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FACE TO FACE

Chuck Close in his studio in front of a work in progress, *Kara* (2010), a portrait of the artist Kara Walker.



Larger Than Life

Dyslexia, paralysis, face blindness: nothing comes between legendary artist

Chuck Close and his canvas—except a brush. BY TODD FARLEY

Chuck Close is not the sort of guy to let a neurologic disorder—or three—keep him down. The artist's portraits have been seen from the tops of New York City taxicabs to the walls of America's most esteemed museums for the past 40 years. What many people don't know is that Close has produced these iconic works of art while coping with serious impairments of body and brain. Since childhood, Close has lived with muscle weakness that remains undiagnosed, dyslexia (a reading disability that occurs when the brain does not properly recognize and process certain symbols), and prosopagnosia (or "face blindness," an impairment in the ability to recognize or differentiate between human faces). Since 1988, he has also been confined to a wheelchair due to partial paralysis resulting from a spinal stroke.

"I'm a rolling neurologic clinic," Close laughs. "You name it, I've got it."

Nevertheless, Close has had a major impact on American culture. His large-scale portraits of the human face (including more than 100 self-portraits) have led to shows at the Museum of Modern Art and inclusion in the Whitney Biennial, which is one of the leading shows in the art world. In 2000, he was awarded the highest honor conferred by the United States government on an artist: the National Medal of Arts, created by Congress in 1984. Close has made television appearances on *The Charlie Rose Show* and *The Colbert Report*. Brad Pitt and President Bill Clinton have asked to sit for portraits.

But his is no typical story of triumph in the face of adversity. In fact, Close believes he has flourished as an artist not in spite of his neurologic conditions, but *because* of them—especially his dyslexia and face blindness. "Everything in my work is directly related to my learning disabilities," Close says.

PORTRAIT OF THE ARTIST AS A YOUNG MAN

Close was born in 1940 in Washington state, an only child with a loving family but recurring physical ailments. He had vision problems including astigmatism, nearsightedness, and what he calls "some lazy-eye stuff." Due to the muscle weak-



DAILY PRACTICE Chuck Close painting *Self-Portrait* (2000-2001) in his studio on Bond Street in New York City. His motorized easel allows him to use foot pedals to raise, lower, and rotate his canvas so that the whole painting is within reach.

ness, he was clumsy and took a long time to learn how to walk. "I was uncoordinated and often had muscle fatigue," Close says. "My legs would lock up and I would fall down."

Several doctors thought the vision problems and muscle weakness (which are unrelated to his face blindness, dyslexia, and spinal stroke) were symptoms of myasthenia gravis, a neurologic disorder caused by faulty biochemical transmissions between the nerve and muscular systems, but this was never confirmed.

Still, Close never could use his arms very well when holding them over his head—he would have to switch hands four or five times when changing a light bulb. His arm weakness cost him one much-desired job when he was a teenager: driving a boat on a Washington lake.

The young Close also had difficulty reading, remembering information, and recognizing faces. "I was never able to spit back

CLOSE UP

Self-Portrait (2000-2001) shows how the abstract painting within each rectangular area blends into a photographic likeness at a longer viewing distance.

dates and facts. My brain is like a bucket with a hole in it," he says. "Information goes in but runs out the other end."

Teachers were not accepting of these differences, Close recalls. "There wasn't any such thing as a learning disability in the 1940s or '50s—not where I grew up," he says. "Kids like me were just considered dumb or lazy. No one cut you any slack." It wasn't until the 1970s, when he heard a speech about dyslexia at the grade school his daughter attended, that Close first suspected he might have a learning disability.

DYSLEXIA

"Dyslexia is an unexpected difficulty in reading in people who have the intelligence and education to be better readers," says Sally Shaywitz, M.D., co-director of the Yale Center for Dyslexia & Creativity and author of *Overcoming Dyslexia* (Knopf, 2003). "It affects both spoken language and the ability to read. Dyslexia is very common: One out of every five men and women has it. And the condition doesn't go away."

No physical evidence of dyslexia—such as damaged tissue—can be found in the brain, Dr. Shaywitz says. However, her studies using functional MRI suggest that the brains of people with dyslexia work differently than the brains of other people. (Functional MRI measures changes in blood flow related to brain activity.)

"There are three areas in the brain, one in the front and two in the back, that are activated when people read," Dr. Shaywitz says. "What we've learned is that in people with dyslexia, the two areas in the back of the brain are not activated as much."

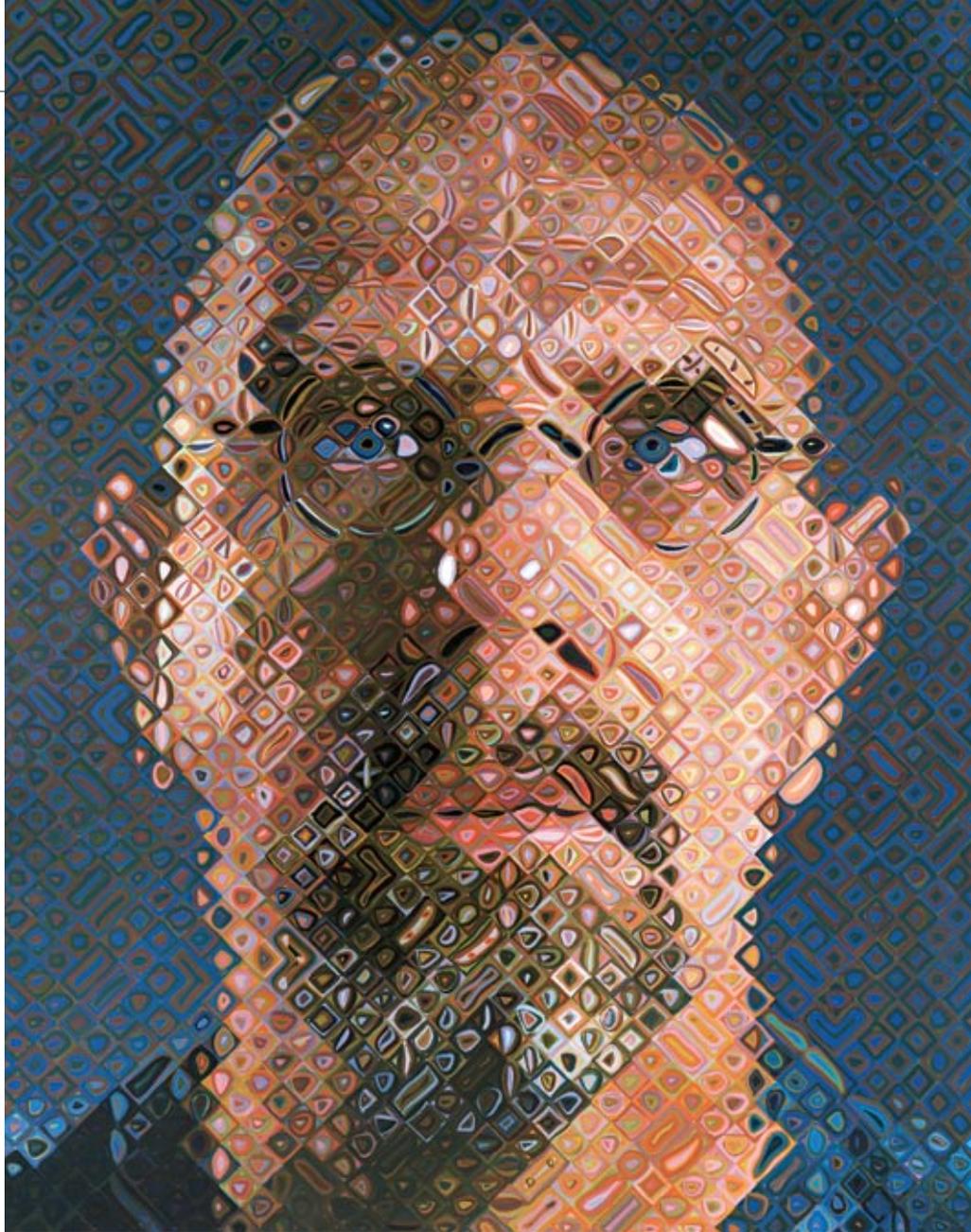
The cause of dyslexia is not known, although some combination of genetic and environmental factors may be responsible. According to most experts, the best current therapy for the condition is hard work. The earlier someone is recognized as having dyslexia, the sooner he or she can begin remediation programs to enhance reading skills. "Remediation programs teach children how to pay attention to the parts of spoken words so they can link them to individual letters," Dr. Shaywitz says. "Children with dyslexia benefit from being in very small groups and having the reading process pulled apart into workable pieces."

Most people with dyslexia find reading slow and effortful,

often resulting in the mistaken perception that either they aren't trying or aren't very smart, Dr. Shaywitz says. "I believe in the 'sea of strength' model of dyslexia, in which the condition is thought of as [an island of] weakness in processing the sounds of spoken language—for example, the word "cat" is only one syllable but contains three sounds: Ca, Aa, and Ta—"but surrounded by a 'sea of strength' in higher-order thinking and language skills, such as reasoning and problem solving," she says. (According to Dr. Shaywitz, higher-order thinking skills in people with dyslexia are no worse than in people without dyslexia, and may be better than average.)

This model seems applicable to Close, who survived his early experiences with dyslexia through ingenuity and hard work. Although Close had trouble "spitting back" names and dates, he tried in other ways to demonstrate how smart and eager he was in school. He sat in the front row and often raised his hand to answer questions, even though, he admits, they may not have been the correct (or at least the expected) responses.

Before exams, Close would put himself through what he calls a "process of sensory deprivation" that he devised. After



“You start off with a blank canvas, and day by day, week by week, you add a brushstroke here, a brushstroke there, and **something comes to life** in front of your eyes.”

immersing himself in a tub of tepid bathwater in a dark room, he would shine a single light on a textbook and read sections aloud repeatedly so his brain would retain the information, at least until test time. He thought this would help him focus intensely and exclusively on the information he needed to know.

According to Dr. Shaywitz, creating this kind of studying environment is not unusual for people with dyslexia. “During the reading process, they must pull out all stops to be able to focus on what they are reading and block out all external stimuli,” she says.

But the most important way Close survived school was by producing art projects in place of other assignments whenever he could—what he describes as “dragging extra-credit murals and maps and charts into class to demonstrate to the teacher I wasn’t dumb, lazy, or a shirker.” Once, he drew a large rendition of the entire Lewis and Clark expedition instead of writing an essay about it, a project that proved the budding artist’s interest in and knowledge of the subject while bypassing his difficulties with reading and remembering. That idea—that Close could use his art to overcome what was otherwise a deficiency—aided him greatly in school, and it also helped him deal with a different problem: face blindness.

FACE BLINDNESS

“Face blindness has plagued me since I was a child,” Close says. “I wouldn’t know my classmates. At the end of the school year, I would still have trouble recognizing them.”

Face blindness wasn’t named as a specific medical disorder until the 1940s, and cases of it were rare in the medical literature just 20 years ago. “Face blindness is the inability to perceive the identity of a face despite a person’s having adequate visual and cognitive skills to identify other visual stimuli, such as objects, written letters, or words,” says Steven Sparr, M.D., Fellow of the American Academy of Neurology (AAN) and professor of clinical neurology, Albert Einstein College of Medicine, Bronx, NY.

Someone with face blindness can recognize that another person has a face but not whom that face belongs to—even if it belongs to a family member, friend, or the person himself. (Neurologist and author Oliver Sacks, M.D., cannot recognize his own face in the mirror.) The first recognized cases of face blindness were in people who had injuries toward the back of the right side of the brain, in a location called the “fusiform face area.” While such cases are still rare, face blindness is now being recognized in much greater numbers in people who are born with the condition and have no brain injuries.

“We realize there is a spectrum,” Dr. Sparr says. “At least 2 percent—and possibly as many as 10 percent—of the general population has face blindness.”

While the causes of face blindness are not yet known, “The

condition tends to be familial,” says Dr. Sacks. “Clearly there are strong genetic determinants at work here.”

Right now, not much can be done to help people who have the disorder outside of coping mechanisms that patients develop to deal with their facial-recognition problems. No cure is currently available, Dr. Sparr says.

What is known about facial recognition is that the right side of the brain is dominant in facial processing. “One of the interesting aspects of recognizing faces—as opposed to other objects—is that it’s the most holistic thing we do,” Dr. Sparr explains. “You pull faces together all at once, like listening to a symphony, instead of figuring it out step by step. That’s a right-brain style of cognition: holistic, gestalt, putting it all together.”

Close deals with his face blindness by approaching faces more analytically, visualizing them in his mind’s eye as flat, two-dimensional images—similar to a photo—instead of live, three-dimensional parts of human beings. “Once I change the face into a two-dimensional object, I can commit it to memory. I have a photographic memory for things that are two-dimensional,” Close says.

“He’s changed the task from a right-brain, holistic one to a left-brain, analytic one. Then he can put the faces into storage,” Dr. Sparr says.

While this coping mechanism has allowed Close to manage his face blindness, it has hardly cured him of the condition, especially when seeing people in an unexpected context. The artist recalls that once on a New York City subway he failed to recognize a woman he had lived with in Paris just two years previously. “That didn’t go over too well,” Close says.

Nevertheless, his difficulty in identifying people helped turned Close into an artist famous for painting enormous faces. “You know, I’m glad other artists painted apples or bottles, but I don’t give a damn about apples and bottles,” Close says. “People’s faces have urgency for me. I don’t care about anything as much as knowing who people are.”

BREAK IT DOWN

Although face blindness in particular influenced the subject matter that would define Close’s career, his multiple learning disorders have determined the way he works. Close talks of the anxiety he felt as a child, of “being overwhelmed by the whole. You can imagine how nervous I was, not knowing who I was meeting, where I was going, or what I was looking for.”

The way Close overcame that anxiety was by tackling problems in a slow, step-by-step process he found manageable. “If you break things down into smaller, incremental units,” Close says—whether faces, directions, or the process of reading—“then it’s just one little piece of information at a time. Just one little deci-



BEFORE “THE EVENT”
Close working on *Mark* (1978-1979), his portrait of Mark Greenwald, an artist and one of his best friends. Of paralysis, Close says, “I don’t think it’s affected my art all that much.”

ski, M.D., Ph.D., director of the Center for Neural Repair, department of neurosciences, University of California at San Diego.

Although the causes of spinal strokes are sometimes unknown, their seriousness is never in question. “No treatments can bring about a full recovery of

sion, one little goal, and each can be a positive reinforcement.”

Completing “smaller, incremental units” is how Close completes his portraits, which are at least 50 times larger than the actual human face. He begins by taking a photograph of the subject. Then, he lightly pencils a grid of small boxes across a large blank canvas and meticulously paints his way from the top left corner all the way down to the bottom right, filling in each individual square with the appropriate color or colors as he goes. “You start off with a blank canvas,” he says, “and day by day, week by week, you add a brushstroke here, a brushstroke there, and something comes to life in front of your eyes.”

The methodical way that Close taught himself to paint reinforced a dogged determination that would later serve him well: In 1988, the painter experienced a devastating blockage in a spinal artery. The 48-year-old Close was at the top of the New York art world, booking one-man shows and being featured in *Time* and *Newsweek*, when on December 7 he was rushed to the hospital with chest pains he describes as “excruciating.”

“They said I was having a seizure,” Close recalls. “They gave me intravenous valium, and I had a series of big body quakes.” Almost immediately, Close was paralyzed from the neck down. He was diagnosed with “incomplete quadriplegia” and was expected to have only limited movement in all four limbs for the rest of his life.

“THE EVENT”

The official diagnosis was that Close experienced a “spontaneous occlusion of the anterior spinal artery, of unknown genesis,” he recalls, referring to it as “The Event” for short. Close had a spinal stroke, for reasons that could not be determined. Spinal strokes are rare and often of mysterious origin.

“The spinal cord is extremely delicate and needs a lot of blood,” says James F. Toole, M.D., past president of the American Neurological Association and the World Federation of Neurology. “It can’t stand to have any blood supply blocked.”

The cause of strokes (all strokes, not just spinal strokes) can be difficult to determine in people younger than middle age. “When people have a stroke at a younger age, in a third to a half of cases we never really identify the cause,” says Mark Tuszyn-

ski. However, physical therapy or an intensive physical rehabilitation program can sometimes restore *some* function,” Dr. Tuszynski explains. “When people get better after an injury, it’s often a combination of reorganization of the nervous system”—in which the parts that still work begin to do other jobs—“combined with the effects of rehabilitation, maximizing the use of whatever circuitry is still available.”

Researchers are working today to discover medications that might help insulate and protect the spinal cord and regenerate it after injury. When Close was stricken in 1988, no such options were even on the horizon. Through his hard work at physical therapy and the benefits of biofeedback, Close has been able to gain some movement in his arms (more in the biceps than the forearms) and eventually to walk a couple of steps with the use of crutches. Today he continues to live with the aid of nurses and a motorized wheelchair.

“I eat with a fork strapped to my hand,” Close says, “and I paint with a brush strapped to my wrist.”

That he would make art again was never in doubt: In the hospital, when the painter had movement only in his head and neck, he told a friend he’d work with a brush clenched in his teeth—even spit paint on the canvas if he had to. Thanks to the movement he regained in his arms, Close has painted more portraits since “The Event” than before, and people continue to celebrate his work.

“I don’t think it’s affected my art all that much,” Close says of his near paralysis. “I hadn’t made really tight photographic paintings for years, so what I was doing I could continue to do. I still use the grid pattern. The materials I use have changed, but not because of my condition. I’ve always changed materials.”

That he believes a spinal stroke leading to quadriplegia didn’t affect his art “all that much” sums up Chuck Close as a painter and a man. Put a challenge in front of him—a neurologic disorder, the looming whiteness of a massive blank canvas—and Close will find his way around or through it, one small gesture at a time. Surely there is a lesson in that for all of us. NN



For more information on dyslexia, see **RESOURCE CENTRAL** on page 36.