

Space aliens. Behemoths. Vampires. Zombies. Monsters in fiction have long reflected society's fears. Take "Invasion of the Body Snatchers," the classic 1956 film in which pods from outer space conquer the human race one by one, draining all persons of their humanity. This and other Cold War-era films with an "enemies from beyond" theme underscore the paranoia around a Soviet invasion, signaling the end of individuality in the West. The 1950's also gave us "Godzilla," a metaphor for the catastrophic power of nuclear weapons.

Fast forward to the 1980s... With the specter of AIDS on the rise, and anxiety over blood contamination, Anne Rice's 1985 novel The Vampire Lestat became a media sensation, reviving a genre of well-groomed men who are linked by the curse of infection.

What are we to make of the zombie craze of the last decade? The fad has woven itself so tightly into our culture that even canonical literature and history have been rewritten to incorporate them—from the 2008 novelistic parody Pride and Prejudice and Zombies to the 2012 film "Abraham Lincoln vs. Zombies," in which the President must battle the "Confederate undead."

Is it really a surprise or coincidence then, that there is the fascination with both zombies and the mass popularity

of personal electronic devices? Walk down any city street, stand on any train platform, visit any coffeehouse and odds are that an ever-growing majority of the people are staring vacantly into some sort of portable screen. Their ability to hear ambient noise is blocked by the presence of earbuds—or even industrial-strength headphones more suitable to aviation. People lumber down the street—absentmindedly, in the truest sense of the word—looking but not seeing, hearing but not listening.

That a small, shimmering piece of alloy can connect us to people, information, and entertainment far, far away is the stuff of science fiction. It is startling to behold; it feeds us the illusion of proximity and makes the world a seemingly smaller place. At the same time, it disconnects us from all the sights, sounds, and other sensory experiences of our immediate surroundings. And, at our peril, we let these devices stand in as our surrogate brains. Convenience impels us to search the Internet for information that, in fact, we often already know, and until just a few years ago, we routinely accessed with our own mind. Not performing these mental calculations can take its toll.

In this age of technological marvels, lifespan has grown longer. The key is extending "healthspan," i.e., mobility, cognitive clarity, and overall quality

of life into old age. Experts prescribe regimens of diet, exercise, and rest. Brain fitness must be part of that regimen. Forgoing the use of our brains for even the simplest calculations is akin to driving the shortest distances when we could walk. There are few outward physical manifestations of "mental flabbiness," but the atrophy is no less real.

Yet, there is a time and place for technology. It should serve as a supplement to—not a substitution for—in-person communication. I cite the following experiments to support the fact that misuse or overuse of so-called social media tools piles another layer of distraction on top of our already distracted selves. It takes more effort than ever to be fully present.

In a 2008 research study at Western Washington University, a college student put on a purple and yellow clown suit with polka dot sleeves; oversized apple-red shoes, and a nose to match. For one hour, he pedaled a unicycle around the center of campus. When the researchers asked 347 passers-by if they'd just seen "anything unusual," the results were revealing.

The pedestrians most likely to notice the clown were those walking with a friend (60%). Next in line, though substantially lower, come those walking alone, with or without headphones (33%). The ones least likely by far to notice the clown were people

talking on a cellphone—merely 8%. The researchers noticed that the cellphone users also tended to walk more slowly, change directions at random, weave off course, and be oblivious of other pedestrians whom they knew. This phenomenon has a name: inattentional blindness

In his book Fooling Houdini, which discloses how magicians leverage this distraction to their advantage, author Alex Stone explains how it works:

Objects and events appearing directly before our eyes, in what psychologists call the zone of fixation, frequently go unnoticed when our attention is elsewhere, as if our vision somehow stops working when we're distracted.... Audible noises become inaudible, simple words turn to gibberish, and even tactile sensations go unfelt when our attention wanders.

To drive this point home, Stone cites a revelatory thirty-second film created by Daniel Simons, a cognitive scientist at the University of Illinois. This experiment is actually a study in misdirection, a true case of not seeing the forest for the trees.

In this film, research subjects watch six basketball players—three in white T-shirts and three in black—move around the court. The viewers are told to count how many times the team in white passes the ball. Those watching the film are so fixated on counting the number of passes that most fail to notice what should be patently obvious: a woman in a gorilla suit struts into the middle of the game, stops dead center, throws her head back dramatically and starts beating her chest, and then shuffles out of view. The gorilla is in the picture for about one-third of the film—a total of nine seconds. Yet, time and time again, more than half of the first-timers who see the film are unaware of the gorilla right in front of them because their attention is diverted. Simons and his colleague Christopher Chabris detail this and other examples of misperception in their 2011 book The Invisible Gorilla.

What's especially fascinating

about this study is that some of those watching the video wore eye-tracking devices. Viewers looked directly at the gorilla for up to one second yet did not see it. So, even when we humans think we're giving something our full attention, it turns out that there are things we miss. When we splinter our attention on purpose—we know this behavior as multitasking—we notice even less.

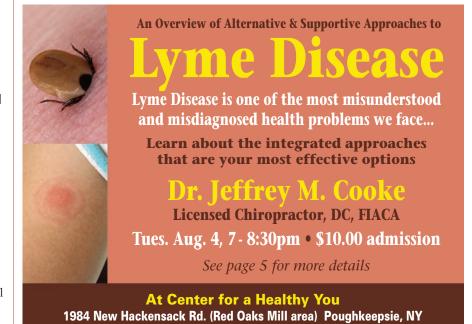
In 2008, the RAC Foundation, a British nonprofit organization that analyzes the behavior of drivers, tested young adults aged 17 to 24 in driving simulators to see how texting impacted their reaction times. The results? Those texting fared significantly worse in steering control and keeping a safe distance than if they'd been driving under the influence of alcohol or marijuana.

In his landmark 2006 book, Crazy-Busy: Overstretched, Overbooked, and About to Snap!, Dr. Edward Hallowell debunks the myth that multitasking makes us more productive. In fact, it can create even more stress and reduce efficiency. Activities that rely on similar cognitive functions, such as reading, writing, and driving, cannot be done together effectively. Dr. Hallowell calls it "a big illusion" and likens multitasking to "playing tennis with three balls."

One of the most highly publicized research projects on multitasking was carried out in 2009 by Stanford Professor Clifford Nass. Nass and his colleagues presumed that people who frequently juggled computer, phone, or television screens—or just different applications—would perform well. But that's not what the results showed.

"It turns out multitaskers are terrible at every aspect of multitasking," Nass said in an interview with the PBS Program Frontline. "They're terrible at ignoring irrelevant information; they're terrible at keeping information in their head nicely and neatly organized; and they're terrible at switching from one task to another." Nass added, "However, when we talk with the multitaskers, they seem to think they're great at it and seem totally unfazed and totally able to do more and more and more."

Some tasks that use different cognitive functions can be done at the same time. Listening to music and writing call on different parts of the brain, so there's no danger in doing both at once. (Another low-risk combo is singing while showering.) In fact, research has found that background noise at a modest decibel level, whether music or even the rhythmic hum of conversation, may even enhance creativity.



Conversely, a single loud voice, especially one side of a cell phone conversation, can quickly disrupt the creative process. An article in The Journal of Consumer Research—"Is Noise Always Bad? Exploring the Effects of Ambient Noise on Creative Cognition"— explores this further.

Overheard cell phone conversations—now termed "halfalogues"—have officially been classified as an irritant. Not carcinogenic like second-hand smoke, but equally as noxious. Our brain's attention gets diverted as we either try to tune out a partial conversation or involuntarily "fill in the blanks," according to Veronica V. Galván, an assistant professor of psychology at the University of San Diego and lead author of a 2013 study on why these increasingly ubiquitous conversations trigger a psychological stress response (e.g., anger, powerlessness) in bystanders. "If you only hear one person speaking, you're constantly trying to place that part of the conversation in context," Dr. Galván said in a New York Times interview. "That's naturally going to draw your attention away from whatever else you're trying to do." Not surprisingly, bystanders paid more attention to the overheard phone call (despite attempts to tune it out) than they did to the task at hand.

All of this brings us back to one simple point: in this age of shiny new technology, it takes a great deal more self-discipline to stay focused and avoid being a victim of shrinking attention span disorder. The world doesn't need any zombies.

Brent Sverdloff, a practitioner of trained-memory methods for 35 years, has helped countless students and professionals across the country improve their powers of recall. He leverages his M.A. in Romance Linguistics to help participants grasp language patterns and enhance retention of any subject matter. A former non-profit executive, Brent is the also the author of How Could I Forget You! A Creative Way to Remember Names and Faces, and a

portion of this article is excerpted from it. He offers memory coaching for individuals and groups. Learn more at www.FlexYourMemory.com.

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SOME SIMPLE THINGS YOU CAN DO TO LIMBER UP YOUR BRAIN

Read in hard copy. Notice how differently you experience a hardcover book, a newspaper, a magazine, or a handwritten letter: the weight, the finish of the paper, the smell, the sound of it rustling, the different movements required to fold back the pages based on its size, and the position on the page of a piece of information (contorting a newspaper can seem like an exercise in large-scale origami). These motions spur muscle memory, help you engage more deeply with the content, and increase your likelihood of retaining the information.

Compose your to-do lists, take notes, and write out appointments in longhand. Just as reading in hard copy stimulates muscle memory, writing freehand better reinforces retention more than typing on a keypad. This phenomenon is known as "desirable difficulty"-exerting a tad more effort gives you more traction.

Rely less on speed dial. When phoning, manually key in a phone number on occasion.

Stick Post-It notes in places where you can't miss them.

Floss regularly. Yes, really, and not just for the physical exercise. Recent research shows that gum diseaserelated bacteria may lead to inflammation in the brain and give rise to a host of health issues, including dementia, heart disease, and stroke.

Solve puzzles. Research is inconclusive as to the long-term cognitive benefits of tackling crosswords and other puzzles. Still, it can't hurt. Even better, sit down with a friend and play Scrabble or some other physical board game. Pay tribute to Professor Clifford Nass, who said, "We've got to make face-to-face time sacred, and we have to bring back the saying we used to hear all the time, and now never hear. 'Look at me when I talk to you."

PILATES: Women's Best Friend for All Ages & Stages



Pilates is a method of exercise that really is perfect for everybody. In fact, the inventor of the method, Joseph Pilates, had the intention that everyone of every age should do Pilates from childhood to adulthood. From the 1920's – 1960's, Joseph Pilates worked with men, women, and children who wanted to exercise using his method. And, in Pilates studios today, just like in Joe's studio, a wide variety of people can be found, benefitting from his amazing method.

What is the Pilates Method all about?

Romana Kryzanowska, the protege of Joseph Pilates, once described Pilates as such, "Pilates can be described as three words: stretch with strength and control. And the control part is the most important, because that's what makes you use your mind!" She really did describe Pilates well. In Pilates, instructors teach directly to the bodies in front of them. Everyone has different issues to work on, not one body is absolutely perfect. Clara Pilates, the wife of Joseph Pilates, once said, "Everyone comes in with their own handicaps, and we smooth them all out."

Specifically, Pilates trains the body to engage the core muscles for stability before movement. This biomechanical knowledge within the body is priceless and key to avoiding future injuries; living the life we want to live, doing things we want to do based on our desires and not our limitations. It takes hours of practice and patience to re-train our body to use its core muscles to initiate movement and to stabilize. Once it's learned, quality of life improves. However, that does not mean Pilates gets easier! In fact, in many ways it gets harder! As soon as we have a base to work from, we can do more advanced movements and dig deeper into the ones we've already learned.

In the days of Joe Pilates, there was only one "type" of Pilates exercises his! He very rarely approved of anyone teaching his method. He liked to have complete control of what was being taught under his name. These days, anyone can say they teach "Pilates". It has truly become buyer-beware. It's important for anyone seeking Pilates to address the issues listed here and to choose an Authentic, or Classical, Pilates Teacher in order to know that

what is being taught is really the Pilates Method.

Many people think Pilates is just for women. It's not, of course! Still, it does hold incredible benefits for women, and here are a few of those benefits:

Osteoporosis

Unfortunately, osteoporosis is another issue that affects far too many women. Women become susceptible to osteoporosis as they age due to decreasing estrogen levels. Left untreated, osteoporosis can cause inflexibility and brittle bones. However, Pilates is a form of weight-bearing exercise and can help maintain flexibility and increase bone density.

Many exercises on the Pilates equipment are weight-bearing, such as Footwork on the Reformer, and Going Up Front on the High Chair. All Pilates mat exercises are weight-bearing as well, because we use our own body weight to control and conduct the movements. These include exercises like push ups, abdominal exercises, and

In my 15 years of teaching Pilates, I've had quite a few clients with the onset of osteoporosis eventually get their bone density checked again and they proudly see it has gone up in part because of our Pilates work!

With osteoporosis, it's key to work one-on-one with an experienced, classical Pilates teacher who knows when to avoid certain movements and positions that may include too much flexion. Flexion can be contraindicated for osteoporosis. A doctor's note, both giving the ok to exercise, and listing the do's and don'ts for each of our unique bodies, is a must.

Poor Posture

There are all kinds of reasons why women slouch with poor posture. Body image issues, long hours sitting, inheriting a physical stance, and habitual movement patterns are some of the most common reasons.

Pilates corrects poor posture by putting the body through a specific se-