Loss of life
Memory and the science of electroshock therapy

A Madeleine Albright sighting in Thousand Oaks
An unearthly tribute to the late George Harrison
Atze Akkerman was urged by his doctor to try electroconvulsive therapy to treat his depression. Now his memory is gone. His sense of personal history begins two years ago—everything prior to that was the life of another person he has never met.

For a moment, think about your memory. In its simplest form, it gets you through the day—it is the foundation of routine. In its most complex form, it is the lens through which we experience life—it is our interests, our affections, our faults, prejudices, fears and hopes.

It links us to the past and guides us into the future.

In January of 2000, Akkerman underwent electroconvulsive therapy (ECT), perhaps more commonly electroshock therapy, in order to treat chronic depression. For the duration of the two-week, three-weekments, Akkerman and his wife Liz would leave their home in Camarillo at 4 a.m. and drive to Cottage 1 Santa Barbara. Liz would drop Atze off, and he would pick him up in the afternoon.

Up until the final treatment, the only side effects the man experienced were a headache and slight confusion. These side effects were inconsequential in the face of the goal; he was promised ECT would cure his depression and restore his quality of life.

However, after the last treatment, Atze Akkerman was waiting to drive him home. The stranger, he later found out, was his father.

Some doctors and patients consider ECT a procedure, a last resort in cases of debilitating depression. But to its opponents, ECT is a poorly understood, potentially dangerous alternative to less invasive therapy, especially at a time when the efficacy of antidepressant medication is constantly improving.

Akkerman is clearly of the latter opinion—he suffers from a profound and unyielding depression. A soft-spoken man with a gentle demeanor, he has been robbed of not only his past but also his present. Only after he lost ties to the most important relationships—his wife, two children, parents—did he realize how much a person's identity depends on their relationships. Relationships, he said, are built on memories. Robbed of those memories, one loses connection to others.

"It seems like I've replaced somebody else. I'm losing a wife, he's distancing himself from me and I'm in his body. I'm screwing up his life."

The origins of ECT emerge amid the imprecise early 20th-century medicine, during a time when mental illness were grossly mistreated and frequent rates in the burgeoning field of psychiatry. Italian psychiatrist Ugo Cerletti is known of ECT. In 1938, he observed slaughterhouse inducing epileptic seizures in pigs via an electric current passed through the brain. The procedure put the pigs in a...
of Life

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W hat we know about memory loss—amnesia—usually comes to us by way of fiction. On television and in movies and novels, the amnesiac victim is the tragic romantic hero, awakening to a future out of which he or she must attempt to piece together a former life. In these fictional accounts, the hero embarks on a journey to excavate the past, and eventually the amnesia dissipates through sheer will of effort, or perhaps through a simple bump on the head.

If only the brain were such a resilient organ.

For almost two years, Atze Akkerman has struggled to regain 40 years of memories lost to a two-second burst of electricity.

In January of 2000, Akkerman underwent electroconvulsive therapy (ECT), a procedure more commonly known as electroshock therapy. In order to treat chronic depression, for the duration of the two-week, thrice-weekly treatments, Akkerman and his wife Liz would leave their home in Santa Barbara, Calif., and drive to Cottage Hospital in Santa Barbara. Liz would drop Atze off and his father Art would pick him up in the afternoon.

Up until the final treatment, the only side effects Akkerman experienced were a headache and slight disorientation. These side effects were inconsistent in the scope of the goal; he was promised ECT would cure his depression and restore his grasp of the past.

However, after the last treatment, Akkerman found a stranger waiting to drive him home.

"The stranger, he later found out, was his father."

Some doctors and patients consider ECT a life-saving procedure, a last resort in cases of debilitating mental illness. But to its opponents, ECT is a poorly researched, potentially dangerous alternative to less invasive forms of therapy, especially at a time when the efficacy of psychiatric medication is constantly improving.

Akkerman is clearly of the latter opinion—the amnesia he suffers from is profound and unyielding.

A soft-spoken man with a gentle demeanor, he feels he's been robbed of not only his past but also his present sense of self. Only after he lost ties to the most important relationships—his wife, two children, parents and brother—did he realize how much a person's identity is defined by relationships. Relationships, he said, are built on shared memories. Robbed of those memories, one loses his place in the burgeoning field of psychiatry.

Without the reduced frequency of treatments, severe memory loss became slightly less common; however, broken bones from the violent ECT-induced convulsions remained a problem. In The Bell Jar, the late poet Sylvia Plath described ECT she received in 1953 at the age of 20 as treatment for suicidal depression: "...and with each flash, a great jolt throbbed me till I thought my bones would break and the sap fly out of me like a split plant."

"I wondered," she wrote, "what terrible thing it was that I had done."

The 1960s ushered in what became known as "modified" ECT: doctors began using anesthesia and muscle relaxants to stop convulsions and prevent skeletal fractures. Many ECT patients were able to quickly return to a normal life post treatment; however, the issue of memory loss remained. In 1972, a survey of psychiatrists yielded the following statement: "Treatments leave irrecoverable gaps in memory and...a large number of treatments cause intellectual deterioration, seizures or personality blunting akin to the effects of a lobotomy."

In the years since, further measures have been taken to make ECT more "humane." However, the past, combined with current debate over the potential for memory loss, has taken its toll. Despite improvements, stereotypes of ECT remain a controversial issue, the newsletter declares, "ECT is temporary memory loss, but memory returns quickly after a course of treatment."

"The most worrisome side effect of ECT is temporary memory loss, which may persist in a few cases. This remains a controversial issue," the newsletter declares.

Memory is divided into types: declarative, episodic and kinetic. Declarative memory includes remembered facts—dates, historical events, the stuff we learn in school or from reading the newspaper. Episodic memory is far more personal and subjective. It includes our experiences filtered through our individual worldview—the memory of a childhood Christmas and the feelings that accompany that memory. Kinetic memory involves physical actions that become almost routine—driving, tying shoes.

Akkerman has lost his declarative and episodic memories. While he's able to form new memories, he has no sense of his childhood, his extensive musical training or his 17-year marriage. In conversation, he double-checks usage of clichés and figures of speech that anyone else might rattle off without a second thought—things he's heard other people say but isn't always quite sure what they mean.

He watches the History Channel and rents videos in an attempt to relearn about the world. His sense of personal history begins two years ago—everything prior to that was the life of another person he's never met.

At first, Akkerman didn't realize how severe his memory loss was as Liz eloquently put it, "You don't really know what you don't know until you need to know it."

He returned home from the hospital to find he had a family, something that still seems to come as a surprise to him. At first he went along, doing the memory loss. He coped through listening and observing to see, as he described it, "where I fit into the mix."

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Loss of life continued

A few times each week, Karl Akkerman (left) fills his brother Atze (center) in on the events in a past life he can’t remember. At right is Miles Lang, a friend and lawyer for whom Atze now works as a legal intern.

He needed to ask directions to work and to the store, and he would introduce himself to people, having forgotten they were longtime friends or co-workers. At his management-level job in the mental health field, he found he had lost all knowledge of his responsibilities and of the relationships he had built with clients. He was forced to ask for a reasonable accommodation—a doctor’s order requesting that the work place accommodate an employee’s disability. In the letter, the doctor assured Akkerman’s employer that his memory “will improve completely soon.”

Akkerman clung to that belief. Mostly, though, he was unfazed, due in part to the “honeymoon” period that commonly follows ECT treatments—a period of euphoria during which, Akkerman explained, “you’re impervious to everything.”

He also developed coping skills to deal with the memory loss, trying to pretend everything was fine when he hadn’t the slightest familiarity with the world he inhabited. He put together a “game,” he said, to try to determine his relationship to people who approached him.

“If somebody smiled at me,” he recalled, “I would engage them, but I wouldn’t introduce myself. If they asked me something specific, I knew this was a person who knew me somehow. It was a hit or miss learning how to deal with these situations.”

Approximately six months after his last treatment, and as the post-ECT euphoria began to wear off, the pressure of not knowing began to take its toll. Akkerman was laid off from his job, his employer claiming he now lacked the experience to fulfill his duties. He developed migraines, chronic asthmas and high blood pressure—problems he had never experienced prior to ECT.

The asthma became most severe when he was around his family, leading one doctor to conclude these were physiological responses to stress.

“He could not pretend to be who he was before, because everything’s been erased,” Liz explained. “And just being there in the house made him feel this expectation to live up to this other man’s life.”

Akkerman’s only recourse was to distance himself physically from Liz and their two children. He’s moved away from them, to an apartment in Ventura, but he makes every effort to spend as much time as possible with them. However, after a couple hours around Liz and despite the assistance of tranquilizers and an inhaler, his asthma becomes unbearable.

“Liz,” he said, “is now kryptonite.”

Liz Akkerman is a small woman with long blond hair and a presence that puts people at ease. The word “charismatic” captures her perfectly. Her husband finds in her no faults, no signs that the marriage he can’t remember was anything but ideal. Unable to be around her, he has a hard time trying to reestablish the bond of their 17-year marriage.

He understands how hard the process has been on Liz, who is the one left with the memories of their life together.

“For him, it’s different. He literally doesn’t know what he’s lost in the same way Liz does.”

For Liz, she’s still in disbelief over how a procedure sold to them by doctors as a cure for her husband’s depression somehow turned into her worst nightmare.

“With Atze living with depression for so long, this offered some sort of hope,” she said. “He did it to have a better quality of life with us. For somebody who was so committed to his family, it’s just a tragedy.”

Akkerman’s depression, Liz said, was never to the point of debilitation. He’d have good days and bad days, she recalled, but he was always able to function. In trying to piece together his past, Akkerman came across medical records that showed he had been on a combination of medications that kept his depression in check. When his employer switched insurance plans, he found the new plan would not cover the medication nor allow him to stay with the same doctor. As a result, he was forced to stop taking one of the medications.

It was this abrupt change that led to a major bout with depression, prompting his new doctor to suggest ECT as an ideal treatment option.

Liz firmly believes that her husband would rather have lived with the depression than face ECT’s potentially serious side effects—side effects, she said, they were never fully informed of.

“If I had any clue that this was going to happen,” she said, “I wouldn’t have done it.”

Liz has kept a collection of videos, photos and cards to show her husband the sort of relationship he had had with his family. One video shows Akkerman, a former accom-
The National Institutes of Mental Health estimates that between 100,000 and 200,000 people in the United States undergo ECT each year. A more precise estimate is impossible because only four states—California, Colorado, Massachusetts, and Texas—keep records of ECT procedures.

The most recent available figures on ECT in California cover a six-year span, from 1989 to 1994. During this period, 12,310 California residents received ECT. Of that number, only about 500 cases were involuntary; the rest were performed with patient consent. However, the high number of voluntary cases comes into question based on the fact that a majority of the clients were females over the age of 65—perhaps the most vulnerable group of all. The use of ECT in geriatric psychiatry is well known and hotly debated.

Out of the 12,310 California residents receiving ECT, memory loss occurred in 20 percent of cases. This data sharply contrasts statistics published by the American Psychological Association (APA), which state that only 1 in 200 people, or one half of 1 percent, experience memory loss as a result of ECT. Only recently has the APA admitted to the significant number of patients who have been successful in regaining some of their lost memories, although there are still significant gaps. She's also been able to return to teaching after spending four years relearning some of the information that had been lost. However, her current teaching focuses more on practice—training other teachers—rather than content knowledge.

She said she would have ECT again if necessary in spite of the memory loss. "It saved my life," she said. "I would absolutely recommend it. However, I think there's an art to it. The doctor has to know the patient exceedingly well.

Ann said she also believes patients should be well informed of the procedure and the potential side effects.

Ann, who has met Akkerman through a local support group, feels perhaps his doctor was too quick to prescribe ECT. In his case, Ann doesn't believe all options were explored, and she also believes the available medications are far more effective than those of just a few years ago. Her cure has been permanent so far, although, she said, "how much is due to the drugs; how much is the ECT? I don't know."

Tom Wright, a psychiatrist with the La Mer Medical Group in Camarillo, agreed that ECT should be administered only as a last resort. Although he's seen cases of permanent memory loss as a result of ECT, he's also seen cases of permanent memory loss, which he described as wholly debilitating. During manic periods, she would go for weeks without sleeping; during depressed periods, she was unable to complete the smallest task, such as brushing her teeth.

Between 1989 and 1995, Ann underwent 130 voluntary ECT treatments, six series of 12 treatments followed by six years of maintenance. However, in 1995, her depression returned with a vengeance, and she was forced to undergo 24 back-to-back shock treatments. The treatments, combined with medication, cured her at the price of significant memory loss. A high school and college teacher, she lost too much necessary content knowledge to continue teaching—and Los Angeles, a city she had lived in for 30 years, was rendered completely unfamiliar. Most significant, however, was the effect memory loss had on close relationships.

"I no longer had [memory of] shared experiences," she explained. "It was easier to give up friendships than to pretend."

Over the past four or five years, she's been able to recover some of the lost memories, although there are still significant gaps. She's also been able to return to teaching after spending four years relearning some of the information that had been lost. However, her current teaching focuses more on practice—training other teachers—rather than content knowledge.

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ment counseling for patients and their families. He's also working to establish a countywide support group for anyone affected by ECT. So far, the handful of people he's met who have undergone ECT have experienced significant memory loss.

"We need a roadmap for understanding what happens," he explained, "and right now there isn't."

His hope is that people will question ECT a little more before rushing into it. "Maybe," he said, "it will save some other families some grief."

To enact these reforms, he's had to resort to the one and only thing that seems to initiate change when an institutional practice is involved: a lawsuit. The lawsuit targets the APA, MECTA (the leading manufacturer of electroshock machines) and the University of Michigan Medical Center, which publishes a widely distributed pamphlet on ECT that fails to mention the potential for permanent memory loss.

MECTA, it seems, is no stranger to lawsuits. Numerous patient complaints have alleged that their machines are poorly tested and maintained. In one successful lawsuit, MECTA president Robin Nichol admitted his company neither performed safety tests on their machines nor maintained machines already in use.

The main goal of the lawsuit, said Akkerman, is to open up a dialogue to force these entities to admit that memory loss is a real and potential problem and something that patients need to be informed of. ECT may provide an immediate cure, but in the long run, the side effects can be equally as serious as the condition that prompted ECT in the first place.

"I mean, you can do surgery and solve a problem," he said, "but if the person bleeds to death, what good is it?" he asked. "I think that's something that needs to be addressed. We're finding out when all's said and done that memory loss is real and we're affected by it profoundly."

Representing Akkerman is Kendrick Moxon, a Los Angeles attorney who has worked on ECT-related cases for almost 12 years. His main concern has been with the informed consent process. In the late 1980s, Moxon successfully countered a lawsuit brought against the state of California by the International Psychiatric Association for Advancement of Electrotherapy (IPAAE). The IPAAE wanted to speed up the informed consent process so patients could be given treatment on the same day they signed the consent. Moxon insisted that patients, especially those whose judgment might be impaired by depression, needed additional time to read over the consent form and weigh the consequences. Ultimately, the IPAAE dropped its lawsuit.

In Akkerman's case, Moxon is suing to have the current informed consent revised to further highlight the potential for permanent memory loss. The current consent informs patients of potential memory loss, but limits this memory loss to "events that occurred close in time to the ECT course."

This same consent also suggests that a patient's memory could quite possibly improve as a result of ECT due to the fact that many psychiatric conditions "produce impairment in learning and memory."

"The one mention of the possibility of permanent memory loss is brief, the tone almost dismissive: "A small minority of patients, perhaps 1 in 200, report severe problems in memory that remain for months or even years. The reasons for reports of long-lasting impairment are not fully understood."

Moxon views ECT as an "experimental procedure—a harmful practice made to look benign by a small number of people." He said he is especially concerned about its use on the elderly, whom he feels are often talked into giving consent for the procedure.

What keeps ECT going, Moxon said, is its profitability for psychiatrists. Each two-second jolt of electricity costs the patient, or his or her insurance company, between $800 and $1,200. Insurance companies, such as Medicaid and Medicare, are sold into covering ECT by the APA, which insists it is a quick and effective treatment, far less costly in the long run than office visits and medication.

"The information put out by the APA," said Moxon, "is just lies."

"The worst part, he continued, is the APA openly admits "they don't have a clue as to how ECT works." Success, he said, is based on the "empty-headed euphoria" patients feel after a treatment; a feeling that is simply a mask for problems that could potentially return.

Significantly, a study published this year in the Journal of the American Medical Association (JAMA) concluded that without follow-up medication, 84 percent of patients treated with ECT relapsed into depression within six months after their last treatment—the same period of time that post-ECT euphoria normally lasts. With follow-up medication, 39 percent of patients relapsed. The National Alliance for Mental Health countered the JAMA article with a statement advocating maintenance ECT in conjunction with medication.

Through the help of medication, Akkerman has been able to keep his depression in check. He feels he has two options: fall prey to depression and self-pity or focus on gaining new experiences. Through observing interactions between others, he's developed a keen, almost wistful understanding of relationships and the role memories and shared experience play in the bonds between family and friends.

He's almost voracious in his desire to experience life, to gain, what he calls, an "autobiographical memory"—an ability to participate in sharing his own life stories and experiences with family and friends. Recently, he's begun setting aside time to take walks with this brother, Karl. The goal of their time together is for Karl to fill his older brother in on his family—how the past has brought them all to where they are in the present.

"He's also gone back to work, volunteering as a legal assistant, with a goal of becoming a paralegal, possibly a lawyer. He wants, at the very least, to be able to provide for Liz and their two children. He wants to overcome his asthma and spend more time with his family, but beyond that he isn't yet emotionally ready to dwell on the future. He's dealing with a feeling of survivor's guilt, wanting to move on with his life yet struggling with the sense there's been a significant loss, a loss he can't quite fully fathom."

"To me," he explained, "I'm looking at the destruction [as] some airplane accident and I'm supposed to put the pieces together again, and it's not—I don't see it happening."

Underneath it all, though, he clings to a hope his memory will come back.

For Liz, she says she's caught in limbo, not sure whether to mourn her husband or to struggle to regain what she's lost.

"It's like having somebody you love and care about—they are there and you can touch them, but they're not there. It's like he died and I can't get him back no matter what I do. I just remember he did it to get better, he did it for us, and it took him away."

Those who want information on the Ventura County Mental Health Network's ECT Support group can call 649-2051.