

TWO

The Aching Heart

The cacophony and distraction of modern times make it difficult to experience life fully. Bleating car alarms, grinding leaf blowers, and the nearby freeway interrupt sleep, thinking, emotions, and conversations. Social media does have certain charms and in some cases brings us together. But for many people, electronic connection is metastasizing into electronic *overconnection*, overwhelming our capacity for patience, interrupting the focus required to build real-time relationships, and herding people into unforgiving political tribes.

This state of constant interruption began long before the internet or power tools were invented. In 1802, the English Romantic poet William Wordsworth composed a sonnet titled “The World Is Too Much with Us,” in which he blames the Industrial Revolution for substituting our connections with nature with the dissipations of materialism:

The world is too much with us; late and soon,
Getting and spending, we lay waste our powers;
Little we see in Nature that is ours;
We have given our hearts away, a sordid boon!
This Sea that bares her bosom to the moon,
The winds that will be howling at all hours,
And are up-gathered now like sleeping flowers,
For this, for everything, we are out of tune;
It moves us not. . . .

In the so-called information age,* humans are even more out of tune. As during the First Industrial Revolution, technology is a primary suspect, but not the only one. A thirteen-year-old girl told me once that she was tired of hearing people say that technology is ruining children, insisting instead, “*Children* are ruining technology.” Only a teenager could say such a thing with such authority. But she had a point: digital tools do not kill souls; people do, with a little help from their gadgets.

Nonetheless, a perfect storm of digital distraction, fear of strangers, poor urban design, competitive overscheduling, and economic insecurity does tend to separate us from one another and the natural world. As a result, alarming new research suggests the growth of what some health officials call an epidemic of loneliness. Epidemic may be an exaggeration (and creativity often depends on solitude), but as former U.S. surgeon general Vivek H. Murthy writes, “We live in the most technologically connected age in the history of civilization, yet rates of loneliness have doubled since the 1980s.”

A 2006 study by the University of Arizona and Duke University revealed that surveyed Americans had a third fewer close friends and confidants than they did two years earlier, and the number of people who had no friends more than doubled during that time. In a 2010 survey on loneliness, AARP estimated that 42.6 million American adults over age forty-five suffer from chronic loneliness. According to recent census data, more than a quarter of the U.S. population lives alone, over half are unmarried, and marriage rates and number of children per household have declined. Of course, solitude or singlehood does not automatically indicate social isolation, and many adults would argue that being single can be less isolating than living in a dysfunctional nuclear family. But the *Economist* reports that in Britain “half a million people regularly go up to a week without seeing anybody.” In 2017, at the 125th annual convention of the American Psychological Association, Julianne Holt-Lunstad, professor of psychology at Brigham Young University, presented an analysis of 148 U.S. studies showing that greater social connection can reduce the chance of early death by 50 percent. A second review of 3.4 million people in North America, Europe, Asia,

* Or, rather, the disappearing information age, as all magnetic media degrade over time. Old-fashioned acid-free paper remains the trustworthy, long-term storage medium.

and Australia, found that isolation, loneliness, and living alone were equal to or exceeded other well-accepted risk factors such as obesity for early death.

The findings of other research are particularly disturbing. Psychologist Jean Twenge at San Diego State University found that people who spend more time in front of screens and less time in face-to-face social interactions are more vulnerable to depression and suicide. A 2018 generational study by Cigna, the global health insurance company, surveyed 20,000 U.S. adults and concluded that each generation, oldest to youngest—from the Greatest Generation to boomers to millennials to Generation Z—is more socially isolated, with the Greatest Gen the least lonely and Gen Z the loneliest. It’s possible that older people are more likely to minimize their feelings and younger people are more likely to reveal them, but these findings challenge the traditional assumption that social isolation is experienced most acutely by the oldest generation. No generation should feel isolated. But what does it say about the direction of society when the younger adults are, the lonelier they may feel?

Species Loneliness

At the same moment that social interactions among people are becoming more digital and less personal, there is an isolation of another kind forming: *species* loneliness—the gnawing fear that we are alone in the universe with a desperate hunger for connection with other life. Believers in a personal God may feel they are not alone, and yet as we move away from nature, they too sense an absence. All of us are meant to live in a larger community, an extended family of other species.

The term *species loneliness* was introduced in a 1993 article in *Environmental Ethics* by Michael Vincent McGinnis, an author and editor of books about ecology and bioregionalism. Nearly two decades later, he writes, “Species loneliness in a wounded landscape moves us to want to restore our relationship with place and others, or to put it another way, modern humanity yearns to reestablish and restore an ecology of shared identity.” An individual or family cut off from positive social contacts with other people is more vulnerable to alcoholism, depression, bullying, and abuse and is more easily controlled. Cult leaders understand this too well. Likewise, our species’ vulnerability to all manner of pathologies grows with

our distancing from other species. Without contact with other-than-human kith and kin, the family of humans loses comfort, companionship, and perhaps even the sense of a higher power, however one defines it.

This hypothesis is supported by over a decade of research showing the positive impacts of nature connection on individual human health and cognition, as well as the health of communities. This body of research is relatively new, and proponents of a new nature movement are taking it to heart. An increasing number of physicians—particularly pediatricians and psychologists—are no longer satisfied that pharmaceuticals and traditional counseling alone can reverse the social isolation, depression, and substance abuse experienced by so many people, especially young people. Some now write “nature prescriptions” to encourage families to spend more time outdoors, preferably in a natural setting. Parks with the most biodiversity have the greatest beneficial impact on human psychological health. While green spaces can bring joy and reduce our stress, a deep connection to other animals has a special power to deliver us from our isolation, both as individuals and as a species. To a degree, some people are self-medicating with animals. Consider the dramatic growth in much of the Western world in the number of pets and the industries that surround them. Over the past decade in the United States, the growth in pet ownership has outpaced total household growth. Younger generations lead the pack: eighteen- to thirty-four-year-olds are the most likely to own a pet—and of young adults who don’t have a pet, a whopping 43 percent say they want one in the future.

One might ask: If our pet population is growing, why would someone need more contact with wild animals? Companion animals differ from us in ways that are easy to forget, and we tend to perceive them as part of our immediate family. To assume that pets and other domestic animals alone can fill the void of our species loneliness is like saying the only human social contacts we require are within our own nuclear family—that we don’t need our extended family, friends, or neighbors. The truth is, we humans need all the other-than-human friends we can get.

Like wind in advance of a storm, the approaching choices offer danger and possibility.

Identifying the names of geologic periods can be tricky, but the most generally accepted version holds that the current epoch began at the end of

the Paleolithic Ice Age, when Earth warmed and the world's human population began to expand rapidly, leading to ten thousand to twelve thousand years of human development, including the rise of civilizations. In 2000, atmospheric chemist Paul Crutzen, among others, focused public attention on human activities that had become so powerful a force that we now shape the very systems and conditions that regulate life on our planet. Scientists can point to empirical evidence: half the world's large rivers are dammed; 20 percent of our planetary landmass is used for agriculture; our plastics, and their derivatives, permeate nearly every living thing; our carbon pollution is largely responsible for the rapidity of climate change^{*}; our habitat destruction contributes to biodiversity collapse and ongoing mass extinctions. Perhaps 95 percent of the land-based vertebrate biomass is made up of pets and livestock living in human-created monocultures.

American biologist and researcher Eugene Stoermer came up with the term “Anthropocene” to define an age of human domination, and Crutzen brought it to public attention, beginning with a conference in 2000. In 2015, a working group of the International Commission on Stratigraphy—the largest and oldest scientific body within the International Union of Geological Sciences—formally recommended that the commission declare the end of the Holocene epoch and the beginning of the Anthropocene epoch, and this was endorsed in 2016 by the Anthropocene Working Group of the International Union of Geological Sciences, but the official determination has, at this writing, not been made. Nonetheless, Crutzen and many other scientists believe the planet has already transitioned into the Anthropocene—with suggested starting points ranging from the beginning of the First Agricultural Revolution thousands of years ago to the first detonation of a nuclear weapon in 1945. Harvard professor E. O. Wilson imagines the logical conclusion of the Anthropocene as a planet on which only people, agriculture, and domesticated animals remain. “Will we stop the destruction for the sake of future generations,” he asks, “or go on changing the planet to our immediate needs? If the latter, planet Earth will enter a

* Climate change terminology is fluid. In 2019, the *Guardian* newspaper replaced “climate change” with “climate emergency” and “global heating” in its stylebook. Other terms are also used, depending on context, including “climate breakdown” and “climate disruption.” Currently “climate change” remains the most commonly used term.

new era of its history . . . time for and all about our one species alone.” He refers to that interpretation of the Anthropocene as the age of loneliness.

But wait, isn’t there a more aspirational way to think about the next epoch?

The late Thomas Berry, a Catholic priest whom in 1989 *Newsweek* called “the most provocative figure among the new breed of eco-theologians,” often used the word *communion* to describe what he considered our connection with the divine in nature: “The universe is a communion of subjects, not a collection of objects.” An object can be owned, abused, or thrown away; a subject, by his definition, is not inferior to other subjects and can have rights. In this spirit, he proposed an alternative age. Rather than an age when humans assume total control of nature, he offered the “Ecozoic era,” a geologic era of mutualism in which humans use both technology and spirituality to live in harmony with nature.*

Similarly, the Australian ecophilosopher Glenn Albrecht argues for a new epoch that he says should be called the “Symbiocene” (from the Greek *symbiosis*, or “companionship”). He introduced this concept in 2011 “as an almost instinctive reaction against the very idea of the Anthropocene.” The scientific interpretation of the word *symbiosis* “implies living together for mutual benefit. . . . As a core aspect of ecological and evolutionary thinking symbiosis, and its associated symbiogenesis, affirms the interconnectedness of life and all living things.”

Though they use different terms, Berry and Albrecht point in the same direction: away from an age of loneliness and toward an age of connectedness.

An Altered View of Human Exceptionalism

To compress the almost incomprehensible enormity of life into easier-to-digest pieces, we tell ourselves stories. Nearly every society’s origin myth—its primary story and the ongoing mythology that follows—features

* The concept of the Ecozoic era was developed by Brian Swimme and Thomas Berry in their coauthored *The Universe Story from the Primordial Flaring Forth to the Ecozoic Era: A Celebration of the Unfolding of the Cosmos* (San Francisco: HarperSanFrancisco, 1992) to describe a geologic era in which humans once again live in a mutually enhancing relationship with Earth and the Earth community but using new tools and a higher power to get there. “What Does Ecozoic Mean?,” Ecozoic Times, ecozeitimes.com/what-is-the-ecozoic/what-does-ecozoic-mean/.

animals in starring roles, including talking animals. This is because they have something to say to us, or at least we think they do.

In distant ancestral time, writes John Berger, “animals constituted the first circle of what surrounded man. . . . Animals first entered the imagination as messengers and promises.” They continue to live in our imagination, a territory easily forgotten or unacknowledged. In today’s contrasting era of algorithms, life is tested, sorted, branded, and polled; experience is reduced to that which can be counted at the most basic level. The habitat of the wild heart defies numerical measurement and so goes undervalued—or demands a different system of value.

For centuries, at least within circles of industrial power, the dominant cultural and sometimes scientific frame for nature has been reductionist, mechanistic, and exploitative. However, today a new generation of researchers, therapists, and educators is challenging human exceptionalism. As toolmakers and communicators, we once thought of our species as sole proprietors of planet Earth. No longer. Humans are still generally considered fundamentally different from other animals—in that a wolf does what a wolf does while a human makes moral or intellectual choices of a different order. But even those distinctions are being questioned.

We humans are not the only story. Intelligent life populated Earth long before we came on the scene. Now we know that humans and whales share specialized neurons associated with higher cognitive functions, including self-awareness and compassion, and that these neurons may have developed in parallel. These neurons bloomed in whales thirty million years before our own. Long before Genghis Khan or René Descartes walked the earth, dolphins were conversing and communing.

Interest in the powerful and mysterious bond between humans and other animals is expanding. So is the research. A relatively new multidisciplinary subset of ethnobiology called human-animal interactions, or anthrozoology, also known as human–nonhuman animal studies (HAS), is cutting new trails at the forward edge of this frontier. HAS spans several disciplines, including social sciences such as social work, sociology, anthropology, psychology, and political science as well as veterinary medicine, zoology, and other natural sciences. It focuses on the development of an expanding consciousness of the beneficial and detrimental relationships

between humans and other animals. As environmental philosopher David Abram puts it, some people are defying the dehumanizing aspects of modern time by “becoming animal,” pursuing an integration with what he calls the “greater than human” world. Researchers are deepening our understanding of interspecies and extraspecies communication, and the coevolution of humans with other species. They also study animal intelligence, zoonotic diseases (passed between humans and other animals), and how human settlements can be integrated with other life.

It’s true that some people still believe we are at war with the rest of nature. They point to the “invasion” of raccoons and deer and coyotes in our cities; or, from another side of the battlefield, factory farming or the destruction of biodiversity. And yet other people are becoming gentler with the animals around them.

In 2016, a research team led by Kelly A. George of Ohio State University updated groundbreaking research done nearly four decades earlier by ecologist Stephen Kellert. Kellert had examined American attitudes toward nature, and George’s work revealed substantial and unexpected societal change since that 1978 survey. The work of George and his team detected what appeared to be growing public concern for the welfare of both wild and domestic animals. Why? Writer Brandon Keim offers a possible explanation of the study’s findings in the journal *Conservation*, in an article with a surprising title: “America Is Becoming a Kinder, Gentler Place (toward Animals, Anyway).” Since Kellert’s earlier survey, “the loss of biodiversity has accelerated,” Keim notes, citing George’s study. At the same time, he adds, “the science of animal cognition has produced overwhelming evidence for intelligence” within the animal world. Partially as a result, animal-welfare issues have moved into the culture’s mainstream awareness, “people in the U.S. generally feel more kindly toward wild animals,” and attitudes have improved most toward “historically stigmatized species” [including] sharks, bats, vultures, wolves, and coyotes.” He adds, “The only species whose reputations dropped substantively are raccoons and swans, though people still quite like them.”

Perhaps the most powerful factor is human loneliness and, undergirding that, our species loneliness. People once lived closely with other animals, but over the centuries and particularly in the past half century, people withdrew

from contact with wildlife and farm animals. As our lives become more technological and fearful, we adopt more pets and pull them closer. And yet we still feel drawn to the wild ones. Now something is turning. Chickens, ducks, and goats are returning to backyards. Our disconnection from other humans and other species fuels the growing use of animal-assisted therapy to help people with mental and physical disabilities. And as if called, wild animals are appearing in our suburbs and cities in unprecedented numbers. This new proximity is driven by development patterns and the rule-changing forces of climate disruption. New rules present dangers to both people and to other animals. They also offer new opportunities to rediscover our lost intimacy with the living world, including our fellow humans. In the darkness at the edge of town, or even next door, wild animals begin to change in fascinating ways. So do we.