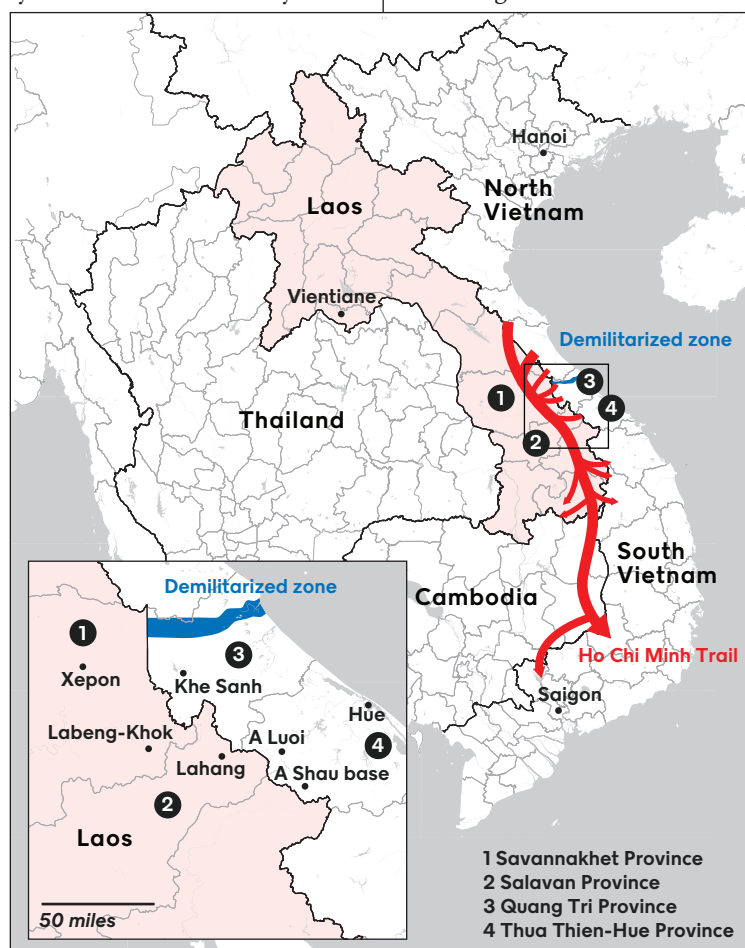
fully documented, until now. An in-depth, monthslong review of old Air Force records, including details of hundreds of spraying flights, as well as interviews with many residents of villages along the Ho Chi Minh Trail, reveals that, at a conservative estimate, at least 600,000 gallons of herbicides rained down on the ostensibly neutral nation during the war.

For years, Hammond and Chagnon were aware of the spraying in Laos, but the remote areas affected were almost inaccessible. Finally, in 2017, with new paved roads connecting the main towns, and many smaller villages accessible in the dry season by rough tracks, they were able to embark on systematic visits to the villages of the Bru, the Ta Oey, the Pa Co and the Co Tu, four of the ethnic minorities whose homes straddle the Laos-Vietnam border. It was the first time anyone had tried to assess the present-day impact of the defoliant on these groups.

Of the 517 cases of disabilities and birth defects so far documented by the War Legacies Project in Laos, about three-fourths, like malformed limbs, are identifiable to the untrained eye as conditions of the sorts now linked to exposure to Agent Orange. “When we started the survey, I told American government officials we were doing it and said honestly that we didn’t know what we would find,” Hammond says. “In fact, I hoped we would find nothing. But as it turned out we’ve found a lot.”

Hammond’s requests for both the United States and Laos to acknowledge the long-term effects of the spraying have so far been met with bureaucratic rationalizations for inaction: Congress can do nothing without a clear signal from the Lao government; the Lao government has been hesitant to act without hard data; officials of the United States Agency for International

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**Yenly, 17, has arthrogryposis. Her mother wanted to kill her at birth and make an animal sacrifice, believing that her condition was caused by angry forest spirits.**

Development in Vientiane have been sympathetic, but other senior embassy officials have waved away the problem. “One said that if we were so interested in what the U.S. had done in Laos, why didn’t we look at what the Soviets and the North Vietnamese had done?” Hammond recalls. “It was like being in a time warp, like dealing with an official in Vietnam in the 1990s. So we’ve been on this endless treadmill.”

So far, these conversations with officials have been informal, but this month she plans to submit the group’s findings to both governments, documenting the extent of the spraying recorded in the Air Force records and the number of disabilities the War Legacies Project has found. That’s when the governments of the United States and Laos will no longer have any reason to avoid taking action that is long overdue.

**F**or Hammond and Chagnon, the personal connection to the war runs deep. Chagnon took time off from college in 1968 to work with Catholic Relief Services in Saigon, later living in a compound near the Tan Son Nhut air base. Even though public opinion had turned sharply against the war since the Tet offensive earlier that year, she wasn’t an antiwar activist. “I’d never been to a demonstration,” she says. “My parents were furious at me for going into a war zone.”

The first jolt to her innocence, she recalls, came when newspapers in Saigon published gruesome photographs of malformed babies and fetuses in Tay Ninh, a heavily sprayed province on the Cambodian border. By the late 1960s, Vietnamese doctors had strong indications that these congenital defects might be connected to the chemical defoliants. By the time Chagnon came home in 1970, the defoliation campaign was about to be shut down amid growing controversy over its possible health effects. But her anxiety increased. Many of the early spraying sorties had

taken off from Tan Son Nhut, and she worried about her own exposure and the long-term effects if she had children. Those fears seemed to be confirmed when her daughter, Miranda, was born in 1985 with multiple birth defects. There was no proof that dioxin was responsible, and Miranda’s ailments were treatable with surgery and medication, but that hardly quelled Chagnon’s concerns about Agent Orange.

By this time Chagnon and her husband, Roger Rumpf, a theologian and well-known peace activist, were living in Vientiane and visited remote areas where few outsiders ever ventured. They had heard strange and unsettling stories in Xepon, a small town near the Vietnamese border. Doctors reported a rash of mysterious birth defects. A veterinarian told of farm animals born with extra limbs. There were anecdotal accounts of airplanes trailing a fine white spray. But it was impossible to find out more. “In those days there were no roads into the mountains,” Chagnon says. “You had to walk, sometimes for days.”

Hammond was born in 1965 while her father was serving at Fort Drum in upstate New York — a dark coincidence, she says, “since it was one of the first places they tested Agent Orange.” From there her father’s Army career took the family to Okinawa. Based in Danang, he was responsible for the construction of military installations in I Corps, the northernmost tactical zone in South Vietnam.

Hammond first went to Vietnam in 1991, when talk of normalizing relations was in the air. She fell in love with the place, abandoned thoughts of pursuing a Ph.D., moved to Ho Chi Minh City in 1996 to learn the language and spent the next decade organizing educational exchange programs and conferences to discuss Vietnam’s postwar humanitarian needs. It was at one of these events that she met Chagnon.

Since it began, their project has channeled modest amounts of

material support to disabled people — things like a wheelchair ramp or a vocational training course or a brood cow to increase household income — in rural areas of Vietnam that were heavily sprayed. Then, in 2013, Chagnon’s husband died. “After Roger passed away, we started talking about the idea of doing a survey in Laos,” Hammond says. “I think Jacqui saw it as an opportunity to honor his memory.” After protracted negotiations with Lao authorities, the War Legacies Project signed a three-year memorandum of understanding, promising a full report by March 2021.

**M**ore than half the cases identified by the War Legacies Project are children age 16 and under. They are the grandchildren of those who were exposed during the war, and possibly even the great-grandchildren, since the people in these villages have traditionally married in their teens. Club feet are commonplace. So are cleft lips, sometimes accompanied by cleft palate. There are disturbing clusters: five babies born with missing eyes in Nong District; a family with five deaf-mute siblings; an inordinate number of short legs, malformed legs and hip dysplasia in Samuoi District — the latter a condition that is easily treatable in infancy, but if neglected will lead to severe pain, a waddling gait and more serious deformity. The rudimentary health care system in rural Laos means that few if any infants even get a diagnosis.

In each village the women visited, groups of elders assembled to share their stories, many in their 70s yet still with sharp memories. At first, they recounted, they had no idea who was spraying and bombing their villages, or why. But in time they learned the names of the airplanes: T-28, C-123, B-52. In most villages, dozens were killed by the bombings or died of starvation. The survivors lived for years in the forests or in caves. They dug

earthen shelters, big enough to hide a whole family, and covered them with branches. “We had no rice for nine years,” one old man said. Sugar cane and lemongrass survived the spraying. So did cassava, though it swelled to an outlandish size and became inedible — Agent Orange accelerated the growth of plant tissue, killing most foliage.

For the most part, the old men told their stories dispassionately. But one Pa Co elder in Lahang, a place rife with birth defects, was bitter. He was an imposing 75-year-old named Kalod, tall, straight-backed, silver-haired, wearing a dark green suit with an epauletted shirt that gave him a military bearing. Like most of his people, Kalod saw the border as an artificial construct. During the war, people went back and forth between Laos and Vietnam, he said, depending on which side was being bombed and sprayed at the time. He leaned forward, gesticulating angrily. “Vietnamese people affected by the chemical spraying get compensation,” he complained. “In Laos, we need support from America, like they receive in Vietnam.”

The 600,000 gallons of herbicides dropped in Laos is a fraction of the roughly 19 million that were sprayed on Vietnam, but the comparison is misleading. Between 1961 and 1971, some 18 percent of South Vietnam’s land area was targeted, about 12,000 square miles; in Laos the campaign, which began on the Ho Chi Minh Trail between Labeng-Khok and the Vietnamese border, was compressed in time and space. It was focused on narrow, defined strips of the trail, 500 meters wide (about 1,640 feet), and on nearby crop fields, and the heaviest spraying was concentrated in a four-month period early in the war. It was as intense a ramping-up of the defoliation campaign as in any major war zone in Vietnam at the time.

To make matters worse, the newly examined Air Force records show that the first intensive period of spraying in Laos used not Agent

**Jacquelyn Chagnon, left, and Susan Hammond measuring the head of a 2-year-old boy named Sodsai, who gets severe headaches and has hearing difficulties. They strongly suspect that he has hydrocephalus, associated with exposure to dioxin.**



Orange, but the much more toxic Agent Purple, the use of which was discontinued in Vietnam almost a year earlier. Tests showed that the average concentration of TCDD in Agent Purple, a different chemical formulation, was as much as three times higher than in Agent Orange.

Long before the first Marines came ashore in Vietnam in 1965, infiltrators from the North were trickling into the South from the still-rudimentary Ho Chi Minh Trail, and the loyalties of the tribal groups along the border were dubious. In response to the growing insurgency, U.S. Special Forces set up small camps near the border with Laos, notably at Khe Sanh, which later became a gigantic Marine combat base, and in the A Shau valley, later infamous for the battle of

Hamburger Hill and seen by U.S. strategists as the most important war zone in South Vietnam.

Operation Ranch Hand was in its infancy. By July 1962, only a handful of missions had been flown, defoliating the perimeters of highways, power lines, railroads and the waterways of the Mekong Delta. The commander of U.S. forces in Vietnam, Gen. Paul D. Harkins, now requested authority to hit six new targets. One of them was the A Shau valley, and it would be the first mission aimed at destroying crops that might feed the enemy. The Joint Chiefs of Staff refused: The location was too sensitive; the valley was right on the border, and the neutrality of Laos was just days from being guaranteed under an international agreement. Harkins pushed

back, arguing that the proximity of the unsecured border was precisely the point. Despite President John F. Kennedy's strong reservations about crop destruction, the mission went ahead.

The following January, a 25-year-old Army captain from the South Bronx arrived at the A Shau base. In February, "We burned down the thatched huts, starting the blaze with Ronson and Zippo cigarette lighters," he wrote later. "The destruction became more sophisticated. Helicopters delivered 55-gallon drums of a chemical herbicide to us, a forerunner of Agent Orange. . . . Within minutes after we sprayed, the plants began to turn brown and wither." The young officer was Colin Powell, future chairman of the Joint Chiefs of Staff and secretary of state. The chemical was Agent Purple. By the end of the defoliation campaign, at least half a million gallons of herbicides would be used in the A Shau valley, making it one of the most heavily sprayed places in Vietnam; thousands eventually became sick or died.

The flow of North Vietnamese troops down the trail only increased, and by late 1965 the C.I.A. was reporting that hundreds of miles of new roads had been built or upgraded to carry trucks. The Air Force was already bombing North Vietnam, so the obvious answer was to escalate the bombing on the Ho Chi Minh Trail in Laos. But in addition to Laos's neutrality, there was a second problem: Where exactly was the trail? It ran through some of the most remote and inhospitable terrain on Earth, concealed by dense rainforest, largely invisible to U-2 spy planes, infrared sensors on other aircraft, even low-flying helicopters. The solution was to strip away the forest cover to expose the bombing targets: the truck convoys and logistics centers like Labeng-Khok.

In essence, the initial spraying of Laos was a mapping exercise, formally integrated into a massive bombing campaign called Tiger

Hound. In early December 1965, the ungainly C-123 aircraft, the workhorses of the herbicide campaign, crossed the Lao border for the first time. Within a week, the first wave of B-52s hit the Ho Chi Minh Trail.

The details of these air operations in Laos remained largely unknown until 1997, when Chagnon and Rumpf were at a get-together at the U.S. Embassy residences in Vientiane. They were friendly with Ambassador Wendy Chamberlin, who was on her way to Washington, Chagnon recalls. Was there anything they needed? Yes, Rumpf said, you can get the Air Force bombing records for Laos. While you're at it, said Chagnon, never one to be shy, how about the records on Agent Orange?

By then, Chagnon and Hammond had gotten to know Thomas Boivin, a scientist with a Canadian company called Hatfield Consultants that was completing a landmark study of Agent Orange on the Vietnam side of the border, in the heavily sprayed A Shau valley (today known as the A Luoi valley, named after its main town). The records were in the form of computer punch cards and needed to be painstakingly converted into a database that showed every recorded flight, with its date and the geographical coordinates of where each spray run began and ended. Boivin later calculated that more than half a million gallons of chemicals had been sprayed on Laos, but other declassified Air Force documents show additional amounts not found in those initial records, and several village elders gave persuasive accounts of flights that didn't seem to conform to the official data. "I'm sure the records are incomplete," says Jeanne Mager Stellman, an emerita professor of health policy and management at the Mailman School of Public Health at Columbia University, who played a pivotal role in documenting the spraying in Vietnam and calculating the risks of dioxin exposure for American veterans. "And my understanding

is that the guys who were assigned to missions in Laos were sworn to secrecy.” Boivin adds that “the C.I.A. also undoubtedly used herbicides in Laos, but their records have never been declassified.”

In her push to have the U.S. government take responsibility for its actions in Laos, Hammond has been well aware that it took many years for the plight of America’s own veterans and their offspring to be acknowledged, and much longer still before the same compassion was extended to the Vietnamese victims of dioxin. The Agent Orange Act of 1991 was passed only after a bitter 14-year fight by veterans campaigning for recognition that the chronic illnesses that tens of thousands of them were developing might be directly connected to dioxin exposure. Once the legislation passed, it was determined that if you set foot in Vietnam between 1962 and 1975 and suffered from one of the conditions on the growing V.A. list, you were eligible for compensation. This resolution was a matter of political pragmatism rather than hard science. Although there was growing evidence of the toxicity of the herbicides, studies of their health impacts were inconclusive and fiercely contested. But the veterans formed an angry and influential constituency, and politicians had to assuage a good measure of guilt, both their own and that of the general public, over the trauma of those who had fought in a lost war that most Americans preferred to forget.

Accepting responsibility for the horrors visited on the Vietnamese took much longer. Even after diplomatic relations were restored in 1995, Agent Orange was a political third rail. Vietnamese complaints about the effects of the herbicides on human health — raising issues of reparations, corporate liability and possible war crimes — were dismissed as propaganda. American diplomats were forbidden even to utter the words. It was

not until around 2000 that the United States was finally forced to acknowledge its obligations, after Hatfield Consultants completed its study of the impact of dioxin and showed U.S. officials incontrovertible evidence of how TCDD moved up the food chain, entered the human body and was transmitted to infants through breast milk.

Reconciliation between the United States and Vietnam was an intricate dance that depended on reciprocal steps to untangle the three most contentious legacies of the war. Once Washington had secured full cooperation in accounting for Americans missing in action, it began to aid Vietnam’s efforts to remove the vast amount of unexploded ordnance that still littered its fields and forests, killing and maiming tens of thousands. These steps, plus Hatfield’s breakthrough study, set the stage finally for the two countries to deal with Agent Orange, the most intractable problem of all.

The United States’ relationship with Laos has followed a similar sequence. Since the late 1980s, joint American-Lao teams have conducted hundreds of missions searching for the remains of aircrew who went missing on bombing missions, and over the last quarter-century Washington has committed more than \$230 million to ordnance removal and related programs. The missing step has been Agent Orange, but lacking any data on its human impact, the Lao government has had little incentive to raise such a historically fraught issue. Few government soldiers fought in the sprayed areas, which were controlled by the North Vietnamese, so there were no veterans clamoring for recognition of their postwar sufferings. “In Vietnam, the magnitude of the problem made it impossible to ignore,” Hammond says. “But in Laos it was on a smaller scale, and in remote places outside of the political mainstream.”

**Bounta, 26, is paralyzed and has malformed ankles and wrists that may indicate arthrogryposis. There is now electricity in his village, and he spends all day confined to his home watching television.**



All these years later, the mountainous border strip in the southern Lao panhandle is still a landscape defined by war and disease. Unexploded bombs are everywhere. The road that follows the Ho Chi Minh Trail south is a kind of living archive of the conflict, in which its remnants and relics have been absorbed into the fabric of everyday life. Men fish in boats made from the jettisoned fuel tanks of American fighter-bombers. Bomb craters from B-52 strikes are everywhere. Some are now fish ponds in the middle of the rice paddies.

Cluster-bomb casings have morphed into vegetable planters or substitute for wooden stilts to support the thatched huts that store rice, frustrating the claws of hungry rats. Everywhere the village soundtrack

is the dull clang of cowbells made from sawed-off projectiles. “These are our gifts from the villagers of America,” one old man told me.

Once or twice the War Legacies team had to turn back, defeated by roads that were impassable after recent monsoon floods. Halfway to the village of Lapid, the four-wheel-drive vehicle ground to a halt in the hardened mud. Chagnon climbed out and paced up and down the steep slope, inspecting ruts that were deep enough to swallow a person whole. There was no way through. It was frustrating, because Lapid had been hit hard. An Operation Ranch Hand plane with its full load of chemicals had been shot down in the nearby hills, and after the war villagers called the area the “Leper Forest” for the

**Bouam, 13, was born with one of two rare birth defects, either Maffucci syndrome or Ollier disease, that put him at risk of developing bone cancer. His ailments make it difficult for him to walk.**

high incidence of cancers and birth defects. On an earlier visit to Lapid, the War Legacies Project found a paralyzed baby girl, a 4-year-old with a club foot, a teenager born without eyes.

The survey has been a slow and laborious process. Since 2017, the women have visited scores of villages in heavily sprayed districts in two of the four border provinces that were targeted: Savannakhet and Salavan. In each village, they note the age and gender of each person affected, a description of their condition — with a firm diagnosis where possible — and a comment on any who might benefit from referral to a hospital in the provincial capital or in Vientiane. They exclude disabilities that are clearly unrelated to dioxin exposure, like the large number of limbs lost to cluster-munition bomblets. Their October 2019 trip was designed mainly to check up on cases they had already recorded, but they also found several new ones, like the boy in Labeng-Khok.

Hammond recognizes the limitations of their work. Some of their findings need to be verified by medical experts. “We’re not doctors or geneticists,” she says. Yet she, Chagnon and Sengthong are the first to try in Laos what has long been routine in Vietnam, where dioxin-related disabilities are logged systematically through commune-level surveys and household questionnaires and where victims receive small government stipends, and in some cases humanitarian aid from the United States.

It was Hatfield Consultants who unlocked the door to that aid, first through its four-year investigation of the A Luoi valley and then through subsequent studies of the former Danang air base. There had never been any secret about the huge volume of defoliants used in Vietnam, and the evidence of congenital disabilities in the sprayed areas was inescapable. Hatfield joined up the dots, showing how the two were connected and how dioxin could be

transmitted from one generation to the next. But that was not Hatfield’s only insight. According to what it called the “hot spot” theory, the ongoing risk of present-day exposure was greatest around former military installations like the Special Forces base at A Shau, where the chemicals had been stored or spilled. Boivin wondered whether there might be similar dioxin hot spots on the Lao side of the border.

In 2002, Laos signed the Stockholm Convention on Persistent Organic Pollutants, a class of 12 “forever chemicals” including the dioxin family. All signatories were obligated to report on the extent of contamination in their countries. Boivin got a small grant from a U.N. agency to investigate dioxin in Laos, as the nation had little scientific expertise of its own. He found very little, but pursuing his hunch about Agent Orange, he made an arduous trip into the remote border areas, where it was strongly suspected that the C.I.A. had built secret airstrips, the kind of facilities that might have been used by herbicide planes and that would have been routinely sprayed to keep down vegetation, as they were in Vietnam.

Near a village called Dak Triem, he noticed a strikingly flat piece of land. Yes, the village elders said, it had once been an airstrip. Scavenging for scrap metal after the war, they found some barrels painted with orange stripes. Boivin had time to do no more than some perfunctory sampling, but he found elevated concentrations of TCDD, enough to classify the site as a possible hot spot and recommend further investigation. He and Hammond had known each other for years, and in 2014, with funding from Green Cross Switzerland and the European Space Agency, they collaborated on a more detailed report, which included a chronological table of all the known herbicide flights in Laos and a list of hundreds of clandestine C.I.A. facilities that might pose an ongoing health risk.

Boivin submitted his reports to the Lao government, but they gained little traction. This lack of interest might seem startling, but to veteran Laos watchers it comes as no surprise. “Things move slowly and cautiously there,” says Angela Dickey, a retired foreign-service officer who served as deputy chief of mission in Vientiane. “For an overworked midlevel official, there’s no real incentive to act on something like this. Only people at the very highest level can consider or speak about controversial issues.”

But there was a deeper reason for the lack of action on Boivin’s findings. He had made a preliminary estimate of the volume of defoliants used in Laos and found one contaminated air base. But he had never set out to collect data on the human impact. That was the missing piece of the puzzle that had been assembled in Vietnam, and that the War Legacies Project, using further Green Cross funding, set out to find.

When the United States finally agreed to clean up the Danang and Bien Hoa air bases in Vietnam, the two main hubs of Operation Ranch Hand, and aid the victims of Agent Orange in that country, it was an integral part of building trust between former enemies who increasingly see themselves as strategic allies and military partners. (Today, Bien Hoa is an important Vietnamese Air Force base.) In one of the larger oddities of history, the most painful legacy of the war has become a cornerstone of reconciliation.

In 2019, U.S.A.I.D. made a new five-year commitment to provide another \$65 million in humanitarian aid to Vietnamese people with disabilities “in areas sprayed with Agent Orange and otherwise contaminated by dioxin.” The funds are channeled through the Leahy War Victims Fund, named for its creator, Senator Patrick Leahy, a Democrat from Hammond’s home state, Vermont, who for years has led

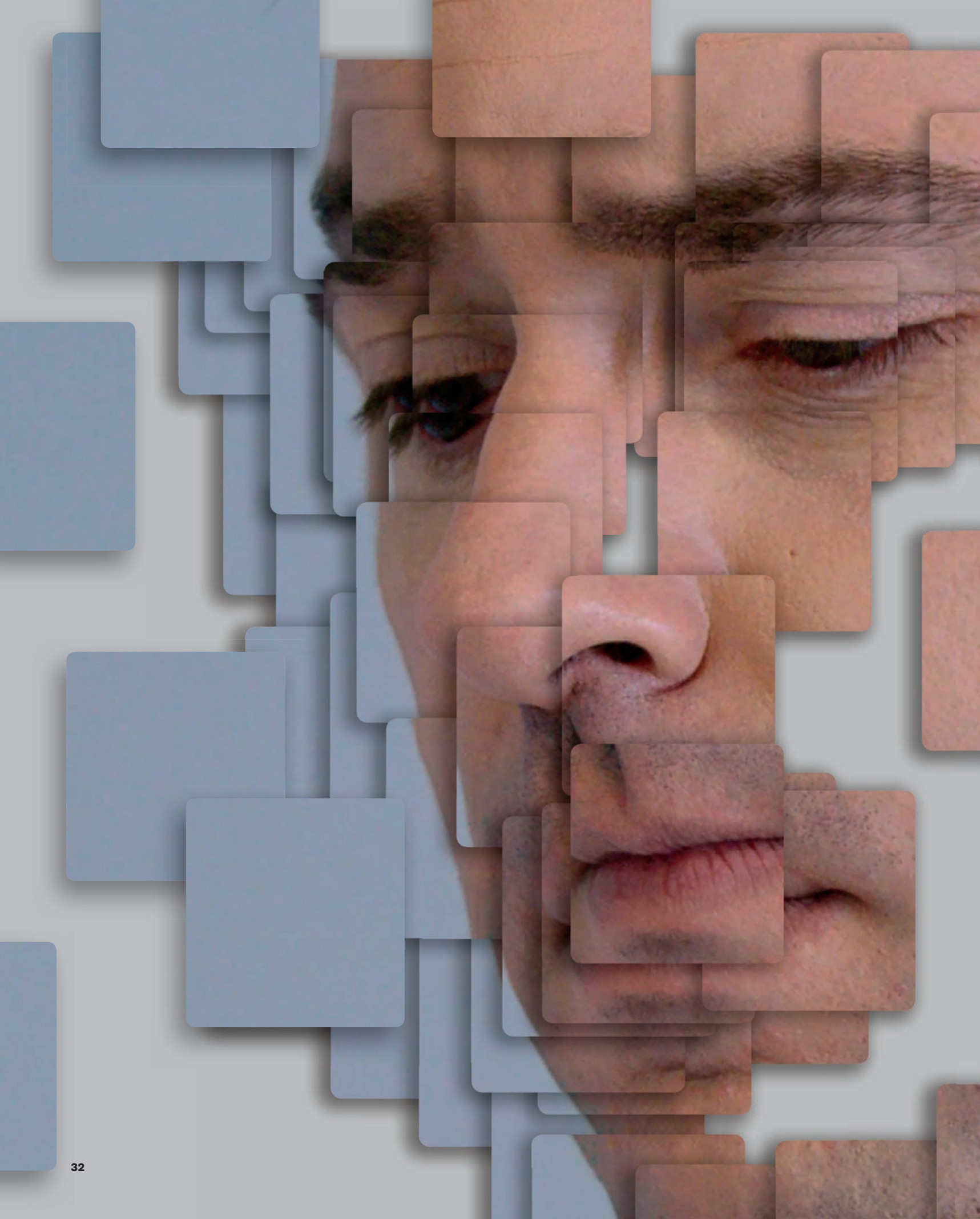
the effort to help victims of Agent Orange in Vietnam. So why would the same logic not apply in Laos? “We weren’t aware of significant spraying in Laos,” Leahy said by email. “Nor of people with disabilities in those areas that are consistent with exposure to dioxin. But if that is what the data shows, then we need to look at it and discuss with the government of Laos what could be done to help those families.”

Hammond has met several times with Leahy’s longtime aide Tim Rieser, who seems eager to see what the War Legacies Project has found when it presents its report to his boss this month. “We have our work cut out for us in Vietnam,” he says, “but we’d also want to know what was done in Laos, since clearly those who were involved” — meaning wartime political and military leaders — “have not made a point of making it widely known. I’ve always approached this as doing what’s necessary to solve the problem, and if there’s more to the problem than we knew, then we need to deal with it.”

Hammond is painfully aware that bureaucratic wheels turn slowly; that Leahy, after 46 years in the Senate, may not be there much longer; and that Vietnam will always be the front-burner issue. In principle, the smaller scale of what’s needed should make it easier to address. “Even \$3 million, which is what the U.S. started off with in Vietnam, would go a long way in Laos,” Hammond says. Meanwhile, the affected people are running out of time. Nine children under the age of 9 on the War Legacies Project list have already died.

U.S.A.I.D. already has an active disabilities program in Laos, which includes help for people injured by unexploded bombs. “All we need to do,” Hammond says, “is add the language we use now for Vietnam, earmark some money for ‘areas sprayed by Agent Orange and otherwise contaminated by dioxin.’ That one little sentence. That’s all it takes.” ♦









**Your Face  
Is Not Your Own**

When a secretive start-up scraped the internet to build a facial-recognition tool, it tested a legal and ethical limit — and blew the future of privacy in America wide open.  
By Kashmir Hill

Photo illustration by  
Zach Lieberman

Photographs by  
Malike Sidibe and  
Owen Dubeck

**In May 2019, an agent at the Department of Homeland Security received a trove of unsettling images.**

Found by Yahoo in a Syrian user's account, the photos seemed to document the sexual abuse of a young girl. One showed a man with his head reclined on a pillow, gazing directly at the camera. The man appeared to be white, with brown hair and a goatee, but it was hard to really make him out; the photo was grainy, the angle a bit oblique. The agent sent the man's face to child-crime investigators around the country in the hope that someone might recognize him.

When an investigator in New York saw the request, she ran the face through an unusual new facial-recognition app she had just started using, called Clearview AI. The team behind it had scraped the public web — social media, employment sites, YouTube, Venmo — to create a database with three billion images of people, along with links to the webpages from which the photos had come. This dwarfed the databases of other such products for law enforcement, which drew only on official photography like mug shots, driver's licenses and passport pictures; with Clearview, it was effortless to go from a face to a Facebook account.

The app turned up an odd hit: an Instagram photo of a heavily muscled Asian man and a female fitness model, posing on a red carpet at a body-building expo in Las Vegas. The suspect was neither Asian nor a woman. But upon closer inspection, you could see a white man in the background, at the edge of the photo's frame, standing behind the counter of a booth for a workout-supplements company. *That* was the match. On Instagram, his face would appear about half as big as your fingernail. The federal agent was astounded.

The agent contacted the supplements company and obtained the booth worker's name: Andres Rafael Viola, who turned out to be an Argentine

citizen living in Las Vegas. Another investigator found Viola's Facebook account. His profile was public; browsing it, the investigator found photos of a room that matched one from the images, as well as pictures of the victim, a 7-year-old. Law-enforcement officers arrested Viola in June 2019. He later pleaded guilty to sexually assaulting a child and producing images of the abuse and was sentenced to 35 years in prison. (Viola's lawyer did not respond to multiple requests for comment.)

At the time, the use of Clearview in Viola's case was not made public; I learned about it recently, through court documents, interviews with law-enforcement officials and a promotional PowerPoint presentation that Clearview made. The case represented the technology's first use on a child-exploitation case by Homeland Security Investigations, or H.S.I., which is the investigative arm of Immigrations and Customs Enforcement. (Such crimes fall under the agency because, pre-internet, so much abuse material was being sent by mail internationally.) "It was an interesting first foray into our Clearview experience," said Erin Burke, chief of H.S.I.'s Child Exploitation Investigations Unit. "There was no way we would have found that guy."

**Few outside law** enforcement knew of Clearview's existence back then. That was by design: The government often avoids tipping off would-be criminals to cutting-edge investigative techniques, and Clearview's founders worried about the reaction to their product. Helping to catch sex abusers was clearly a worthy cause, but the company's method of doing so — hoovering up the personal photos of millions of Americans — was unprecedented and shocking. Indeed, when the public found out about Clearview last year, in a New York Times article I wrote, an immense backlash ensued.

Facebook, LinkedIn, Venmo and Google sent cease-and-desist letters to the company, accusing it of violating their terms of service and demanding, to no avail, that it stop using their photos. BuzzFeed published a leaked list of Clearview users, which included not just law enforcement but major private organizations including Bank of America and the N.B.A. (Each says it only tested the technology and was never a client.) I discovered that the company had made the app available to investors, potential investors and business partners, including a billionaire who used it to identify his daughter's date when the couple unexpectedly walked into a restaurant where he was dining.

Computers once performed facial recognition rather imprecisely, by identifying people's facial features and measuring the distances among them — a crude method that did not reliably result in matches. But recently, the technology has improved significantly, because of advances in artificial intelligence. A.I. software can analyze countless photos of people's faces and learn to make impressive predictions about which images are of the same person; the more faces it inspects, the better it gets. Clearview is deploying this approach using billions of photos from the public internet. By testing legal and ethical limits around the collection and use of those images, it has become the front-runner in the field.

After Clearview's activities came to light, Senator Ed Markey of Massachusetts wrote to the company asking that it reveal its law-enforcement customers and give Americans a way to delete themselves from Clearview's database. Officials in Canada, Britain, Australia and the European Union investigated the company. There were bans on police use of facial recognition in parts of the United States, including Boston and Minneapolis, and state legislatures imposed restrictions on it, with Washington and Massachusetts declaring that a judge must sign off before the police run a search.

In Illinois and Texas, companies already had to obtain consent from residents to use their "faceprint," the unique pattern of their face, and after the Clearview revelations, Senators Bernie Sanders and Jeff Merkley proposed a version of Illinois's law for the whole country. California

has a privacy law giving citizens control over how their data is used, and some of the state's residents invoked that provision to get Clearview to stop using their photos. (In March, California activists filed a lawsuit in state court.) Perhaps most significant, 10 class-action complaints were filed against Clearview around the United States for invasion of privacy, along with lawsuits from the A.C.L.U. and Vermont's attorney general. "This is a company that got way out over its skis in an attempt to be the first with this business model," Nathan Freed Wessler, one of the A.C.L.U. lawyers who filed the organization's lawsuit, in Illinois state court, told me.

It seemed entirely possible that Clearview AI would be sued, legislated or shamed out of existence. But that didn't happen. With no federal law prohibiting or even regulating the use of facial recognition, Clearview did not, for the most part, change its practices. Nor did it implode. While it shut down private companies' accounts, it continued to acquire government customers. Clearview's most effective sales tool, at first, was a free trial it offered to anyone with a law-enforcement-affiliated email address, along with a low, low price: You could access Clearview AI for as little as \$2,000 per year. Most comparable vendors — whose products are not even as extensive — charged six figures. The company later hired a seasoned sales director who raised the price. "Our growth rate is crazy," Hoan Ton-That, Clearview's chief executive, said.

Clearview has now raised \$17 million and, according to PitchBook, is valued at nearly \$109 million. As of January 2020, it had been used by at least 600 law-enforcement agencies; the company says it is now up to 3,100. The Army and the Air Force are customers. ICE signed a \$224,000 deal in August; Erin Burke, of the Child Exploitation Investigations Unit, said she now supervises the deployment of Clearview AI for a variety of criminal investigations at H.S.I., not just child-exploitation cases. "It has revolutionized how we are able to identify and rescue children," Burke told me. "It's only going to get better, the more images that Clearview is able to scrape."

The legal threats to Clearview have begun to move through the courts, and Clearview is preparing a powerful response, invoking the First Amendment. Many civil-liberties advocates fear the company will prevail, and they are aghast at the potential consequences. One major concern is that facial-recognition technology might be too flawed for law enforcement to rely on. A federal agency called the National Institute of Standards and Technology (NIST) periodically tests the accuracy of facial-recognition algorithms voluntarily submitted by vendors; Clearview hasn't participated. In 2019, the agency found that many algorithms were less accurate in identifying

people of color, meaning their use could worsen systemic bias in the criminal-justice system. In the last year, three cases have been unearthed (none involving Clearview) in which police officers arrested and briefly jailed the wrong person based on a bad facial-recognition match. All three of the wrongfully arrested were Black men.

There's also a broader reason that critics fear a court decision favoring Clearview: It could let companies track us as pervasively in the real world as they already do online.

**A majority of us**, members of some religious groups excepted and pandemic notwithstanding, go around showing our faces all the time. We post selfies on the internet. Walking down the street, we are unwittingly photographed by surveillance cameras and — as happened to Andres Rafael Viola — by strangers we inadvertently photo-bomb. Until recently, we've had little reason to think deeply about the fact that each of our faces is as unique as a fingerprint or a Social Security number.

Behind the scenes, though, a quiet revolution has been afoot to unlock the secrets of our faceprints. It has been powered by an enormous influx of A.I. expertise into Silicon Valley in recent decades, much of it drawn out of the computer-science departments of elite universities. These experts have been put to work on a number of long-term projects, including language translation and self-driving cars, and one particularly intense area of research has been facial recognition. By 2010, this effort was far enough along for Facebook to introduce a feature called "tag suggestions" that suggested the names of friends who appeared in photos uploaded to its platform. Similar features began proliferating in consumer technology: You could unlock your smartphone by looking at it and then sort all the photos on the device by face. Google's Nest camera could tell you which neighbor was at the door.

As technology advanced, policymakers didn't keep up. In the absence of robust regulations, the only thing that kept companies like Facebook and Google from going beyond those basic features we'd grown accustomed to was their own restraint. Deploying facial recognition to identify strangers had generally been seen as taboo, a dangerous technological superpower that the world wasn't ready for. It could help a creep ID you at a bar or let a stranger eavesdrop on a sensitive conversation and know the identities of those talking. It could galvanize countless name-and-shame campaigns, allow the police to identify protesters and generally eliminate the comfort that comes from being anonymous as you move through the world.

Companies like Facebook and Google forbid "scraping," or the automated copying of data from their sites, in their terms of service. Still, by encouraging billions of people to post photos of themselves online alongside their names, tech companies provided the ingredients for such a product to succeed, were anyone audacious enough to violate the platforms' boilerplate legalese. In artificial intelligence, the more data you have, the better your product usually is. It was precisely because of Clearview's brazen collection of images from popular platforms that it was able to become its industry's leader.

The main federal law discouraging Clearview from doing that is the Computer Fraud and Abuse Act, passed by Congress in 1986, which forbids "unauthorized access" to a computer. The law was intended to prevent hacking, but some prosecutors have interpreted it as forbidding the

**It could galvanize countless name-and-shame campaigns, allow the police to identify protesters and generally eliminate the comfort that comes from being anonymous.**

violation of a site's terms of service, including by scraping. Clearview's executives, like many entrepreneurs who have come before them, built a company around the gamble that the rules would successfully be bent in their favor.

Their bet was partly validated in the fall of 2019, when a federal judge in the Ninth Circuit ruled in a high-profile case — which LinkedIn had filed against a start-up that was scraping its users' profiles — that automated online copying of publicly available information does not violate the anti-hacking law. The Electronic Frontier Foundation, a civil-liberties group, called the ruling “a major win for research and innovation,” because it meant journalists, academics and researchers could automatically collect information from websites without fear. But it was also an excellent precedent for Clearview and its growing database of publicly available photos. (The E.F.F. has since called for federal protections to prevent biometric identification like what Clearview sells.)

The biggest remaining legal hurdle for the company, absent some sudden congressional action, is Illinois's Biometric Information Privacy Act (BIPA), a state law from 2008 that offers the strongest protection in the country for people's faces. The law says that private entities must receive individuals' consent to use their biometrics — a fancy word for measurements taken of the human body — or incur fines of up to \$5,000 per use. In 2015, five years after introducing its facial-recognition-based photo tagging, Facebook was hit with a class-action lawsuit in Illinois for violating the law. It settled the suit last year for \$650 million.

Clearview is now fighting 11 lawsuits in the state, including the one filed by the A.C.L.U. in state court. In response to the challenges, Clearview quickly removed any photos it determined came from Illinois, based on geographical information embedded in the files it scraped — but if that seemed on the surface like a capitulation, it wasn't.

**When I started** reporting on Clearview AI in November 2019, the company avoided me. For more than a month, its employees and investors mostly ignored my emails and phone calls. Clearview's then-sparse website listed a company address just a few blocks away from the Times Building in Midtown Manhattan, so I walked over to knock on its door — only to discover there was no building with that address. (The company later told me it was a typo.) I had trouble even finding out who was behind Clearview. Once the company realized I was not going away, it hired Lisa Linden, a seasoned crisis-communications expert, to help deal with me.

In January 2020, Linden introduced me to Hoan Ton-That, Clearview's chief executive, and we met and talked over lattes at a WeWork in New York. Ton-That and I kept in touch. Last March, after I told Clearview I wanted to write about how the company was dealing with the challenges, legal and otherwise, coming its way, he agreed to have phone calls with me every few weeks, under the condition that I not write about them until the publication of this article. In September, Linden invited me to observe a meeting between Ton-That and one of the most accomplished lawyers in the country, Floyd Abrams.

Abrams is a lion of First Amendment law, renowned for defending The New York Times's right to publish the Pentagon Papers 50 years ago. Clearview had hired him, along with a national-security lawyer, Lee Wolosky of Jenner & Block, to defend itself in the Illinois lawsuits. Because of the pandemic, Abrams hadn't been spending much time at the offices of Cahill Gordon & Reindel, the corporate law firm where he is a senior counsel. So on a summery Friday morning, Ton-That met with him instead at Abrams's Fifth Avenue apartment in Manhattan, where visitors are greeted by photos of Abrams shaking hands with Barack Obama and posing with Bill Clinton and George W. Bush.

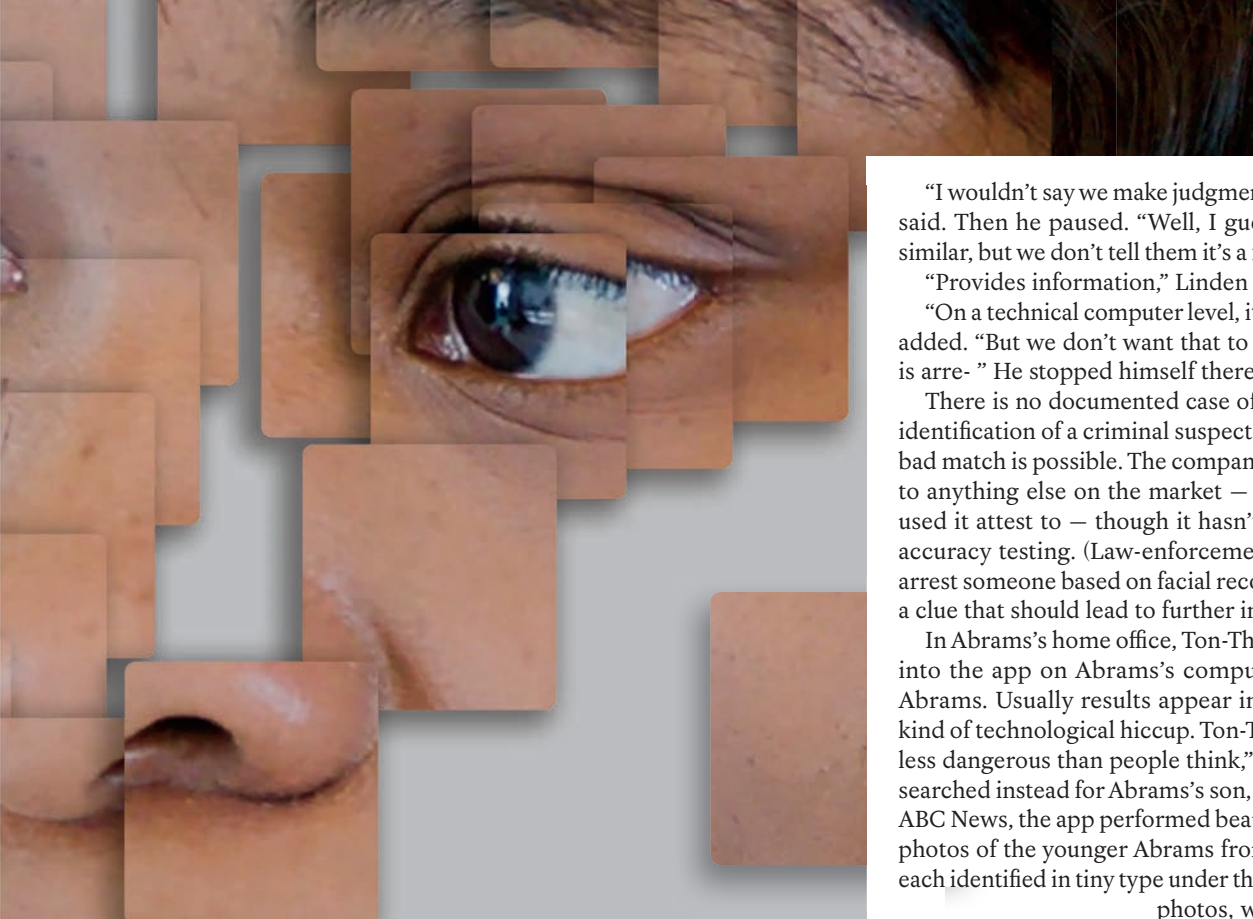
In his light-filled home office, Abrams — wearing gray slacks, a blue button-up shirt and a black mask — sat down in a low-slung lounge chair. Six



feet away, by the window, was Linden, in a black ensemble and floral-print mask. Ton-That walked in a minute late, dressed in a paisley jacket, a red bandanna functioning as his mask. At 32, Ton-That, who has an Australian mother and claims descent from Vietnamese royalty on his father's side, is tall, slender and elegant. With long black hair and androgynous good looks, he briefly considered a modeling career. He set his gray laptop bag on the floor and reclined in a chair that seemed too small for his lanky body. He came across as serene, without the anxiety you might expect from a person whose company was facing an existential crisis in the courts. He has a performer's ease from years of playing guitar.

Abrams immediately brought up the A.C.L.U. lawsuit in Illinois. The A.C.L.U. said Clearview had violated Illinois's prohibition on using people's faceprints without their consent. Abrams and Ton-That were working on a motion to dismiss the case, arguing that the prohibition violates the company's constitutional right to free speech.

While Floyd Abrams and the A.C.L.U. might not seem like natural enemies — the A.C.L.U. itself being known for defending the First Amendment — Abrams is embracing free speech more radically than the A.C.L.U. is comfortable with, given its concern with civil liberties other than freedom of speech, including individuals' right to privacy. In Abrams's view, Clearview is simply analyzing information in the public realm, an activity the government should not curtail. Abrams's position also reflects a career shift, from primarily defending the constitutional rights of journalists to supporting those of corporations. After the 2008 financial meltdown, he argued that AAA ratings by Standard & Poor's of debt that turned out to be junk were simply the company's opinion and therefore worthy of protection



“I wouldn’t say we make judgments but provide information,” Ton-That said. Then he paused. “Well, I guess we do make judgments in what’s similar, but we don’t tell them it’s a final judgment about who someone is.”

“Provides information,” Linden suggested.

“On a technical computer level, it’s the computer’s judgment,” Ton-That added. “But we don’t want that to be the final judgment when someone is arrested.” He stopped himself there.

There is no documented case of Clearview’s use resulting in the misidentification of a criminal suspect, but Ton-That was clearly aware that a bad match is possible. The company says that its algorithm is far superior to anything else on the market — a claim that police officers who have used it attest to — though it hasn’t submitted its algorithm to NIST for accuracy testing. (Law-enforcement officers told me they would never arrest someone based on facial recognition alone and that a match is only a clue that should lead to further investigation.)

In Abrams’s home office, Ton-That did a demo of Clearview. He signed into the app on Abrams’s computer, then searched using a photo of Abrams. Usually results appear instantly, but there was a delay, some kind of technological hiccup. Ton-That laughed nervously. “Maybe this is less dangerous than people think,” Abrams quipped. But when Ton-That searched instead for Abrams’s son, Dan Abrams, a legal correspondent at ABC News, the app performed beautifully: The screen filled with a grid of photos of the younger Abrams from around the web, with the source of each identified in tiny type under the photo. Ton-That clicked on one of the photos, where he was standing with a woman, then clicked on the woman, which brought up numerous photos of her as well.

Those who support Clearview in its legal wranglings are worried that a loss would stifle innovation. “The primary goal of free speech ought to be protecting the ability to generate knowledge through mechanical means or any means,” Jane Bambauer, a law professor at the University of Arizona who wrote an amicus brief in support of Clearview’s position, told me.

On the other side are those who believe that a ruling in favor of Clearview’s methods could usher in a future in which facial recognition is

commonplace. Jameel Jaffer, a former A.C.L.U. lawyer who is now the director of the Knight First Amendment Institute at Columbia University, points out that most people who put their photos online over the last two decades very likely didn’t realize their faceprint could be derived from them. He offered the example of going to a hairdresser who also collects your trimmings and sequences the DNA. “If you don’t think that activity is protected by the First Amendment, you have to ask what about Clearview’s activity is different,” Jaffer said.

The cases against Clearview are still in early stages and will probably take years to play out. The company can continue to operate while they do. If it loses this first battle, Abrams plans to appeal, and to keep appealing as many times as needed. He predicts at least one of the cases will eventually make it to the Supreme Court, a place he has argued 13 times in the past.

In recent cases, the Supreme Court has limited the government’s use of new technologies to track people en masse, ruling that the police need a warrant, for example, to collect data about people’s movement from cellphone companies. But the rights of private entities — whether individuals or companies — have been treated differently. In 2011, the Supreme Court heard a case involving a Vermont law that prohibited the sale of information about the drugs doctors were prescribing. Some companies sued, saying the law was unconstitutional because they had

## ‘The primary goal of free speech ought to be protecting the ability to generate knowledge through mechanical means or any means.’

like any citizen’s. He represented Mitch McConnell in the 2010 Citizens United case, in which the Supreme Court found that limiting corporations’ political spending violated their free speech.

The A.C.L.U. doesn’t object to Clearview’s scraping of photos, but it says that creating a faceprint from them is “conduct” and not speech — and thus isn’t constitutionally protected. Abrams disagrees with that and plans, he said, to argue that analyzing publicly available information (online photos, in this case) and sharing the findings (photos of one particular person) is protected by the First Amendment. Arguing that search results are speech is not without precedent: In 2003, Google won a federal case on similar grounds, after an advertising company accused Google of intentionally lowering its ranking in search results. Clearview had also gathered images from across the web and made them searchable. Google lets you search by name; Clearview lets you search by face.

Abrams saw the Google case as a useful precedent. “We’re citing a case that says that a search engine’s First Amendment rights would be violated if it were compelled to speak in a manner that the plaintiff wanted,” he said to Ton-That. He wanted to write in the motion to dismiss that Clearview’s “app makes similar judgments about what information will be most useful to its users.”

Then Abrams, who is 84, hesitated: “Is that the way one describes what an app does?” he asked the chief executive. “Does one say the app makes judgments?”

a free-speech right to buy and sell that information. The Supreme Court ruled in favor of the companies.

Clearview and the A.C.L.U. will appear before a judge in April to discuss the motion to dismiss. The fact that Clearview's database is made up of public photos is the core of Abrams's defense. "We're saying that where information is already out, already public," Abrams said, "that the First Amendment provides enormous protection."

**During the year** I've been reporting on Clearview, one mysterious subject has been the exact details of the company's origins. According to Ton-That's version of events, he and a man named Richard J. Schwartz founded Clearview AI together. But the pair always struck me as an odd match. Ton-That moved to San Francisco from Canberra in 2007 at age 19 to chase the tech gold rush, spinning up moderately successful Facebook games and iPhone apps and attending Burning Man, but then eventually decamped for New York in 2016. Schwartz is a grizzled New York politico who worked for Mayor Rudolph W. Giuliani in the '90s, edited the New York Daily News editorial page and did communications consulting. He is 30 years older than Ton-That and seems to come from an entirely different world. So, last year, I asked Ton-That how they met and came to found the company together.

Ton-That said he encountered Schwartz in 2016 at the Manhattan Institute, a conservative think tank, during a book event. He said they talked for an hour and decided to meet again for coffee the following week. That time, they chatted for three hours, including about technology and public policy. "And it went from there," he said. Schwartz later told me he was intrigued by the idea of joining Ton-That's "brilliant mind and exceptional technical skills with my experience, relationships and know-how." When the company was first registered in New York in February 2017, using Schwartz's apartment on the Upper West Side as its business address, it was called Smartcheckr LLC. The name changed to Clearview AI the following year. Ton-That was vague about what happened in those early years, declining to name others involved beyond Schwartz. In Ton-That's telling, the company just kind of stumbled into facial recognition.

That story never satisfied me. Clearview is a radical new entrant to the technological scene. It dared to contravene a taboo that Google and Facebook — not generally known for their privacy-respecting ways — saw as exceedingly unwise to cross. For the last year, I have tried to figure out the exact genesis of that iconoclastic development and learned that the company's origin story is more complex than Ton-That made it out to be.

After I broke the news about Clearview AI, BuzzFeed and The Huffington Post reported that Ton-That and his company had ties to the far right and to a notorious conservative provocateur named Charles Johnson. I heard the same about Johnson from multiple sources. So I emailed him. At first, he was hesitant to talk to me, insisting he would do so only off the record, because he was still frustrated about the last time he talked to a New York Times journalist, when the media columnist David Carr profiled him in 2014.

Back then, Johnson was a 26-year-old blogger who would try to poke holes in big stories that were popular with progressives. When a police officer killed 18-year-old Michael Brown in Ferguson, Mo., Johnson sued unsuccessfully to obtain Brown's juvenile records and published

photos from Brown's Instagram account that he claimed showed a violent streak. Later, Rolling Stone wrote about a University of Virginia student named Jackie who claimed that she was gang-raped at a fraternity, and Johnson called the story a hoax; after the magazine acknowledged discrepancies in Jackie's story, Johnson posted what he said was her last name, along with photos of her. Rolling Stone later retracted the story altogether. Carr criticized Johnson's attack-dog tactics and noted factual errors, calling Johnson a "troll on steroids," but pointed out that he had gotten some notable scoops and was "not without some talent."

Johnson found his tactics and political leanings suddenly becoming more mainstream during the Trump administration, and he began to accumulate real influence. Forbes reported that he helped the White House vet political appointees.

Johnson says he eventually decided to talk to me on the record because he regrets some of his decisions and the notoriety that has haunted him since. He wanted to correct what he feels are mistaken impressions of him by revealing that he helped start a company whose product is now being used to save children from sexual abuse.

Johnson claims that he met Ton-That in 2016, introduced him to Schwartz and considers himself a third co-founder of Clearview. I was skeptical at first, given Johnson's reputation as a peddler of disinformation. In a statement, Ton-That acknowledged that he met Johnson in 2016 and that Johnson had "introduced people to the company." But he said Johnson was not a founder and never had an operational role. Johnson, however, provided email and legal documents that, along with other sources, strongly support his claims; indeed, the company might not exist without his contributions.

According to Johnson's version of events, which Clearview disputes, it all began in May 2016, when Ton-That emailed Johnson, saying he was an



admirer of Johnson's work and asking to join a Slack group that he ran for fans of his right-wing takes. The next month, Johnson visited New York, and Ton-That met him for the first time in person. They hung out for at least 10 hours straight and became fast friends, according to Johnson and associates of Ton-That at the time. The people who knew Ton-That said he had always been contrarian, but it surprised them when he came out as a Trump supporter in early 2016. They worried about his new relationship with Johnson, given his extreme views and associations. Ton-That recently described himself as "confused" at that time in his life. He went on: "People get radicalized into things. It's crazy to see it. I got sucked in for a while."

That summer, the new friends attended the Republican National Convention in Cleveland, where Donald Trump was being crowned the party's presidential nominee. Johnson had rented a big group house on Airbnb. "Am I still allowed to crash?" Ton-That wrote in an email to Johnson, which Johnson provided to me. "I'll bring my guitar, can chip in for accommodations."

"Yes, of course," Johnson replied. "Want to meet Thiel?"

"Of course!" Ton-That wrote back.

"Thiel," of course, was Peter Thiel, one of the most powerful men in Silicon Valley — though he no longer lives there, having moved to Los Angeles. (A spokesman for Thiel did not respond to requests for comment.) He famously turned an early \$500,000 investment in Facebook into a billion dollars and became a founder of Palantir, a data-gathering juggernaut.

Thiel was in Cleveland because he had come out in support of Trump and was giving a prime-time speech at the convention. Johnson sent me a photo taken of him and Ton-That on the floor of the arena: Both men are smiling, with Thiel visible on a screen behind them.

While Johnson and Ton-That hung out at the rental house, they mused about discredited sciences that could be explored in the modern age with new technologies. At one point, the conversation turned to physiognomy, the pseudoscientific judgment of a person's character based on their facial features. "Hoan played music," Johnson said. "We all drank a lot." He added, "That was where a lot of ideas that became Smartcheckr, and then Clearview, began." Johnson told me he also arranged a meeting between Thiel and Ton-That at a home in Shaker Heights that week.

Johnson says he was the one who brought in Schwartz, because of Schwartz's deep political connections in New York — including at the N.Y.P.D. — and because he offered an inroad to Trump as a former Giuliani lieutenant. Two days after the convention ended, Johnson emailed Ton-That and Schwartz, introducing them. Within a week, they made plans to meet, according to an email thread that Johnson forwarded to me.

Seven months later, in February 2017, Schwartz emailed draft formation documents for a company called Smartcheckr LLC to Johnson, which granted equal ownership to Schwartz, Ton-That and Johnson. It was a name that would seem to have Johnson's fingerprints all over it — he previously founded start-ups called WeSearchr and FreeStartr — though the company claims the name was Schwartz's idea. "I am very excited about our new company and look forward to the great work you, Hoan and I will be doing together!" Schwartz wrote.

Ton-That says the LLC "was not intended for the purpose of developing facial-recognition technology, and it conducted no business." Johnson claims the plan from the beginning was to make an app to identify faces. In June 2017, Ton-That emailed Schwartz, Johnson and another person a link to a Scientific American article about Caltech researchers who had shed new light on how the brain identifies faces. Schwartz responded, "Sounds like Caltech is a year behind you."

In July 2017, a director at Thiel Capital, an investment firm founded by Thiel, emailed Ton-That to say that Thiel was interested in investing \$200,000. Ton-That forwarded the email to Johnson. Thiel soon did invest.

Johnson was living on the West Coast, dealing with a new child and a disintegrating marriage, and while he was introducing the company to potential funders and clients, he was not involved in day-to-day operations. In August 2017, Smartcheckr registered as a corporation in Delaware. This time, Schwartz and Ton-That were listed as the only directors.

That fall, perhaps trying to keep some money coming in while improving its facial-recognition technology, Smartcheckr pitched itself to political candidates as a consulting firm. A person close to the company in its early days said the founders wanted to dig up dirt on liberals, which the company and Johnson deny. Paul Nehlen, a far-right Republican running for Congress in Wisconsin, publicly claimed the company had sent him a brochure about "enriched" voter profiles, "micro-targeting" of voters and "extreme opposition

research." (Nehlen didn't respond to requests for comment.) When I asked the company about his claims last year, it told me it never actually offered such services and that the email came from a rogue contractor. But I found out that it was not a one-off — nor was the outreach limited to Republicans.

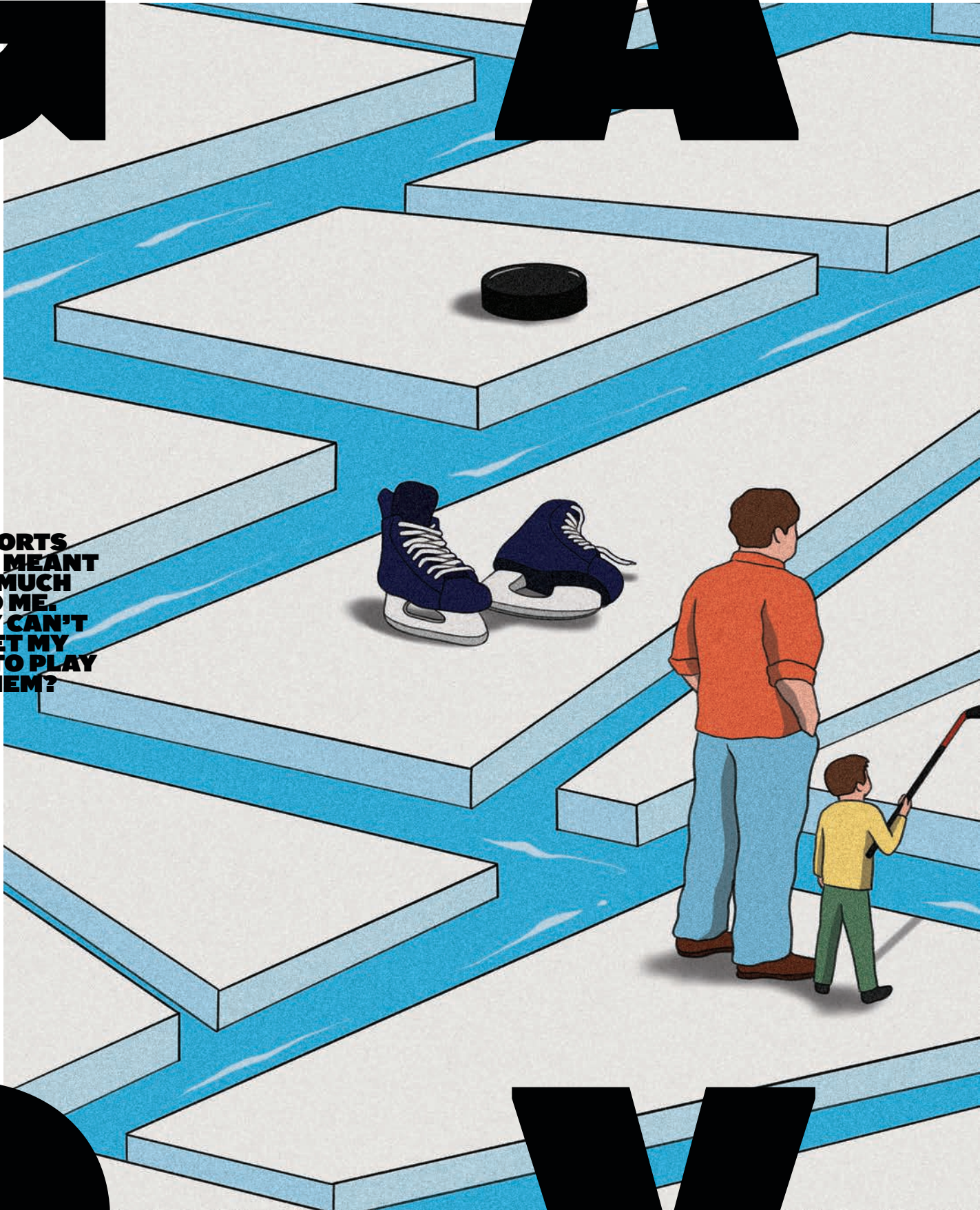
Schwartz offered the same Smartcheckr services, in October 2017, to a Democratic newcomer to politics named Holly Lynch, *(Continued on Page 47)*

## The company's origin story is more complex than its chief executive made it out to be.

# G

# A

**SPORTS  
HAVE MEANT  
SO MUCH  
TO ME.  
WHY CAN'T  
I GET MY  
SON TO PLAY  
THEM?**



# O

# V



**M**

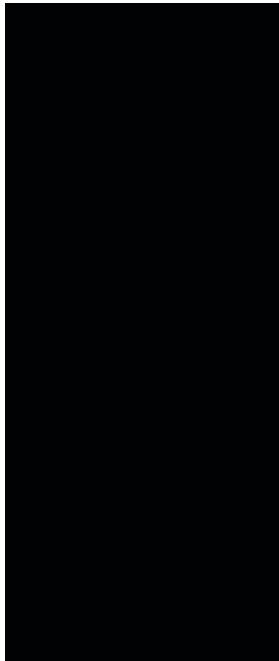
**E**



**BY KEITH  
GESSEN  
ILLUSTRATIONS  
BY  
CHOI  
HAERYUNG**

**E**

**R**



remember this: Raffi in the community garden. He is maybe 2 years old. I have brought along a soccer ball. He likes running back and forth in the garden, attacking people's vegetables. Why not kick the ball while he's at it? He is willing to do it. At first, he is always willing to do it. But he is not good at it. He misses the ball more often than he hits it. In order to keep him interested, I make a goal out of my legs. When, after numerous attempts, he finally scores, I pick him up and spin him around to celebrate. After that he doesn't want to kick the ball anymore; he just wants to get picked up and spun around.

We attend a party at a friend's house in New Jersey. There are a lot of kids. Raffi is maybe a year old, part walking, part crawling. There is another boy there about his age, skinnier, less beautiful, and yet the way he crawls, the way he picks up toys, I can immediately see that he has total control of his body. That is what it looks like, then. Raffi will continue to get tangled up with his feet until well past his 4th birthday.

But it is hockey that I most want him to learn, and that is a sport for which you don't have to be an expert walker. Bobby Orr was bowlegged. I buy Raffi skates off Craigslist the summer he turns 2 and take him skating at a rink in Queens a little while later. He clings to me the entire time we're on the ice and cries when I try to put him down. We skate around a few times and then go home. The next time we try, he spends a little more time with his skates touching the ice, but tears soon follow, and again we go home.

The first time he doesn't cry when skating is that winter at my father's house in Massachusetts. My father has a small

pond next to his house that freezes after a few nights of cold. We put our skates on inside and then walk down to the pond through the woods. Emily, Raffi's mother, shoots a video on her phone. Raffi is barely able to stand on his skates, but he is so surprised at this whole turn of events, us on a pond, in the woods, in the winter twilight, that he just takes it in. My dad's giant dog comes out onto the ice with us. I hold Raffi under the armpits and slowly skate him around. He doesn't mind.

I say he doesn't mind because as I write this it's hard to get Raffi, who is now 5, to do anything. He doesn't want to go outside, he doesn't want to learn how to use his in-line skates, he definitely doesn't want to go ice skating. He wants to play with his Transformers and watch "Wild Kratts" on TV. Noble pursuits, to be sure, but there is more to life. Did I do something wrong, I wonder, or was it always going to be this way?

**Emily and I** had a big fight once about sports. I can't remember what started it, but that's not the point — our fights are ambient, the product of a certain level of humidity. The humidity rises for a while, and then it rains.

In this fight it emerged that Emily did not see the point of sports. She thought they inculcated violence and were implicated in rape culture. She wanted Raffi to stay away from them. Nor did she think he had shown any aptitude for sports. In her opinion, he much preferred music and drawing.

I disagreed. There were things that only sports could give you, and it was too early to tell what he liked. Certainly he was never going to like sports if he was bad at them. He needed a base-line level of competence — knowing how to skate, how to kick a soccer ball, how to throw a baseball. After that he could decide what he wanted to do. As for rape culture, as for male violence, sports could help sublimate those things. That was practically the whole point of sports! And then I said something that I wish I had not said, but it was what I felt: "Boys play sports! That's what boys do!"

Having gotten me to say something stupid, Emily declared victory and left the room.

What had I actually meant to say? Perhaps I had meant to say: I, a boy, had played sports, and they had meant so much to me. I played them when I was little — hockey, soccer, baseball, tennis, as long as it was a sport, as long as I was running around. I played them as a teenager, now more seriously — football and hockey. I finally stopped playing sports halfway through college but then returned to them, specifically to hockey, in grad school, when I was miserable and at loose ends after the collapse of my first serious relationship; and it was hockey that I played when I moved to New York after grad school; and hockey again when I moved to Moscow to live with my grandmother, after the publication of my first book. Hockey was a refuge and a solace. I loved the feeling of stepping onto a freshly cut sheet of ice, settling into my skates, getting a puck on my stick and shifting it back and forth, back and forth, then flinging it against the boards. I loved walking out of a new locker room and finding out who could really play — I learned, over the years, that I could never accurately guess. And, not least of all by any means, I loved the fact that I was one of the people who could play: not beautifully, for sure, and less and less effectively as time went on, but still. I had played my whole life.

When I was a kid, sports were something my father and I had in common. My father has never been a big talker. Like so many of the Soviet Jewish men of his generation who came to

America in the '70s and '80s, he was trained in problem-solving and math. He is mostly silent, thoughtful, active. But he drove me to all my games, hundreds of games over the years, and on the way home he would sometimes make a comment. Once, in youth hockey, he suggested I shoot the puck more. And once when I was preparing for a tennis tournament, and my coach seemed worried that I wouldn't be able to handle losing, my father said, on the ride home, "He doesn't know that you've been both the best player on your teams and the worst." Meaning: "You know how to handle adversity." It was the highest compliment he ever paid to my character.

Most of the friends I have made in life I made through sports. Most of my most powerful memories have been sports memories. My first encounter with what I now recognize to be philosophy was through sports, in the figure of my high school football coach, a retired biology teacher named Aredis Kojoyian who played college football for George Washington University in the late '40s and early '50s. During practice, Coach Kojoyian would sing the praises of the forearm shiver, legally the most effective way for a player on offense to knock someone over. This was philosophy of a kind. But after games, when he was called upon to explain what happened (usually, that we lost), Kojoyian could be profound. "In any endeavor you undertake in life," he would begin, and then he would explain the value of hard work, dedication and solidarity. If you wanted to accomplish something, you had to work at it — and still you might fail. "The better team does not always win," Kojoyian said once, after we played our hearts out for him and lost to a more talented group of players. "The better man does not always win." But you must persevere, he said. You must get up to fight again.

For a while, under the influence of Kojoyian, I came to believe that sports, and football especially, had special character-building properties. Physical labor, teamwork, discipline — the martial virtues without the martial vices. Of course, my experience of actual sports teams indicated that this was nonsense. Some of my teammates were wonderful people; some were jerks. I have played sports with plenty of loudmouths and bullies. Barack Obama was a high school athlete, but so was Donald Trump.

Still there was something in sports that I had not found anywhere else. The summer that Raffi was born, I was trying to finish a draft of my second novel, worrying about money and trying to manage my literary career, such as it was. But I was also on two excellent beer-league hockey teams. Each team was headed for the playoffs. The email messages celebrating our victories flew back and forth. I wanted Raffi to have this too — this life outside his life, this group of friends dedicated to a common cause. In short, of all the things that I felt I could give my son, the one I most wanted to give him was sports.

**The first thing** you need to learn when learning how to skate is how to get up after you fall. The natural way to get up is to place your hand on the ground and lean on it for support. On the ice that doesn't work — your hand will slip and you will just fall again. Instead you need to get to your knees, lift one of them up, plant your skate directly under it and push off that knee with both hands. Now you're standing up and will be for a little longer, until you fall.

The next thing to learn is that you skate on your edges, shifting from the inside to the outside and back depending on what you need to do. You can begin to learn this by lifting up your skates and putting them back down again while standing

still. At the rink in Queens or on my father's pond and even a couple of times on the tiny koi pond in our community garden, which froze nicely when it was cold out, Raffi and I stood across from each other and raised our hands like lions and stomped back and forth from foot to foot, roaring at each other. That was our edge work. Once in a while he fell and, in textbook fashion, got up again.

But beyond that it got too complicated. Beyond that you had to start moving. Ideally you would angle your feet out a tiny bit and push off the inside edge, first from one skate, then the other. This is easier said than done. I would try to explain it, and Raffi would grow frustrated. I would try to show him, by doing it, but he didn't like that either. Inevitably he would end up in tears — from anger at his slow progress or because he'd fallen and hurt himself or maybe just because he was cold. Sometimes, especially at the rink in Queens, he would lie down on the ice and start eating snow. "That's disgusting," I would say, because people are always spitting and blowing their noses onto the ice, but that would only make him want to do it more. At that point I would feel that I had reached the end of my pedagogical potential when it came to Raffi and ice hockey.

How did others do it? My own father was an amateur boxer in Moscow and stayed in shape well into middle age, but he never pressured me to play sports or sent me to the yard to improve my game. He must have signed me up for all the teams and he drove me to all the games, but later, when I was in college and spending 30 hours a week on the football team lifting weights and practicing and watching film — all for a sport that I was too small and too slow and too untalented to play at the college level — my father was the one who persuaded me to stop. I told him that I was thinking about quitting, that I was finding it difficult to play football

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and keep up with my classes, but also that I had a notion, a hypertrophied version of Coach Kojoyian's old notion, about how the virtues of manly combat were central to one's education. My father rejected this. "You know," he said, "after the war, a lot of the men who came back, who had been very physically brave

in the fight against the Germans, proved to be total moral cowards in the face of political pressure" — from Stalinism. My father, who had punched out anti-Semites on the streets of Moscow, thought that moral courage, which could not be cultivated on a football field, was much more important than physical courage, which arguably could. A few weeks later, I went into the coach's office and quit.

**Of course, there** are other kinds of fathers and more talented sons.

In the world of hockey, by far the most famous father is Walter Gretzky, who died earlier this month at age 82. As a youth in Ontario, Walter was a promising hockey player, but he was too small and skinny to make the leap to the pros. After high school he went to work for Bell Canada, setting up phone lines. He married young. In 1961, when he was 22, he and his wife Phyllis had their first child, Wayne.

The story of Wayne Gretzky's youthful exploits has been told many times. Walter put him on skates when he was 2. Wayne seemed to love it. On Saturday nights, the family would

go over to Walter's parents' farm and watch "Hockey Night in Canada." Between periods, little Wayne liked to grab a small stick and practice shooting on his grandmother. The winter Wayne turned 4, Walter built a rink for him in the backyard. At 6, Wayne tried out for the youngest local hockey team — for 10-year-olds. Wayne made the team. In that first season, as a 6-year-old, he scored just one goal. Four years later, as a 10-year-old, he scored 378. Eventually he would break every scoring record imaginable.

In Canada, Walter, or "Wally," is almost as much a celebrity as Wayne. After all, you couldn't up and become Wayne Gretzky. But you could become Walter Gretzky — that is, a man who encourages the talent of your progeny, who tends to it, who does enough to push it along without destroying it. And the question becomes: Just how much did Walter push Wayne?

Here, the narratives become contradictory. Wayne, in his autobiography, says that he was hockey-mad from a young age, that he wouldn't stop skating and that ultimately Walter had no choice but to build a rink in the backyard. But Walter, in his autobiography, admits that he bought their house, not long after Wayne was born, specifically because it had a flat yard that he could someday build a rink on. There was a push and pull, clearly — a driven father, a preternaturally gifted child — and it's impossible at this distance to know which of them predominated.

The saddest hockey father story I know is that of the former N.H.L. player Patrick O'Sullivan. O'Sullivan's father, John, had been a minor-league hockey player who desperately wanted his son to make the N.H.L. To make that happen, O'Sullivan got his son on the ice early and often. He forced him to practice his stickhandling in the basement. He made him run alongside the car in his pads. And he regularly beat him up and yelled at him. "From the moment I got my first pair of hockey skates at 5 years old," O'Sullivan would later write, "I got the living shit kicked out of me every single day. Every day after hockey, no matter how many goals I scored, he would hit me."

This went on for a decade, through various teams in different cities, including in the U.S. national-developmental program in Ann Arbor, Mich. To the younger O'Sullivan, the mystery was always why so few people tried to intervene in what was so clearly an abusive relationship. Later on, after he stopped playing, O'Sullivan went and talked to some of his former coaches. The answer, over all, was that hockey coaches did not know how to spot abuse or how to address that abuse when they did spot it. A few made the point to O'Sullivan that hockey parents were so crazy, it was hard to tell who was just a little bit intense and who was stepping over the line.

The other part of the answer was that O'Sullivan was a great player. He led the U.S. under-18 team to a gold medal in Slovakia in 2002 and was the leading scorer on his Canadian juniors team for four straight years. No one got involved because whatever his father was doing, it seemed to be working. Patrick O'Sullivan could play.

The abuse finally ended when Patrick, at 16, physically fought back. He lost the fight but managed to get to a phone and call the police. Then he filed a restraining order and moved in with a teammate whose father was a police officer.

The abuse ended, but the trauma remained. When it came time for the N.H.L. draft, O'Sullivan, a first-round talent, dropped late into the second round, in part, he believed, because teams worried about his "baggage." In the end,

O'Sullivan had a decent career in the N.H.L., playing more than 300 games and scoring 58 goals, but he bounced around from team to team and never really found a playing home.

The beloved father Walter Gretzky did not create the monstrous father John O'Sullivan, but there is still a straight line from one to the other. Children are their own people, yes, but they are also so much at our mercy — at the mercy of our moods, our insecurities, even our dreams.



hen Raffi turned 3½, we signed him up for a skating class at the rink in Queens. It was a terrific class. The teacher was a tall, blond former college player; she was patient and imposing and beautiful, and Raffi loved her. Every time she gave him a compliment, he beamed. She had the kids hold a ball and skate with it; she had them skate along squiggly lines that she drew with a marker; she had them chase a soccer ball around the ice.

I loved the class, and I loved the rink. I loved the musty, sweaty smell; the cold air; the lousy coffee you could get from a machine for 75 cents. I loved too the feel of being there with Raffi. It was a world reversed. There were so many places we went where I had to tell him not to do things: not rip out flowers in the community garden, not poke at dog poop on the sidewalk, not crash into other kids in music class. When we were in our apartment, there was hardly anything he could do. At the rink, it was different. The ice sheet was surrounded on all sides by black rubber mats; the bleachers were created for rowdy hockey fans. Raffi could shout if he was excited, run back and forth along the perimeter of the rink if he was energetic, climb up and down on the bleachers. No one cared. More than that: They liked it. His exuberance, his physicality, his desire to crash into things — *that was hockey*. Now he just had to learn how to skate.

But there was a scheduling issue. Raffi was in day care five days a week, and on Saturday mornings he went to Russian school, and now on Sunday mornings we had hockey. In

theory, two non-day-care activities did not seem unreasonable. But in practice, it was a little much. Raffi was just 3, and that summer Emily gave birth to his baby brother, Ilya, whom he had to get to know. Emily gently suggested we drop one of his weekend commitments. After some soul-searching, I decided it had to be hockey.

In retrospect — I don't know. Raffi claimed to find Russian school boring, and he cried the first two times I dropped him off — but it was three whole hours! On a Saturday morning! It was pretty much the only time I had that year to write. And Raffi made some nice friends.

But his progress in hockey stagnated. We still went skating, just he and I, but not nearly as often. Then Raffi shot up in height and went through a phase when he would get tangled up with his feet even more than usual. You would be walking next to him, and he would suddenly just fall to the ground. Emily would look at me, like, I told you so. He has a future in the arts, her look would say. Stop trying to turn him into a mighty athlete.

**In every other** thing related to our kids, I deferred to Emily. Not that I didn't argue, present my case, cite various studies I'd looked up on my phone — but in the end, she knew them better and saw further than I did. But in this one thing, I felt as if I were on my own.

I talked to other dads. My college roommate George, a lawyer, urged patience. He said his son had no interest in watching or playing sports until the day he turned 6. Now, at 7, he was willing to watch any sport that was on TV and was constantly dragging George out of the house to throw a ball back and forth. My hockey friend Mike, a historian, said his son was resistant to skating until the day he took him up to the small outdoor rink, in Montreal, where he himself used to skate as a kid, and put him in full pads: helmet, elbow pads, hockey pants, shin pads. Armored up, indestructible and on an open rink with no time limits or pressure, his son finally got the hang of it and has been skating ever since.

My high school friend Loren, a consultant, told a more dramatic tale. He wanted his son to play soccer. At 4, the earliest opportunity, he signed him up for a team. But it turned out that his son did not want to play. He would refuse to go in when the coach said it was his turn, and if he was cajoled or pressured into going in anyway, he would sit down in his own goal and stay there until the coach finally pulled him out. Loren, incredibly, kept taking him to the games. After all, they had paid their fee. By the end of the season, his son was still refusing to play. What is more, he had infected many of his teammates with his philosophy of noncompliance — they were also now sitting in their own net and not playing.

Loren told me this not long after that terrible season ended. I was awed by his perseverance. We would surely have pulled Raffi out after a couple of games, just out of sheer embarrassment. And yet a few years later, I saw Loren again. His son was now 8. He had taken a year off and then had two fun seasons, playing along with everyone else, and had now made the travel team. The team played or practiced three times a week and then one day or even two days on the weekends. Loren's new problem was that there wasn't time left over for his son to do anything else.

Patience, persistence, a willingness to spend \$200 on pads that might never be used again — these were not my strengths as a father. But then I watched Raffi playing with his friends, or with Ilya, and I saw a boy who wanted to move, to run around,



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to climb up on things and jump off them. This, to me, was the behavior of a person who wanted to learn how to play sports. And yet at the same time he did not want to “learn” anything. Of his gym class in pre-K, he complained that it had too many rules. Among his after-school activities, he said he preferred sculpture to soccer, presumably

because there were fewer instructions. I couldn't figure out how to break through it. Thinking that Raffi might enjoy skating without all the rigmarole of getting to the rink, I bought him some in-line skates. He tried them once, immediately fell down and did not want to try them again. For months they sat unused in our closet, taking up precious space.

**There is no tragedy** like the tragedy of the bedroom, Tolstoy told Gorky when they were both living near Yalta at the turn of the last century.

For Tolstoy, the tragedy of the bedroom was the tragedy of marriage, including his own marriage to Sophia Behrs. It was his inability to remain faithful to her even as they had 13 children. It was his renunciation of lust as sinful even as he continued to experience it and give into it. It was his failure to be everything for this one person even as he was so much to so many others.

Gorky appears not to have been very impressed by this statement: He thought Tolstoy feared and hated women. But I was impressed by it. For years I thought it was the

most profound thing Tolstoy had ever said, that anyone had ever said. All the materials of literature — Tolstoy lists “earthquakes, epidemics, the horrors of disease, and all the agonies of the soul” — paled in comparison to the problems that could afflict two people left alone with each other in the same house, in the same bed, forever. They could cease to love each other; or they could misunderstand each other; or they could keep hitting their knees on the edge of the bed, because it was poorly designed. And all of it out of view of the world, in silence, with no one to talk to about it.

I now think there is a greater tragedy. When Raffi was a tiny vulnerable infant and I used to see in our neighborhood a fat, healthy 10-month-old who looked as if he could eat little Raffi, I would feel only jealousy, a desire to be where that parent was, at a less vulnerable place than the place we were. And I feel something similar now when I see a parent walking down the street with an older child, say a 10-year-old. I want to be where they are. But I also see more. I see two people who have passed through a terrible struggle. Especially when I see the child holding a soccer ball or a baseball bat, I see the struggle for independence (for both of them), the struggle for connection, the parent’s wish to teach something, the child’s wish to learn it but also to break away. I think now that there is no tragedy like the tragedy of parenthood. There is no other thing you do in life only in order for the person you do it for to leave you. When he leaves you, when he does something because he wants to do it and not because you want him to — that is success. You have done it right when you make yourself irrelevant. Parents who fail to do that have failed. I feel myself failing in exactly this way every day.

What if Raffi likes something else, was destined to do something else? But if I don’t try to teach him, how will he ever learn?

**When the Covid lockdown** began last year, Emily and I made the decision that we would take Raffi and Ilya to the park every day. We were all miserable and scared, and the only time that spring we felt somewhat OK about things was when the boys were running around on some grass.

There wasn’t all that much to do in the park, though that was OK. If there was a rock, Raffi would climb it; if there were bugs, Raffi would play with them. If there was a puddle, Ilya would jump in it. If there were other kids, the boys would try to push them around, though I found that “no touching” (because of the virus) was a pretty good and enforceable rule.

On most days I took a soccer ball with us. I just shoved it into the bottom of Ilya’s stroller. Once we arrived, I would take it out. Raffi would mostly ignore it. But we were spending so much time in the park, and there was so little else to do, that eventually he would deign to kick it a

**When I see a parent walking down the street with an older child, I want to be where they are. But I also see more. I see two people who have passed through a terrible struggle.**

couple of times. Slowly, very slowly, he got better at it. I told him — gently, I hoped — to place his nonkicking foot right next to the ball, rather than way behind it, and I told him, again more as a suggestion than a command, that he should kick the ball with his shoelaces rather than his toe. I had kind of given up, at this point, to be honest. But I saw him getting better. And I saw him very consciously, and not without difficulty, trying to do what I had suggested. It didn’t happen overnight, but eventually, because there was so much time and so little else to do, Raffi got the hang of it. If a soccer ball is sitting on the ground and not moving too fast, Raffi can now give it a nice whack.

As for hockey, all the rinks stayed closed for many months. But again out of sheer boredom and nothing-else-to-do-ness, Raffi at some point started putting on his in-line skates and gliding through the apartment. He got pretty good at it. He has even claimed a couple of times recently that he *likes* skating. There may be hope for us and hockey still.

And also, in the end, maybe not. Not long ago on the playground, Raffi and I had an interesting experience. It was an unfamiliar playground, and we didn’t know anyone there, but Raffi immediately started talking to a slight, shy boy his age. He had long brown hair, like Raffi, and, peeking out from above his mask, big brown eyes. I was standing nearby, and I heard the boy tell Raffi that all his friends had left the playground and the kids who remained weren’t being nice to him.

They were three beefy blond kids, and they were roughhousing with one another. Raffi told the boy that he would stand up to the bullies, and true to his word he went over to the other boys and puffed himself up and roared at them. But the boys were not impressed and chased Raffi away. He kept going over there, however, and eventually they just included him in their pushing and running game. The other boy sulked off, by himself, rejected again.

And almost despite myself, despite all my dreams of Raffi’s sports future, I thought: Don’t do it! Stay with the sad artsy boy. He is your true friend! You will have far more in common with him. Don’t waste your time with these other boys!

But there wasn’t much I could do. Raffi was not in the business of asking me who to play with, and I went and sat down on a bench on the other end of the playground. I thought back to my own childhood. I had always played sports, as I’ve said, had always been the roughhousing kid, but at a certain point, around the start of high school, playing sports came to occupy more and more of my time. It determined what else I could do and whom I hung out with. And it created a thin layer of distrust between myself and some of the kids who shared my interests in literature and writing. I always felt as if they were my people, and I was separated from them.

Back at the playground, about five minutes after I sat down, Raffi came to me in tears. One of the blond boys had pushed him down really hard and Raffi’s breath had been knocked from him and his back scratched up. It took an uncommon amount of time for him to stop crying, and he even curled up in my lap for a few minutes, something he almost never does anymore, and certainly not in public. “I’m not going to play with those kids again,” he told me, toward the end of his crying jag, and instead we went over to the swings, and I pushed him for a while, as high as he could go. His mood improved. And then suddenly he said: “I want to leave. I want to leave right now!” I didn’t know what had gotten into him, but I, too, was ready to leave, so I took him off the swing and followed him to the exit.

His artsy friend, the one he had rejected, was leaving — Raffi wanted to walk out with him; that’s why he was in a hurry to go. When we caught up with him and his dad, Raffi told them all about how we always bike home from the playground together and how his mom doesn’t ever get mad at him, unlike his dad, and so on. Then he very cutely said bye to the kid, and we went home. He had made a friend, the right friend, and he had done it much faster than I would have done. I was proud of him. On the ride home, he regaled me with trivia about the Transformers universe and asked me to rank the comparative size and strength of various animals. We had a good time. ♦

## Facial Recognition

(Continued from Page 39)

a communications consultant who was running for a congressional seat in New York. According to Lynch, he told her he had a great guy who could be very helpful with voter data, called the Prince — a reference to Ton-That's royal ancestry. Lynch said Schwartz didn't mention facial recognition, only "unconventional databases." Lynch ultimately chose not to work with Smartcheckr and soon ended her campaign.

It appears Smartcheckr decided against pursuing political consulting. The facial recognition it had been working on had improved. "It wasn't clear it would work until April 2018, when the accuracy part really kicked in," Ton-That said.

Two months later, the company changed its name to Clearview AI. That summer, it pitched itself as a security start-up and conducted pilot facial-recognition projects with branches of TD Bank and Gristedes Supermarket in Manhattan, according to a document provided to a potential investor. (Gristedes's owner, John Catsimatidis, confirmed its project; TD Bank said it "does not have a business relationship with Clearview AI and does not use any of Clearview AI's products.") Another investor who was approached by the company said that the product was impressive but that the ties to Charles Johnson scared him off. (He did not want to be named, fearing retribution from Johnson.)

During the course of 2018, Clearview's database grew to a billion faces from 20 million. At the end of the year, the founders dissolved the LLC they formed in New York and asked Johnson to sign a "wind-down and transfer agreement," which converted his one-third ownership in Smartcheckr LLC into a 10 percent stake in Clearview AI. The contract also entitled him to a 10 percent sales commission on any customers he introduced to the company, though Johnson hasn't been paid a commission.

The wind-down agreement, which Johnson provided to me, requires him not to "publicly disclose the existence of this agreement, his indirect ownership of the shares or his prior provision of services to the company." It is signed by Johnson, Ton-That and Schwartz. (In early March, Clearview amended its incorporation documents such that any shareholder who "breaches any confidentiality obligations" can have his or her shares bought back at 20 percent of market value. When I told Johnson about this, he responded, "That's probably not good for me.")

Johnson said in February that he was willing to break the agreement, both because he's upset about having been erased from Clearview's past and because he thinks the company should have gone further than it has in making the technology available. Johnson believes that giving this superpower only to the police is frightening — that it should be offered to anyone who would use it

for good. In his mind, a world without strangers would be a friendlier, nicer world, because all people would be accountable for their actions.

"I think Clearview should be in the hands of the moms of America," he said.

**No matter its** parentage, Clearview was inevitable. All the building blocks were there; it was just a matter of picking them up and putting them together. But it makes sense that Thiel, who seems to see personal data as a resource to be mined for riches, and Johnson, who made a career of digging up dirt on people, were part of the company's origins. Our faces are crucial to linking the digital data that's been accumulated about us with our identities in the real world. That is valuable not just to law enforcement but also to companies, advertisers, journalists and, yes, the moms of America.

The fact that this superpower is not yet available to us all may just be a fluke of history. Suppose it had been Charles Johnson, not Hoan Ton-That, who ended up at the company's helm. Or suppose — even before Clearview began — that an influential executive at Google or Facebook had successfully pushed for using the photos and algorithms they already had to let people search for faces as easily as we now search for text.

In some countries, facial recognition is already becoming as mainstream as other once-unimaginable technologies now taken for granted. In 2016, a Russian company called NTechLab developed a facial-recognition algorithm used in an app called FindFace, which matched photos of strangers to profiles on VK — essentially Russia's Facebook. Within months of its release, it was reported that people were using the app to identify sex workers, porn stars and protesters. NTechLab shut down the public FindFace app but still provides its algorithm to governments and corporations. In 2019, the technology was placed in Moscow surveillance cameras, providing a live log of who passed the cameras and when. Meant to be used to find criminal suspects, it was repurposed to enforce lockdown during the Covid-19 pandemic. In March, a man who was supposed to be quarantining went outside his apartment to take out the trash; 30 minutes later, the police were at his door.

In China, facial recognition aids in surveilling the population and in enforcing both the law and social norms. In Suzhou, local authorities have deployed it to name and shame people wearing their pajamas in public. Other uses are quite a bit more sinister, including automatically flagging the faces of Uighurs and other ethnic minorities and tracking their comings and goings. In 2018, Chinese police officers began testing out facial-recognition glasses that would let them more easily ID the people they interact with. When The New York Times analyzed a copy of the computer code underlying the Clearview AI app, a data journalist at the paper found that

## The more society-changing aspect of facial recognition in the United States may be how private companies deploy it.

it, too, was designed to be able to run on augmented-reality glasses. (The company says it has experimented with this function only in its lab.)

Facial recognition would of course look different in the American context, where the state's reach is significantly more curtailed — by both laws and norms — than it is in China or Russia. The more society-changing aspect of facial recognition in the United States may be how private companies deploy it: Americans' right to privacy is relatively strong when it comes to the federal government but very weak when it comes to what corporations can do. While Clearview has said it doesn't want to make its app available to the public, a copycat company could. Facebook has already discussed putting facial recognition into augmented-reality glasses. Within the last year, a mysterious new site called PimEyes has popped up with a face search that works surprisingly well.

Retail chains that get their hands on technology like this could try to use it to more effectively blacklist shoplifters, a use Rite Aid has already piloted (but abandoned). In recent years, surveillance companies casually rolled out automated license-plate readers that track cars' locations, which are frequently used to solve crimes; such companies could easily add face reading as a feature. The advertising industry that tracks your every movement online would be able to do so in the real world: That scene from "Minority Report" in which Tom Cruise's character flees through a shopping mall of targeted pop-up ads — "John Anderton, you could use a Guinness right about now!" — could be our future.

And imagine what you would do with a face-identifying app on your phone: a Shazam for people. You would never forget someone's name at a party again. If that pseudonymous troll on Twitter who said something nasty to you had ever tweeted a selfie, you could find out who he or she was. You could take a photo of the strangers at your poker table and know if they're pros or not. It might just be your new favorite app.

Alvaro Bedoya, a former congressional staff member who started a

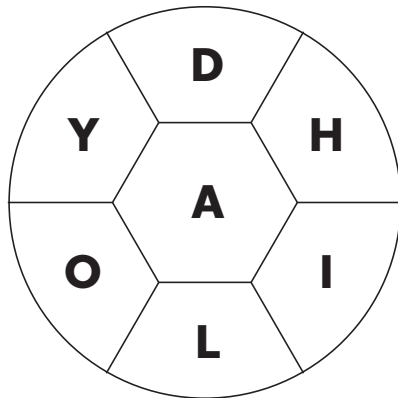
(Continued on Page 49)

# SPELLING BEE

By Frank Longo

How many common words of 5 or more letters can you spell using the letters in the hive? Every answer must use the center letter at least once. Letters may be reused in a word. At least one word will use all 7 letters. Proper names and hyphenated words are not allowed. Score 1 point for each answer, and 3 points for a word that uses all 7 letters.

Rating: 8 = good; 12 = excellent; 16 = genius



Our list of words, worth 19 points, appears with last week's answers.

# DOUBLE OR NOTHING

By Patrick Berry

Each space in this crossword will contain either two letters or no letters. Words read across or down as usual, but may skip one or more spaces.

**ACROSS**

- 1. Belligerent son of Zeus
- 5. One-tenth of a century
- 6. Smoke e-cigarettes
- 7. Former Cuban president Raúl
- 8. \_\_\_ FireBall (cinnamon candy)
- 9. Indispensable

**DOWN**

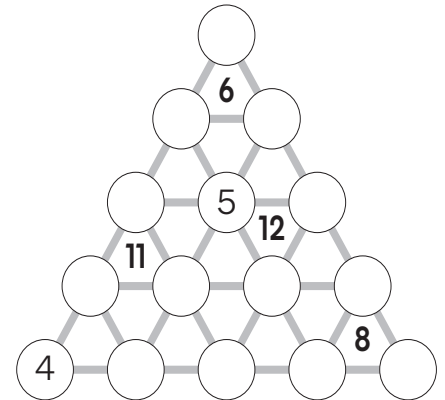
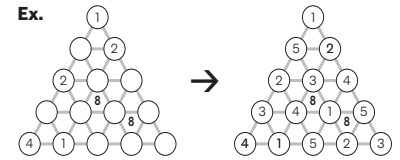
- 1. Incomprehensible to most
- 2. Emotionally wiped out
- 3. Team-building site with puzzles to solve (2 wds.)
- 4. Spread salt on, as winter roads

1	2	3	4
5			
6			
7			
8			
9			

# TRIANGULUM

By Wei-Hwa Huang

Enter the digits from 1 to 5 in the circles so that no digit is repeated along any line, and so that the bold numbers inside the grid equal the sum of the digits in the three adjacent circles. Some figures have been placed for you.



# PUNS AND ANAGRAMS

By Daniel Raymon

**ACROSS**

- 1 Seller of seafood and lamb in train section
- 8 Statement from an unfashionable person
- 15 I'm a lean writer
- 16 Feathers in an ascot
- 17 Red tint held by Neptune
- 18 Wild and mute
- 19 Craze that'll fade, mostly
- 20 Unrated old comedian
- 22 "\_\_\_ Trovatore" (fishy Verdi opera)
- 23 Computer with a mic
- 25 Bow\_ers' \_ssig\_m\_nt\_
- 26 Lab \_\_\_ (dog shelter)
- 27 They store soils
- 29 Music lovers may invest in them
- 30 B1S
- 31 Harriet E. Fuller
- 33 Established facts about actress Robin
- 34 Hesitant, sour notes
- 36 Nume\_ic\_l propo\_r\_\_\_\_n\_
- 39 It's a term meaning harm
- 43 **ER**

**44** Gay leader

- 45 Feeling that's much unchanged, you see
- 46 Burn one's ears
- 47 Acted like a trainee
- 49 \_ersian's m\_\_mu\_
- 50 Not quite half
- 51 Udderly loses it
- 53 Somewhat preowned car
- 54 What a computer might say after we arm A.I.
- 56 Like a perfect place out in Pa.
- 58 Tastes ale taps
- 59 Those who want to get even, e.g., are apt to seek this
- 60 Like the most meager resort relaxation
- 61 How 'e gets onto the highway

**DOWN**

- 1 You might see a shift in its movement in a stream
- 2 N.F.L. player, i.e., from Wyoming

- 3 "Star Wars" queen in a mail ad
- 4 Tniaf
- 5 ... while C and D followed
- 6 Cancel article from annual
- 7 Goes over terraces again
- 8 Online source for music nuts, i.e.
- 9 Candies in 1,000 tins
- 10 \_\_\_ Moss (good name for a gardener)
- 11 She's a lawyer for the government
- 12 Any person with any moose
- 13 S<sub>10</sub>
- 14 Enduring
- 21 Mythological character with many a drama done about her
- 24 More of an earful, as of humor
- 26 Put lid over cup
- 28 Tolerated to-dos
- 30 Start back in the Dispatch-Tribune
- 32 Elf's introduction
- 33 Bo's false friend
- 35 Secure in a relaxing job
- 36 Sends his reps again
- 37 Tourist guide Ma & Pa are using

1	2	3	4	5	6	7	8	9	10	11	12	13	14
15								16					
17								18					
19				20			21				22		
23			24		25					26			
27				28		29			30				
31					32				33				
			34					35					
36	37	38					39				40	41	42
43						44			45				
46					47				48		49		
50					51				52		53		
54			55					56			57		
58								59					
60								61					

- 38 This is all a rat can sing
- 40 Hardening in urn, e.g.
- 41 Gee, a car lot figure
- 42 Some seats to shorten
- 44 Most despicable beasts
- 47 Frighten head to toe
- 48 Tribal item you might visit the Met to see
- 51 Despise 31-Across, oddly
- 52 T\_istingly dr\_\_\_\_
- 55 By the sound of it, put on battle
- 57 Kind of jury



Answers to puzzles of 3.14.21

THEY ALL LAUGHED

M	C	S	S	A	M	B	A	L	E	I	C	A	W	O	R	M				
C	H	E	A	L	A	R	M	A	N	N	U	M	F	I	X	U	P			
G	R	A	F	F	I	T	I	P	R	O	O	F	B	U	I	L	D	I	N	G
R	O	S	I	E	S	O	L	O	I	S	S	U	E	D						
A	M	O	R	C	E	L	S	O	C	E	L	O	I	R	T					
W	A	N	T	S	T	H	R	E	E	B	L	A	D	E	R	A	Z	O	R	
O	H	I	S	E	E	A	R	A	L	E	N	E	M	Y						
A	S	P	D	E	C	S	O	R	R	Y	B	I	S	T	R	O				
S	P	E	L	L	C	H	E	C	K	E	R	H	E	N	C	E				
C	I	N	D	E	R	R	A	I	D	L	O	R	D	E	J	I	B			
A	C	E	S	E	L	U	D	E	F	O	R	G	E	M	O	N	A			
P	E	R	T	T	O	P	S	K	L	E	E	T	O	O	B	A	D			
R	H	E	T	T	S	N	O	W	B	O	A	R	D	I	N	G				
S	P	E	E	D	S	S	T	I	E	S	V	I	A	N	E	E				
S	P	U	D	S	W	A	I	F	B	A	L	L	O	T						
A	U	T	O	M	A	T	I	C	R	E	D	I	A	L	B	R	E	W	S	
G	N	U	L	S	E	R	S	S	U	C	H	T	R	E	O					
P	E	R	O	N	I	M	E	A	L	C	I	V	I	L						
A	L	J	A	F	F	E	E	O	F	M	A	D	M	A	G	A	Z	I	N	E
L	O	O	T	S	T	S	A	R	S	A	A	R	O	N	E	E	L			
E	B	B	S	S	T	R	A	T	M	S	D	O	S	W	R	Y				

KENKEN

4	1	2	5	3
5	4	3	2	1
1	2	4	3	5
2	3	5	1	4
3	5	1	4	2

6	2	5	4	3	1	7
7	3	6	1	2	5	4
5	7	3	6	4	2	1
3	4	2	7	1	6	5
4	6	1	5	7	3	2
2	1	7	3	5	4	6
1	5	4	2	6	7	3

ACROSTIC

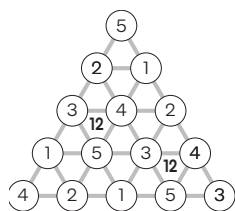
(MICHAEL) DOWNING, SPRING FORWARD — Before it became ... law, Daylight Saving was considered a joke. Even ... its ... advocates believe that when Ben Franklin took pen in hand and wrote the first detailed proposal to save daylight ... he had his tongue in his cheek.

- A. Disjointed
- B. Outflanked
- C. White knight
- D. Nathan Hale
- E. Invective
- F. Navy beans
- G. Gasoline
- H. Sandbags
- I. Pirates
- J. Red states
- K. iPhones
- L. Networked
- M. Go-ahead
- N. Fifth wheel
- O. Ophthalmic
- P. Rebooted
- Q. Woodbine
- R. Archaic
- S. Revivals
- T. Delete key

WHIRLPOOL

C	H	O	P	I	N
T	W	E	R	P	S
N	U	D	I	S	T
A	R	E	T	H	A
Y	E	S	M	A	N
A	L	P	E	R	T

TRIANGULUM



Answers to puzzle on Page 48

Holiday (3 points). Also: Aioii, ailloy, ailloy, alioha, daddy, dadaha, daily, dailly, dailly, doodad, hola, hodad, loyal, loyally, yahoo. If you found other legitimate dictionary words in the beehive, feel free to include them in your score.

Facial Recognition

(Continued from Page 47)

privacy center at Georgetown Law School, told me widespread facial recognition could both empower the government and transform civilian life — outcomes that he called “equally pernicious.” He thinks, for example, that ICE could start searching out visa overstayers for deportation by using the photos taken when they entered the country and scanning surveillance-camera feeds for them once their documentation expires. And anonymity could be eradicated in day-to-day life.

“When we interact with people on the street, there’s a certain level of respect accorded to strangers,” Bedoya told me. “That’s partly because we don’t know if people are powerful or influential or we could get in trouble for treating them poorly. I don’t know what happens in a world where you see someone in the street and immediately know where they work, where they went to school, if they have a criminal record, what their credit score is. I don’t know how society changes, but I don’t think it changes for the better.”

It’s impossible, of course, to perfectly predict how novel technologies will ultimately be used and how they will reshape our world. On the day the Capitol was stormed by pro-Trump rioters in January, Ton-That was at work in his Chelsea apartment. Then his phone began to buzz with text messages and phone calls from friends and colleagues, predicting that Clearview AI would be critical for identifying participants; despite the pandemic and the seemingly obvious incentives to conceal their identities, most of the rioters’ faces were exposed. One of Ton-That’s salespeople called because a police officer wanted free access. “I said we could because it was an emergency situation,” Ton-That said.

And in fact, the next day, the company saw a surge in searches from law enforcement. The F.B.I. wouldn’t discuss whether Clearview AI was being used for its investigation of the riot, but detectives in Alabama and Florida who collaborate with the bureau at real-time crime centers said they had identified possible rioters using Clearview and sent them to the F.B.I. “We are up to six potential matches,” an assistant Miami Police Department chief, Armando R. Aguilar, told me a week after the riot. The following week, the number was 13.

It was a remarkable turn of events. The relationships behind Clearview had germinated at an event celebrating Trump, at least according to Johnson; now, four years later, the app was being deployed in a domestic crackdown on lawbreaking Trump supporters. There had been a time when public opinion seemed set firmly against facial recognition. But suddenly — with people showing their faces while rampaging through the Capitol — Clearview and similar products seemed quite appealing.

Ton-That and I talked on the phone just a couple of days after the riot. He sounded tired and spoke hurriedly — he was pressed for time, he said, because of the incoming demand from law enforcement. He didn’t seem to harbor any remaining allegiance to Trump, calling the attack “tragic and appalling” and declaring that the transition of power should be peaceful. While he was clearly taken aback by the events unfolding in his adopted country, he also seemed keenly aware it could demonstrate the utility of his company’s product, and perhaps sway those on the fence if it played a role in finding and punishing the people involved.

“You see a lot of detractors change their mind for a somewhat different use case,” he said. “We’re slowly winning people over.” ♦

KENKEN

Fill the grid with digits so as not to repeat a digit in any row or column, and so that the digits within each heavily outlined box will produce the target number shown, by using addition, subtraction, multiplication or division, as indicated in the box. A 5x5 grid will use the digits 1–5. A 7x7 grid will use 1–7.

10*		3	1-	3-
4		4-		
3-			9+	1-
11+		2÷		
			6+	

2-	84*	10+		9+		
				16+	1	6+
5-	35*				18+	
	2÷		9+			
3÷	5-		11+			2÷
	6*		5	1-		
9+		5-		2	4-	

# MORES

By Julian Kwan

Julian Kwan, of Dumont, N.J., is a software test engineer for a telecommunications company. He started solving crosswords in college (University of Pennsylvania, class of 1997). Several years ago, he says, after noticing that all the Times puzzles had bylines, "I figured, Why couldn't one of them be me, right?" This is Julian's fourth published crossword but his first for The Times. — W.S.

**ACROSS**

- 1 SAT section eliminated by the College Board in 2021
- 6 Firth person?
- 10 Best-selling book of all time
- 15 Get the attention of
- 19 Sister-in-law of Prince William
- 20 Lead-in to pilot
- 21 Stick on
- 22 "Goodness gracious!"
- 23 Nod off at a self-serve restaurant?
- 26 Jupiter, *exempli gratia*
- 27 [Turn the page]
- 28 Sooner, informally
- 29 Diamond stat
- 30 Get down and dirty, in dialect
- 32 Bovine disease
- 34 Fancy flooring for an R.V.?
- 38 Home of Etihad Airways: Abbr.
- 39 Eyeball creepily
- 40 Requirement
- 41 Hoops grp.
- 44 Like universal blood recipients
- 48 One layer of a seven-layer dip
- 50 What the prestigious ice sculptor had?
- 55 Unable to think clearly
- 59 Goes nowhere, say
- 60 Word with holy or heating
- 61 Grammy-winning singer Cash
- 63 Certain elite school
- 64 Appear
- 65 Back in the U.S.S.?
- 66 Org. to which Taft was elected president after serving as U.S. president
- 67 "Yes, that's clear"
- 69 "Let everyone else get some steak before taking seconds!"
- 74 Mooches
- 76 Mate
- 77 Grand Central info
- 78 Surreptitious bit of communication
- 81 "What have we here!?"

- 82 Like many characters in Alison Bechdel cartoons
- 84 Nintendo release of 2006
- 85 Show runner
- 86 2013 Tony winner for Best Revival of a Musical
- 88 "We should stall!"
- 91 Long-stemmed mushroom
- 93 Egyptian god of the afterlife
- 94 Llama's head?
- 95 Button clicked to see the rest of an article
- 97 Not out, say
- 101 Target of the heckle "What game are you watching?!"
- 103 Why no one hangs out in actors' dressing rooms these days?
- 107 Played obnoxiously loudly
- 111 At 10 or 11 p.m., say
- 112 Part of lifeguard training
- 113 Navigation app
- 115 Lucky charm
- 116 American \_\_ (century plant)
- 117 Bathroom fixture that one never asked for?
- 122 Their heads get dirty
- 123 Dirt
- 124 Typos for exclamation marks if you fail to hit Shift
- 125 Opposite of neat
- 126 \_\_ strategy
- 127 Fills to the max
- 128 Set (on)
- 129 Bathroom-door sign

**DOWN**

- 1 \_\_ salt (magnesium sulfate)
- 2 Mixed-martial-arts great Anderson
- 3 What a hiree should be brought up to
- 4 Brief summary
- 5 Gab
- 6 Knocked in a pocket, in pool
- 7 Handle a job satisfactorily
- 8 Additional
- 9 \_\_ the line
- 10 Trinket
- 11 Less certain
- 12 Many a maid of honor, informally

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
19					20				21					22					
23				24				25						26					
27				28				29					30	31					
32				33			34	35			36	37							
			38					39						40					
41	42	43		44		45	46	47			48	49							
50			51						52	53	54			55		56	57	58	
59						60			61			62				63			
64					65				66			67			68				
		69		70				71	72			73							
74	75						76				77			78		79	80		
81				82			83			84				85					
86			87				88			89				90					
				91			92			93						94			
	95	96				97	98	99	100				101	102					
103					104						105	106		107			108	109	110
111								112			113		114			115			
116					117	118	119				120				121				
122					123						124				125				
126					127						128				129				


- 13 Create an account?
- 14 Not included
- 15 Marvel group led by Hercules
- 16 \_\_ monkey
- 17 Lucky charm
- 18 Plague
- 24 "My treat next time!"
- 25 Cheese sometimes paired with fig jam
- 31 Subject of the Iran-contra affair
- 33 Requirements for witnesses
- 35 Jessica of "L.A.'s Finest"
- 36 Believer in Jah
- 37 Book-fair organizer, maybe, in brief
- 41 Longtime procedural set in Washington, D.C.
- 42 Foreshadow
- 43 Pass up?
- 45 Declare
- 46 "All in the Family" mother
- 47 Tissue that's prone to tearing, for short
- 49 Italian car since 1907
- 51 Enemy in the game Doom
- 52 Sticks in a box?
- 53 Style of women's leather handbags

- 54 Isaac and Rebekah's firstborn
- 56 Piece with a title like "10 Best Places to ..."
- 57 First mate?
- 58 Recolor
- 62 Comparatively neat
- 65 Johnson & Johnson skin-care brand
- 68 Moniker after a lifestyle change
- 70 Initial problem for a storied duckling
- 71 Man's nickname that sounds like consecutive letters of the alphabet
- 72 "Phooey!"
- 73 Japanese "energy healing"
- 74 Bread for dipping
- 75 Golden ratio symbol
- 79 Actress Patricia of "Breakfast at Tiffany's"
- 80 Phone, wallet, \_\_ (traveler's mental checklist)
- 83 Gaudy jewelry
- 84 Word in obituaries
- 85 Eponymous member of the Ford family
- 87 Most cheerful

- 89 Fictional establishment selling Duff Beer
- 90 Option for an overnight guest
- 92 Campsite org.
- 95 Antacid brand
- 96 Forms of some mythological sea creatures
- 98 Turn into
- 99 Bob hopes?
- 100 Garment worn with a choli
- 102 Something Pharaoh's dream foretold in Genesis
- 103 Make a goat
- 104 Heavies
- 105 "Pearls Before \_\_" (comic strip)
- 106 Put away
- 108 Sculptor with a dedicated museum in Philadelphia
- 109 Throw out
- 110 Showers attention (on)
- 114 Lemon-bar ingredient
- 118 Food-service-industry lobby, for short
- 119 Command to a dog
- 120 Male swan
- 121 Slow (down)

**Puzzles Online** Today's puzzle and more than 9,000 past puzzles: [nytimes.com/crosswords](http://nytimes.com/crosswords) (\$39.95 a year). For the daily puzzle commentary: [nytimes.com/wordplay](http://nytimes.com/wordplay).

3/21/21

**25 Years of**  When I was  
nine, I came home on  
a Saturday afternoon,  
and my mother said,  
“Father Sager was here visiting.  
And he found a very nice  
orphanage for you.”  
And I said, “But  
I’m not an orphan, Ma.”

#175: Babysitting  
January 5, 2001

**This American Life** 

25 

Twenty-Five Years  
of Extraordinary Stories

 Listen at [thisamericanlife.org/25years](https://thisamericanlife.org/25years)

**LEARN TO FIND YOUR  
CENTER**



**WHILE YOU LEARN TO EXPRESS  
YOURSELF**



**WHILE YOU LEARN  
TO EXERT YOURSELF**



**WHILE YOU**

**LEARN TO ACT**



**LIKE SOMEBODY ELSE**

**WHILE YOU LEARN TO**

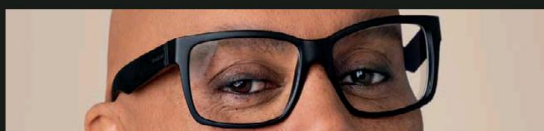
**SING**



**LIKE THE BEST OF THEM**

**WHILE YOU LEARN TO**

**DO YOU**



SO MUCH **NEW** TO KNOW