# Chatter

# The Voice in Our Head, Why It Matters,



# and How to Harness It



# Ethan Kross

"This book is going to fundamentally change some of the most important conversations in your life the ones you have with yourself." —Adam Grant, bestselling author of GIVE AND TAKE



THE VOICE IN OUR HEAD, WHY IT MATTERS, *and* HOW TO HARNESS IT

# Ethan Kross



Copyright © 2021 by Ethan Kross

All rights reserved.

Published in the United States by Crown, an imprint of Random House, a division of Penguin Random House LLC, New York.

CROWN and the Crown colophon are registered trademarks of Penguin Random House LLC.

Library of Congress Cataloging-in-Publication Data Names: Kross, Ethan, author. Title: Chatter / Ethan Kross. Description: First edition. | New York : Crown, [2021] | Includes bibliographical references and index. Identifiers: LCCN 2020025201 (print) | LCCN 2020025202 (ebook) | ISBN 9780525575238 (hardcover) | ISBN 9780593238752 (international edition) | ISBN 9780525575252 (ebook) Subjects: LCSH: Self-talk. | Thought and thinking. | Communication—Psychological aspects. Classification: LCC BF697.5.S47 K76 2021 (print) | LCC BF697.5.S47 (ebook) | DDC 158.1 —dc23 LC record available at https://lccn.loc.gov/2020025202

Ebook ISBN 9780525575252

randomhousebooks.com

Book design by Elizabeth Rendfleisch, adapted for ebook

Cover design: Anna Kochman

ep\_prh\_5.6.1\_c0\_r1

The biggest challenge, I think, is always maintaining your moral compass. Those are the conversations I'm having internally. I'm measuring my actions against that inner voice that for me at least is audible, is active, it tells me where I think I'm on track and where I think I'm off track.

-BARACK OBAMA

The voice in my head is an asshole.

—DAN HARRIS

## Contents

<u>Cover</u> <u>Title Page</u> <u>Copyright</u> <u>Epigraph</u> <u>Introduction</u>

> Chapter One: Why We Talk to Ourselves Chapter Two: When Talking to Ourselves Backfires Chapter Three: Zooming Out Chapter Four: When I Become You Chapter Five: The Power and Peril of Other People Chapter Six: Outside In Chapter Seven: Mind Magic

<u>Conclusion</u> <u>The Tools</u> <u>Dedication</u> <u>Acknowledgments</u> <u>Notes</u> <u>About the Author</u>

#### Introduction

I stood in the darkness of my living room, my knuckles white, my fingers tense around the sticky rubber handle of my Little League baseball bat, staring out the window into the night, trying desperately to protect my wife and newborn daughter from a madman I had never met. Any self-awareness about how this looked, or about what I might actually do if the madman appeared, had been washed away by the fear I was experiencing. The thoughts racing through my head kept repeating the same thing.

It's all my fault, I said to myself. I have a healthy, adorable new baby and wife upstairs who love me. I've put them both at risk. What have I done? How am I going to fix this? These thoughts were like a horrible carnival ride I couldn't get off.

So there I was, trapped—not just in my dark living room, but also in the nightmare of my own mind. Me, a scientist who directs a laboratory that specializes in the study of *self-control*, an expert on how to tame unrelenting negative thought spirals, staring out the window at three in the morning with a tiny baseball bat in my hands, tortured not by the boogeyman who sent me a deranged letter but by the boogeyman inside my head.

How did I get here?

#### The Letter and the Chatter

That day began like any other day.

I woke up early, got dressed, helped feed my daughter, changed

her diaper, and quickly downed breakfast. Then I kissed my wife and headed out the door to drive to my office on the University of Michigan's campus. It was a cold but tranquil, sunny day in the spring of 2011, a day that seemed to promise equally tranquil, sunny thoughts.

When I arrived at East Hall, the mammoth brick-covered building that houses the University of Michigan's storied Psychology Department, I found something unusual in my mailbox. Sitting atop the stack of science journals that had been accumulating was an envelope hand addressed to me. Curious about what was inside—it was rare that I received hand-addressed mail at work—I opened the letter and began reading it as I walked toward my office. That's when, before I even realized how hot I was, I felt a rush of sweat slide down my neck.

The letter was a threat. The first one I had ever received.

The previous week I had appeared briefly on *CBS Evening News* to talk about a neuroscience study that my colleagues and I had just published demonstrating that the links between physical and emotional pain were more similar than previous research had suggested. In fact, the brain registered emotional and physical pain in remarkably similar ways. Heartbreak, it turned out, was a physical reality.

My colleagues and I had been excited about the results yet didn't expect them to generate more than a handful of calls from science journalists looking to file a brief story. Much to our surprise, the findings went viral. One minute I was lecturing to undergraduates on the psychology of love, and the next I was receiving a crash course in media training in a television studio on campus. I managed to get through the interview without tripping on my words too many times, and a few hours later the segment on our work aired—a scientist's fifteen minutes of fame, which in fact amounted to about ninety seconds.

What exactly our research had done to offend the letter writer wasn't clear, but the violent drawings, hateful slurs, and disturbing messages that the text contained left little to my imagination about the person's feelings toward me while at the same time leaving much to my imagination about what form such malice could take. To make matters worse, the letter didn't come from a distant locale. A quick Google search of its postmark revealed that it was sent from just a dozen miles away. My thoughts started spinning uncontrollably. In a cruel twist of fate, I was now the one experiencing emotional pain so intense it felt physical.

Later that day, after several conversations with university administrators, I found myself sitting in the local police station, anxiously awaiting my turn to speak to the officer in charge. Although the policeman I eventually shared my story with was kind, he wasn't particularly reassuring. He offered three pieces of advice: Call the phone company and make sure my home telephone number wasn't listed, keep an eye out for suspicious people hanging around my office, and—my personal favorite—drive home from work a different way each day to ensure that no one learned my routine. That was it. They were not deploying a special task force. I was on my own. It was not exactly the comforting response I had hoped to hear.

As I took a long, circuitous route home that day through Ann Arbor's tree-lined streets, I tried to come up with a solution for how to deal with the situation. I thought to myself, *Let's go over the facts. Do I need to worry? What do I need to do?* 

According to the police officer, and several other people I had shared my story with, there were clear ways I could answer these questions. No, you don't need to stress out over this. These things happen. There isn't anything else you can do. It's okay to be afraid. Just relax. Public figures receive empty threats all the time and nothing happens. This will blow over.

But that wasn't the conversation I had with myself. Instead, the despairing stream of thoughts running through my head amplified itself in an endless loop. *What have I done?* my inner voice shouted, before switching into my inner frenzy maker. *Should I call the alarm company? Should I get a gun? Should we move? How quickly can I find a new job?* 

A version of this conversation repeated itself again and again in my mind over the next two days, and I was a nervous wreck as a result. I had no appetite, and I talked endlessly (and unproductively) about the threatening letter with my wife to the point that tension between us began to grow. I startled violently each time I heard the faintest peep escape from my daughter's nursery, instantly assuming that the worst fate was upon her rather than a more obvious explanation—a creaky crib, a gassy baby.

And I paced.

For two nights, while my wife and daughter slept peacefully in their beds, I stood watch downstairs in my pajamas with my Little League baseball bat in my hands, peeking out the living room window to make sure no one was approaching, with no plan for what I would do if I actually found someone lurking outside.

At my most embarrassing, when my anxiety peaked on the second night, I sat down in front of my computer and considered performing a Google search with the key words "bodyguards for academics"—absurd in hindsight but urgent and logical at the time.

#### Going Inside

I am an experimental psychologist and neuroscientist. I study the science of introspection at the Emotion & Self Control Laboratory, a lab I founded and direct at the University of Michigan. We do research on the silent conversations people have with themselves, which powerfully influence how we live our lives. I've spent my entire professional career researching these conversations—what they are, why we have them, and how they can be harnessed to make people happier, healthier, and more productive.

My colleagues and I like to think of ourselves as mind mechanics. We bring people into our lab to participate in elaborate experiments, and we also study them "in the wild" of daily human experience. We use tools from psychology and other disciplines fields as diverse as medicine, philosophy, biology, and computer science—to answer vexing questions like: Why are some people able to benefit from focusing inward to understand their feelings, while other people crumble when they engage in the exact same behavior? How can people reason wisely under toxic stress? Are there right and wrong ways to talk to yourself? How can we communicate with people we care about without stoking their negative thoughts and emotions or increasing our own? Do the countless "voices" of others we encounter on social media affect the voices in our minds? By rigorously examining these questions, we've made numerous surprising discoveries.

We've learned how specific things we say and do can improve our inner conversations. We've learned how to pick the locks of the "magical" back doors of the brain—how certain ways of employing placebos, lucky charms, and rituals can make us more resilient. We've learned which pictures to place on our desks to help us recover from emotional injuries (hint: photos of Mother Nature can be comforting just like those of our own mothers), why clutching a stuffed animal can help with existential despair, how and how not to talk with your partner after a hard day, what you're likely doing wrong when you log on to social media, and where you should go when you take walks to deal with the problems you face.

My interest in how the conversations we have with ourselves influence our emotions began long before I considered a career in science. It began before I really understood what feelings were. My fascination with the rich, fragile, and ever-shifting world we carry around between our ears dates back to the first psychology lab I ever set foot in: the household where I grew up.

I was raised in the working-class Brooklyn neighborhood of Canarsie to a father who taught me about the importance of self-reflection from an oddly early age. When I suspect the parents of most other three-year-olds were teaching their kids to brush their teeth regularly and treat other people kindly, my dad had other priorities. In his typically unconventional style, he was more concerned with my inner choices than anything else, always encouraging me to "go inside" if I had a problem. He liked to tell me, "Ask yourself *the* question." The exact question he was referring to eluded me, though on some level I understood what he was pushing me to do: *Look inside yourself for answers*.

In many ways, my dad was a walking contradiction. When he wasn't flipping off other drivers on noisy, traffic-choked New York streets or cheering on the Yankees in front of the television at home, I could find him meditating in his bedroom (usually with a cigarette dangling beneath his bushy mustache) or reading the Bhagavad Gita. But as I grew up and encountered situations more complex

than deciding whether to eat a forbidden cookie or refusing to clean my room, his advice took on more weight. Should I ask my high school crush out? (I did; she said no.) Should I confront my friend after witnessing him steal someone's wallet? Where should I go to college? I prided myself on my coolheaded thinking, and my reliance on "going inside" to help me make the right decision rarely faltered (and one day one of my crushes would say yes; I married her).

Perhaps unsurprisingly, when I went off to college, my discovery of the field of psychology felt preordained. I had found my calling. It explored the things my dad and I had spent my youth talking about when we weren't talking about the Yankees; it seemed to both explain my childhood and show me a pathway into adulthood. Psychology also gave me a new vocabulary. In my college classes, I learned, among lots of other things, that what my father had been circling around during all those years of his Zen parenting, which my markedly not-eccentric mother had put up with, was the idea of introspection.

In the most basic sense, introspection simply means actively paying attention to one's own thoughts and feelings. The ability to do this is what allows us to imagine, remember, reflect, and then use these reveries to problem solve, innovate, and create. Many scientists, including myself, see this as one of *the* central evolutionary advances that distinguishes human beings from other species.

All along, then, my father's rationale was that cultivating the skill of introspection would help me through whatever challenging situations I encountered. Deliberate self-reflection would lead to wise, beneficial choices and by extension to positive emotions. In other words, "going inside" was the route to a resilient, fulfilling life. This made perfect sense. Except that, as I would soon learn, for many people it was completely wrong.

In recent years, a robust body of new research has demonstrated that when we experience distress, engaging in introspection often does significantly more harm than good. It undermines our performance at work, interferes with our ability to make good decisions, and negatively influences our relationships. It can also promote violence and aggression, contribute to a range of mental disorders, and enhance our risk of becoming physically ill. Using the mind to engage with our thoughts and feelings in the wrong ways can lead professional athletes to lose the skills they've spent their careers perfecting. It can cause otherwise rational, caring people to make less logical and even less moral decisions. It can lead friends to flee from you in both the real world and the social media world. It can turn romantic relationships from safe havens into battlegrounds. It can even contribute to us aging faster, both in how we look on the outside and in how our DNA is configured internally. In short, our thoughts too often *don't* save us from our thoughts. Instead, they give rise to something insidious.

Chatter.

Chatter consists of the cyclical negative thoughts and emotions that turn our singular capacity for introspection into a curse rather than a blessing. It puts our performance, decision making, relationships, happiness, and health in jeopardy. We think about that screwup at work or misunderstanding with a loved one and end up flooded by how bad we feel. Then we think about it again. And again. We introspect hoping to tap into our inner coach but find our inner critic instead.

The question, of course, is *why*. Why do people's attempts to "go inside" and think when they experience distress at times succeed and at other times fail? And just as important, once we find our introspective abilities running off course, what can we do to steer them back on track? I've spent my career examining these questions. I've learned that the answers hinge on changing the nature of one of the most important conversations of conscious life: the ones we have with ourselves.

#### Our Default State

A widespread cultural mantra of the twenty-first century is the exhortation to *live in the present*. I appreciate the wisdom of this maxim. Instead of succumbing to the pain of the past or anxiety about the future, it advises, we should concentrate on connecting with others and oneself right now. And yet, as a scientist who studies the human mind, I can't help but note how this wellintentioned message runs counter to our biology. Humans weren't made to hold fast to the present all the time. That's just not what our brains evolved to do.

In recent years, cutting-edge methods that examine how the brain processes information and allow us to monitor behavior in real time have unlocked the hidden mechanics of the human mind. In doing so, they have uncovered something remarkable about our species: We spend one-third to one-half of our waking life *not* living in the present.

As naturally as we breathe, we "decouple" from the here and now, our brains transporting us to past events, imagined scenarios, and other internal musings. This tendency is so fundamental it has a name: our "default state." It is the activity our brain automatically reverts to when not otherwise engaged, and often even when we are otherwise engaged. You've no doubt noticed your own mind wander, as if of its own volition, when you were supposed to be focusing on a task. We are perpetually slipping away from the present into the parallel, nonlinear world of our minds, involuntarily sucked back "inside" on a minute-to-minute basis. In light of this, the expression "the life of the mind" takes on new and added meaning: Much of our life *is* the mind. So, what often happens when we slip away?

We talk to ourselves.

And we listen to what we say.

Humanity has grappled with this phenomenon since the dawn of civilization. Early Christian mystics were thoroughly annoyed by the voice in their head always intruding on their silent contemplation. Some even considered these voices demonic. Around the same time, in the East, Chinese Buddhists theorized about the turbulent mental weather that could cloud one's emotional landscape. They called it "deluded thought." And yet many of these very same ancient cultures believed that their inner voice was a source of wisdom, a belief that undergirds several millennia-old practices like silent prayer and meditation (my dad's personal philosophy). The fact that multiple spiritual traditions have both feared our inner voice and noted its value speaks to the ambivalent attitudes to our internal conversations that still persist today.

When we talk about the inner voice, people naturally wonder about its pathological aspects. I often begin presentations by asking audience members if they talk to themselves in their heads. Invariably, many people look relieved to see other hands shoot up alongside theirs. Unfortunately, normal voices that we hear in our heads (belonging, for example, to ourselves, family, or colleagues) can sometimes devolve into abnormal voices characteristic of mental illness. In such cases, the person doesn't believe that the voice issues from their own mind but thinks it comes from another entity (hostile people, aliens, and the government, to name a few common auditory hallucinations). Importantly, when we talk about the inner voice, the difference between mental illness and wellness is a question not of dichotomy-pathological versus healthy-but of culture and degree. One quirk of the human brain is that roughly one in ten people hear voices and attribute them to external factors. We are still trying to understand why this happens.

The bottom line is that we all have a voice in our head in some shape or form. The flow of words is so inextricable from our inner lives that it persists even in the face of vocal impairments. Some people who stutter, for example, report talking more fluently in their minds than they do out loud. Deaf people who use sign language talk to themselves too, though they have their own form of inner language. It involves silently signing to themselves, similar to how people who can hear use words to talk to themselves privately. The inner voice is a basic feature of the mind.

If you've ever silently repeated a phone number to memorize it, replayed a conversation imagining what you should have said, or verbally coached yourself through a problem or skill, then you've employed your inner voice. Most people rely on and benefit from theirs every day. And when they disconnect from the present, it's often to converse with that voice or hear what it has to say—and it can have a *lot* to say.

Our verbal stream of thought is so industrious that according to one study we internally talk to ourselves at a rate equivalent to speaking four thousand words per minute out loud. To put this in perspective, consider that contemporary American presidents' State of the Union speeches normally run around six thousand words and last over an hour. Our brains pack nearly the same verbiage into a mere sixty seconds. This means that if we're awake for sixteen hours on any given day, as most of us are, and our inner voice is active about half of that time, we can theoretically be treated to about 320 State of the Union addresses each day. The voice in your head is a very fast talker.

Although the inner voice functions well much of the time, it often leads to chatter precisely when we need it most—when our stress is up, the stakes are high, and we encounter difficult emotions that call for the utmost poise. Sometimes this chatter takes the form of a rambling soliloquy; sometimes it's a dialogue we have with ourselves. Sometimes it's a compulsive rehashing of past events (*rumination*); sometimes it's an angst-ridden imagining of future events (*worry*). Sometimes it's a free-associative pinballing between negative feelings and ideas. Sometimes it's a fixation on one specific unpleasant feeling or notion. However it manifests itself, when the inner voice runs amok and chatter takes the mental microphone, our mind not only torments but paralyzes us. It can also lead us to do things that sabotage us.

Which is how you find yourself peeking out the window of your living room late at night holding a comically small baseball bat.

#### The Puzzle

One of the most crucial insights I've had during my career is that the instruments necessary for reducing chatter and harnessing our inner voice aren't something we need to go looking for. They are often hidden in plain sight, waiting for us to put them to work. They are present in our mental habits, quirky behaviors, and daily routines, as well as in the people, organizations, and environments we interact with. In this book, I will lay bare these tools and explain not only how they work but how they fit together to form a toolbox that evolution crafted to help us manage the conversations we have with ourselves.

In the chapters ahead, I will bring the lab to you while also

telling stories about people who combat their chatter. You'll learn about the mental lives of a former NSA agent, Fred Rogers, Malala Yousafzai, LeBron James, and an indigenous South Pacific tribe called the Trobrianders, as well as many people just like you and me. But to begin this book, we will first look at what the inner voice really is, along with all the marvelous things it does for us. Then I will take us into the dark side of the conversations we have with ourselves and the truly frightening extent to which chatter can harm our bodies, damage our social lives, and derail our careers. This inescapable tension of the inner voice as both a helpful superpower and destructive kryptonite that hurts us is what I think of as the great puzzle of the human mind. How can the voice that serves as our best coach also be our worst critic? The rest of the chapters will describe scientific techniques that can reduce our chattertechniques that are rapidly helping us solve the puzzle of our own minds.

The key to beating chatter isn't to stop talking to yourself. The challenge is to figure out how to do so more effectively. Fortunately, both your mind and the world around you are exquisitely designed to help you do precisely that. But before we get into how to control the voice in our head, we need to answer a more basic question.

Why do we have one in the first place?

### Why We Talk to Ourselves

The sidewalks of New York City are superhighways of anonymity. During the day, millions of intent pedestrians stride along the pavement, their faces like masks that betray nothing. The same expressions pervade the parallel world beneath the streets—the subway. People read, look at their phones, and stare off into the great invisible nowhere, their faces disconnected from whatever is going on in their minds.

Of course, the unreadable faces of eight million New Yorkers belie the teeming world on the other side of that blank wall they've learned to put up: a hidden "thoughtscape" of rich and active internal conversations, frequently awash with chatter. After all, the inhabitants of New York are nearly as famous for their neuroses as they are for their gruffness. (As a native, I say this with love.) Imagine, then, what we might learn if we could burrow past their masks to eavesdrop on their inner voices. As it happens, that is exactly what the British anthropologist Andrew Irving did over the course of fourteen months beginning in 2010—listened in on the minds of just over a hundred New Yorkers.

While Irving hoped to gain a glimpse into the raw verbal life of the human mind—or rather an audio sample of it—the origin of his study actually had to do with his interest in how we deal with the awareness of death. A professor at the University of Manchester, he had done earlier fieldwork in Africa analyzing the vocalized inner monologues of people diagnosed with HIV/AIDS. Unsurprisingly, their thoughts roiled with the anxiety, uncertainty, and emotional pain produced by their diagnoses.

Now Irving wanted to compare these findings with a group of people who surely had their woes but weren't necessarily in aggrieved states to begin with. To carry this out, he simply (and bravely!) approached New Yorkers on the street and in parks and cafés, explained his study, and asked if they would be willing to speak their thoughts aloud into a recording device while he filmed them at a distance.

Some days, a handful of people said yes; other days, only one. It was to be expected that most New Yorkers would be too busy or skeptical to agree. Eventually, Irving gathered his one hundred "streams of internally represented speech," as he described them, in recordings ranging from fifteen minutes to an hour and a half. The recordings obviously don't provide an all-access backstage pass to the mind, because an element of performance might have come into play for some participants. Even so, they offer an uncommonly candid window into the conversations people have with themselves as they navigate their daily lives.

As was only natural, prosaic concerns occupied space in the minds of everyone in Irving's study. Many people commented on what they observed on the streets—other pedestrians, drivers, and traffic, for example—as well as on things they needed to do. But existing alongside these unremarkable musings were monologues negotiating a host of personal wounds, distresses, and worries. The narrations often landed on negative content with utterly no transition, like a gaping pothole appearing suddenly on the unspooling road of thought. Take, for example, a woman in Irving's study named Meredith whose inner conversation pivoted sharply from everyday concerns to matters of literal life and death.

"I wonder if there's a Staples around here," Meredith said, before shifting, like an abrupt lane change, to a friend's recent cancer diagnosis. "You know, I thought she was going to tell me that her cat died." She crossed the street, then said, "I was prepared to cry about her cat, and then I'm trying not to cry about her. I mean New York without Joan is just...I can't even imagine it." She started crying. "She'll probably be fine, though. I love that line about having a 20 percent chance of being cured. And how a friend of hers said, 'Would you go on a plane that had a 20 percent chance of crashing?' No, of course not. It was hard to get through, though. She does put up quite a wall of words."

Meredith seemed to be working through bad news rather than drowning in it. Thoughts about unpleasant emotions aren't necessarily chatter, and this is a case in point. She didn't start spiraling. A few minutes later, after crossing another street, her verbal stream circled back to her task at hand: "Now, is there a Staples down there? I think there is."

While Meredith processed her fear about losing a beloved friend, a man named Tony fixated on another kind of grief: the loss of closeness in a relationship, and perhaps even the relationship itself. Carrying a messenger bag down a sidewalk scattered with pedestrians, he began a self-referential riff of thoughts: "Walk away...Look, suck it up. Or move on. Just walk away. I understand the thing about not telling everybody. But I'm not everybody. You two are having a goddamn baby. A phone call would have been good." The sense of exclusion he felt obviously cut him deeply. He seemed to be poised on a fulcrum of sorts, between a problem in search of a solution and pain that could lead to unproductive wallowing.

"Clear, totally clear. Move forward," Tony then said. He used language not just to give voice to his emotions but also to search for how best to handle the situation. "The thing is," he went on, "it could be an out. When they told me they were having a baby, I felt a bit out. I felt a bit pushed out. But now maybe it's an escape hatch. I was pissed before but, must admit, not so pissed anymore. Now it could work to my advantage." He released a soft, bitter laugh, then sighed. "I am certain that this is an out...I am looking at this positively now...I was pissed before. I felt like you two were a family...and you two *are* a family now. And I have an out...Walk tall!"

Then there was Laura.

Laura sat in a coffee shop in a restless mood. She was waiting to hear from her boyfriend, who had gone to Boston. The problem was, he was supposed to be back to help her move to a new apartment. She had been waiting for a phone call since the day before. Convinced that her boyfriend had been in a fatal accident of some sort, the night before she sat in front of her computer for four hours, every minute refreshing a keyword search of the words "bus crash." Yet, as she reminded herself, the eddy of her compulsive negative worrying wasn't just about a possible bus crash involving her boyfriend. She was in an open relationship with him, even though this wasn't something she ever desired, and it was turning out to be very hard. "It's supposed to be open for sexual freedom," she told herself, "but it's something that I never really wanted for myself...I don't know where he is...He could be anywhere. He could be with another girl."

While Meredith processed upsetting news with relative equanimity (crying at a friend's cancer diagnosis is normal) and Tony calmly coached himself to move on, Laura was stuck with repeating negative thoughts. She didn't know how to proceed. At the same time, her internal monologue dipped back in time, with reflections about the decisions that took her relationship to its current state. For her the past was very present, as was the case for Meredith and Tony. Their unique situations led them to process their experiences differently, but they were all reckoning with things that had already occurred. At the same time, their monologues also projected into the future with questions about what would happen or what they should do. This pattern of hopscotching through time and space in their inner conversations highlights something we have all noticed about our own mind: It is an avid time traveler.

While memory lane can lead us down chatter lane, there's nothing inherently harmful about returning to the past or imagining the future. The ability to engage in mental time travel is an exceedingly valuable feature of the human mind. It allows us to make sense of our experiences in ways that other animals can't, not to mention make plans and prepare for contingencies in the future. Just as we talk with friends about things we have done and things we will do or would like to do, we talk to ourselves about these same things.

Other volunteers in Irving's experiment also demonstrated preoccupations that jumped around time, braiding together in the patter of the inner voice. For example, while walking across a bridge, an older woman recalled crossing the same bridge with her father as a girl just as a man threw himself off and committed