In his old age Sophocles was accused of being weak minded—*Cicero, 44 BC*. A tangle of forms and colours passes before us (figure 1). A white background contains long sinuous brush strokes. Primary colours—yellow, red, and blue—mix with hues of oranges and greens. The yellow shades provide depth. The images seem to move all over the canvas. The red lines emerge from the white background, swirl, some mingle with the others, still others immediately vanish. On the left, white shapes still evolve; in the centre, a massive blob and a circle float; and in the upper right quadrant an oval formation twists as it bumps against the canvas edge. We try to interpret. The curves that might resemble silhouettes, limbs, necks, torsos, umbilical cords, biomorphic shapes like those painted by Picasso and Gorky, fail the test of anatomical accuracy. Perhaps these are not human shapes at all. What are they? Ribbons, balloons, kites, or birds floating in the air? The painting's name doesn't help: *Untitled III.*

Suddenly the unthinkable assaults us. Perhaps the whole thing simply means nothing. We give it another chance. We turn the picture around and around: we tilt our heads searching for a familiar shape, for the hidden message. But the meaning escapes us.

Then we learn that the artist Willem de Kooning completed this work in 1986 at the age of 82 when he had already shown advanced signs of what officially came to be diagnosed as Alzheimer's disease.2-6 This revelation gives us some repose. Of course, the artist must be demented, his mind weakening; that explains it all.

**de Kooning's late colours and forms: dementia, creativity, and the healing power of art**

Carlos Hugo Espinel

Epi: de Kooning's amnesia began in his early 70s when he was already recognised as a major exponent of abstract expressionism—a style that had elevated the USA to a leading position in the art world.5 He forgot people's names and recent events. In conversations, he replaced his failures with protracted silences, or covered up his confusion with small lies and with wisecracks, reminiscent of his famously clever humour.4-6 Sometimes he burst into rage at the realisation of losing the cognitive quality that allowed him to learn, to communicate, to create. His amnesia was typically anterograde, for he remembered details of his training in Rotterdam, his illegal immigration to the USA as a youth, his jobs as a house-painter, and the developing struggles of his art in New York.4-6 His work floundering, the number of paintings diminishing, by his mid 70s he had finally stopped. Alcohol, prescription drugs, and depression were the companions of his solitude.2-4

**de Kooning's art**

In four decades, de Kooning's art had travelled from concreteness to the abstract. He distanced himself from realism*9 and went on to pursue the unknown. His art began modestly in the 1930s with advertising drawings and portraits of easily recognisable subjects (figure 2). By the 1950s, it had moved on to a deforming phase of dislocated, open-legged, sneering women, painfully imprisoned in a chaos of dissonant multicoloured brush strokes (figure 3). Then with thick paint layers, wide brush strokes of flesh pinks, sky blues, and night blacks, and abrasive scraping of the canvas, stroke-by-stroke eliminating recognisable forms, his art became a pure statement of emotion (figure 4). This was the art of a man who had severed his roots, who had lived in the city, and who had experienced an era of wars, human holocaust, and atomic annihilation.

**de Kooning's cognitive disorder**

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**de Kooning's quest was the invention of a new art form and use of colour,**10,11 an art that could touch any one of us, irrespective of age, race, beliefs, socioeconomic conditions, pain, and personal conflicts. Only the abstract could realise this goal. But to achieve the abstract is one of the most ambitious and difficult of human tasks. It requires a clear perception of form, an understanding of what we believe and feel, and an intelligent generalisation of all psychological domains. How did de Kooning achieve it?
de Kooning borrowed techniques from the old masters, and forms and colours from Picasso, Soutine, Matisse, Mondrian, and Gorky, and he mixed them with his own glimpses of the sea, the sky, New York, the discarded jetsam of our civilisation, and human shades and shapes. Armed with his brush, he let his right hand express his unconscious as it roamed over the canvas with random uninhibited gestures. He even allowed accidental shapes and splashes, smears, and drippings of paint to join the action of his art.1,5 His work was a synthesis not only of perception, memory, reasoning, but of all his cognitive and psychological components. Thus emerged his abstract expressions, his eminently contemporary art.

de Kooning’s treatment

de Kooning’s dementia probably had several aetiologies—arteriosclerosis, alcoholism, Korsakoff’s syndrome, uncertain nutrition from years of self-neglect, prescription drugs, depression, and Alzheimer’s disease.2-5 His prognosis was dismal. The art world mourned the loss of one of the greatest painters of this century.11 Yet 1 or 2 years later, de Kooning’s new art filled museums and exhibition halls. It was an exuberant, carefree art, full of life. At the easel, he was all action. Whereas a painting used to take up to 1½ years to complete (eg, Woman I, figure 3), now it took only weeks.14 If in 1980 he completed only three paintings, from 1981 to 1986 he finished 254. His technique had evolved, perhaps improved.11 Light backgrounds and bold primary colours and sinuous forms dazzled us all. Brush strokes moved rhythmically, and shapes danced freely. He painted abstract forms, and whatever we see—birds fluttering, ribbons and balloons floating, or human beings dancing—we are rewarded with our own interpretation (figure 1). Now de Kooning is in touch with each of us. The great master, with what is to become the disease of our times,11 was recovering his self.

de Kooning’s treatment involved the cooperative effort of his wife, Elaine, and a group of friends.5 They provided the propitious environment. He withdrew from alcohol; he began to eat a balanced diet and exercised daily; and he regained strength. He returned to his brushes and paints. He prepared his canvases, meticulously sanding the surfaces. He mixed colours. He mastered his fear of drawing. He could begin again. His rehabilitation technique was unique. He borrowed colours and forms from his own work. He scattered his early masterpieces about his studio, consulted their photographs, and projected their images onto the empty canvases. Like a beginner, he copied and retraced images. Then he let himself go. He let his hand freely wander, labouring for hours until a new image was born. He faced the canvas. And starting at the right upper quadrant, migrating to specific colours, rotating, adjusting the massive 2·2×2·0 m canvas on a specially designed electrically propelled easel, he was discovering free, moving, abstract forms. Implicitly he was encouraging us to move before his work, to tilt our heads, to make our own discoveries, to be part of his art. Thus, de Kooning reached a new realm in 20th century art.4,5,11

de Kooning’s recovery

Stopping the alcohol, improving nutrition, and assuring rest and sleep,14 and treating secondary causes such as hypothyroidism and vitamin deficiencies, may improve reversible components of dementia.14 Memory aids, writing of names, listing of chores, and surrounding patients with familiar objects, help them to find their
bearings and occasionally to communicate intelligently with us. Warm compassionate care, such as de Kooning received, can elicit a smile, a twinkle of understanding. But de Kooning’s outcome is surprising, especially when we remember that dementia is associated with brain parenchymal damage—in Alzheimer’s disease with neurofibrillary tangles and senile plaques that are incurable.

To understand de Kooning’s response, I suggest that, rather than merely trying to accommodate symptoms to a diagnosis of Alzheimer’s disease, we should examine his art—for us physicians without an effective treatment—an enlightening house call.

In science, the creative mind finds the association among alternative observations that results in a general, abstract law. In his art, de Kooning might have travelled a similar path, in choosing from among the infinite number of possible lines, curves, shapes, and colours, the combination that accomplished not only the abstract, but also the highest aesthetic value. He had to be able to perceive, recall images, and decide each detail, and, in each brush stroke, select the correct colour, swirl, thickness, touch, and shadow. These paintings are, therefore, not merely the product of someone who had simply retained colour perception and the motor strength to copy. And even if at times he confused his wife with his sister, his brush strokes are not the weaving, thinning squiggles that betray a weakening mind. de Kooning went on to create. His resurgence is a testimony to the potential of the human mind, evidence for hope.

de Kooning’s recovery raises many questions. What was the nature of his cognitive disorder? If dementia, what was its type and stage? How did his depression and various aetiologies interact? Did he regain only his art? Had he acquired, through years of practice, a procedural memory and aesthetic value that improved with age and survived insult? And there is a question that transcends neuroscience, brain, and behaviour: how does creativity, a pre-eminently human function, depend upon and adapt to biological and environmental influences, to age, and to disease?

What part did art itself, in precisely its abstract form, play in de Kooning’s recovery? In the search for a cure, we usually approach the brain with psychotherapy, pharmacological agents, and, lately, tissue transplants. Yet, the brain works with and through sensory pathways. It was colours and forms that, in the struggle for the restoration of his self, travelled along de Kooning’s sensory pathways. “I paint to live”, de Kooning said. Do colours and forms heal?

de Kooning’s recovery suggests art as an aid for the understanding of dementia, and art as a discipline for the study of the mind.

References