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Illustration by Kyu Tae Lee

OUR COLUMNISTS

HOW LONELINESS FROM CORONAVIRUS ISOLATION TAKES ITS OWN TOLL

By Robin Wright

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At a White House press briefing on Friday, Peter Alexander, a correspondent for NBC News, asked President Trump about the psychological toll of the COVID-19 crisis: “Nearly two hundred dead, fourteen thousand who are sick, millions, as you witnessed, who are scared,” Alexander said. “What do you say to Americans who are watching you right now who are scared?” Trump shot back, “I say that you’re a terrible reporter, that’s what I say. I think it’s a very nasty question, and I

think it's a very bad signal that you're putting out to the American people." For weeks, the President seemed oblivious to the scope of the coronavirus threat; now he seems heartless about the spiralling anxiety among Americans and ignorant about the physiology of fear, after a week unprecedented in American history, during which much of the country has closed down, the economy has ground to a halt, and millions have been told to stay home. Since last week, state officials have ordered one in three Americans—living in New York, California, Illinois, New Jersey, Connecticut, Michigan, and Massachusetts—to remain indoors. For many of the rest of us, normal life has been suspended as the tally of cases soars. It all feels eerily apocalyptic—and, for most, scary.

The Los Angeles mayor, Eric Garcetti, demonstrated more compassion than Trump when he appealed, on the same day, for residents of America's second-largest city to stay home. "I know there's been a lot of crying, and it's O.K. to cry," he said. "I know there's been a lot of fear, and it's O.K. to be afraid." On Saturday, the governor of New York, Andrew Cuomo, acknowledged the "truly significant" psychological and social stresses of our uncertain times. "People are struggling with the emotions as much as they are struggling with the economics," he said. "This state wants to start to address that." He appealed to psychiatrists, psychologists, and therapists willing to volunteer to contact the state to help set up a network to provide mental-health assistance for people who are anxious or isolated.

The New Yorker's coronavirus news coverage and analysis are free for all readers.

As governors across the nation began ordering lockdowns, I talked with neuroscientists and psychologists about the impact on the human body—not of this new pathogen but of the various stresses that accompany it. The novel coronavirus has swept the globe at a time when more people are living alone than ever before in human history. The trend became noticeable in the early twentieth century, among industrialized nations; it accelerated in the nineteen-sixties. In the United States, the numbers have almost doubled over the past half century, according to the research aggregator Our World in Data. In 2019, twenty-eight per cent of households were single-person—up from twenty-three per cent in 1980. Stockholm may represent the apex of this trend: in 2012, sixty per cent of households in the Swedish city had only one person. Psychologists note the difference between living alone and loneliness. I live alone and have no family, and usually don't think much about it. But, as

the new pathogen forces us to socially distance, I have begun to feel lonely. I miss the ability to see, converse with, hug, or spend time with friends. Life seems shallower, more like survival than living.

If only we could all emulate Tom Hanks's character in "Cast Away," who survived four years stranded on a remote island with only a volleyball—nicknamed Wilson, with a face crafted off an imprint of his bloodied hand—as a companion. (Wilson replicas became so popular, almost like Teddy bears, that they are still for sale on Amazon and at Wilson Sporting Goods.) But science shows us that anxiety and isolation exact a physical toll on the brain's circuitry. They increase the vulnerability to disease—by triggering higher blood pressure and heart rates, stress hormones and inflammation—among people who might otherwise not get sick. Prolonged loneliness can even increase mortality rates. In 2015, Julianne Holt-Lunstad, a neuroscientist and psychologist at Brigham Young University, published an analysis of seventy studies, involving 3.4 million people, examining the impact of social isolation, loneliness, and living alone. The results were notable in light of today's pandemic. The review found that loneliness increased the rate of early death by twenty-six per cent; social isolation led to an increased rate of mortality of twenty-nine per cent, and living alone by thirty-two per cent—no matter the subject's age, gender, location, or culture.

"Keep in mind, this is looking at chronic effects over time," Holt-Lunstad told me. "What we are experiencing now is a disruption in our usual pattern. We all hope this is temporary and not something that will become a more chronic state." But, she cautioned, the danger is that people remain isolated after the risk dissipates. In situations where public drinking-water systems became unsafe, even after the problem was resolved and the water was made safe again, people didn't trust them and refused to drink from them. Another psychologist cited survivors of the Holocaust who ended up living in developed nations and doing well financially afterward but still hoarded food because the trauma was so imprinted on their brains. "When we get out of a habit, it's hard to get back in," Holt-Lunstad said. "So, just like we're worried about an economic recession, we should worry about a social recession—a continued pattern of distancing socially, beyond the immediate pandemic, that will have broader societal effects, particularly for the vulnerable."

Understanding the science helps. Loneliness is not just a feeling. It's a biological warning signal to seek out other humans, much as hunger is a signal that leads a person to seek out food, or thirst is a signal to hunt for water, Holt-Lunstad said. Historically, connections have been essential for survival.

During the coronavirus pandemic, the loneliness signal may increase for many—with limited ways of alleviating it.

The intersection of multiple challenges during the COVID-19 crisis—to health, employment, home, and access to resources—has produced an extreme confluence of circumstances that significantly increases the risk of depression and the kind of post-traumatic stress disorder, or P.T.S.D., associated with war zones or physical violence. About half of the people impacted by Hurricane Katrina, which hit Louisiana and the Gulf Coast in 2005, developed mental-health disorders due to the loss of homes, loved ones, income, or financial security, Dr. Sue Varma, the founding medical director of the World Trade Center mental-health program at New York University, told me. “What’s different today from the 9/11 attacks or Hurricane Katrina or the tsunami in Japan is that those episodes had finite endings. With this pandemic, we see no end in sight, so it’s more traumatic.”

Trauma is compounded because people don’t have the usual outlets—other people—to go to. “The power of touch releases oxytocin, which is a natural cuddle hormone. You see it during mother-infant bonding, an orgasm, and hugs,” Varma said. Under the current conditions, people are not getting the same level of oxytocin release from human contact.

Studies show that the health consequences of prolonged loneliness are equivalent to smoking fifteen cigarettes a day, Varma said. The condition can prompt cardiovascular disease and stroke, obesity, or premature death. It is associated with a forty-per-cent increase in the risk of dementia, a study by the Florida State University College of Medicine concluded, in 2018. Loneliness also increases the risk of clinical depression, which has its own statistical dangers. Just one episode of a major depressive disorder—meaning two weeks or more of a depressed mood, and five of nine known symptoms—increases the risk of a second episode by fifty per cent, Varma said. Those symptoms include low mood, loss of interest in activities that bring pleasure, guilt, low energy, concentration problems, appetite or weight change, sleeplessness, or slowing down. Two episodes of depression increase the likelihood of a third by seventy-five per cent—and three episodes increase the likelihood of a fourth by up to ninety-five per cent. The cycle of depression becomes increasingly hard to break.

The pandemic is forcing the human species—and our brains—to do the opposite of what we’ve learned to do over millennia in order to survive. James Coan, a neuroscientist at the University of Virginia, compared the way the brain functions in times of stress to that of a salamander. “A

salamander wants a cool, dark, wet place in the Blue Ridge Mountains. It's adapted to the environment. It knows where to find food there. If a salamander walks out from under the rock into the sun on a hot dry day, it will have a stress response—and want to get back under the rock,” Coan said. “The dilemma for us today is that we're all salamanders out in the sun told not to go back under the rock because that habitat is also the environmental niche for this virus.”

The brain has limited bandwidth to solve problems and to regulate emotions, Coan, who teaches a class on why people hold hands, told me. And so our intense sociability serves yet another purpose: to expand that bandwidth. The brain processes all manner of information more efficiently in the presence of other people, even if they are six feet away, than it does while alone, or while engaging with someone on a screen or a phone. “Virtually all of us prefer a live person rather than a remote person,” he explained. “It's a biological principle called the economy of action. The brain wants to do something at the lowest cost possible, and being with others lowers the cost of almost everything it does.” Coan has found that simply holding hands with a loved one can decrease the anxiety that causes a person to mount a stress response, and even reduce activity in the “neurologic pain signature,” resulting in an analgesic effect comparable to medication. Touch quiets the brain's emotional activity, but connecting via video conference requires an extra circuit of the brain to get the same effect. “Videoconferencing can help,” Coan said, “but it will require more work from the brain than physical presence would.”

On six continents, people have demonstrated ingenuity in making virtual connections—through Zoom, Skype, FaceTime, and other digital platforms—since the coronavirus went global, in February. There are game sites where friends can compete with each other virtually, and virtual clubs where people post videos dancing to the same song. One of my neighbors e-mailed me about joining a virtual cocktail party. Over the long term, however, turning to devices to regulate the stress brought on by social distancing and isolation will provide diminishing returns. “That will manifest in us as stress—getting sick with other things, or having short tempers, or maybe even those devices not working anymore,” Coan said. “Humans have this dire need to connect. Our brains have learned from brutal evolutionary lessons that social isolation is a death sentence.”

There may be one positive by-product of the pandemic. “I believe it's a blessing that humanity in the Western world got this disease,” Ami Rokach, a clinical psychologist at York University in Canada,

told me. For the past century, human life has focussed increasingly on money and material belongings, which, especially with technology, led to neglect of human relationships. Now that we're suddenly stuck at home, the best means of surviving, psychologically and biologically, is to interact with people by whatever means available, he said. Even as I observed quarantine, I've heard from friends I haven't seen in decades—and, in one case, forty-five years. “Loneliness is an experience we don't choose. It's always painful,” Rokach said. “When we finish a period of isolation and come out of this, I don't think society will change. We are slow learners as a species. But we will come out of it and say, ‘Wow, I did all kinds of good stuff.’ Being together may strengthen our interpersonal bonds by illustrating that human connection can help protect our health and save our sanity.”

A GUIDE TO THE CORONAVIRUS

- How to practice social distancing, from responding to a sick housemate to the pros and cons of ordering food.
- How people cope and create new customs amid a pandemic.
- What it means to contain and mitigate the coronavirus outbreak.
- How much of the world is likely to be quarantined?
- Donald Trump in the time of coronavirus.
- The coronavirus is likely to spread for more than a year before a vaccine could be widely available.
- We are all irrational panic shoppers.
- The strange terror of watching the coronavirus take Rome.
- How pandemics change history.



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