

2010-9-14 15:23:51

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NEWS****Vision and art**

by Tony Realini, M.D.*Ophthalmic heritage symposium examines the intersections of ophthalmology and art*

Oscar Wilde famously paraphrased Ovid when he said, "Life imitates art far more than art imitates life." The mutual influence of life and art on one another inspired a group of art and vision experts to explore the intersections of the worlds of art and vision at the November 2008 annual meeting of the American Academy of Ophthalmology in Atlanta.

Michael F. Marmor, M.D., professor of ophthalmology, Stanford University School of Medicine, Palo Alto, Calif., and James Ravin, M.D., Toledo, Ohio, surveyed the works of many great artists to reveal what Dr. Marmor called "the implications of blindness for the artist."

Many well-known artists suffered from visually debilitating ocular diseases, said Dr. Ravin, and in many cases, the progression of their visual declines are manifested in their art.

**"Happy Birdsong" by Allan Eddy****Source: Allan Eddy****Monet's cataracts**

"Cataracts and cataract surgery were impactful for a number of well-known artists," said Dr. Ravin. The French impressionist Claude Monet is a good example. "Monet had bilateral cataracts, with visual acuity of 20/200 in one eye and light perception in the fellow eye. Essentially he was legally blind."

Cataracts are known to cause a variety of insults to vision, including both blur and alteration of color perception. "Monet's problem with cataracts was related more to color than to black and white," said Dr. Marmor. "Based on the changes we observe in his art during the period when we know he was suffering from cataracts, we can presume that he had chronic, age-related nuclear sclerotic cataracts of a disabling severity."

To illustrate his point, Dr. Marmor pointed to Monet's paintings, both of his house and rose garden at Giverny, France. Some are dominated by blues, while others are dominated by yellows, reds, and browns. While not certain, it is thought that Monet painted these before his ultimate unilateral cataract surgery.

Monet himself described his pre-op vision in this way: "I no longer perceived colors with the same intensity. Reds appeared muddy to me, pinks insipid." This is consistent with the blue-blocking effect of yellowing nuclear sclerotic cataracts.

In the works that he completed in the year before his ultimate cataract surgery, colors and forms continued to degrade.

"Was he painting what we see or painting what he saw? Was he trying to paint by memory?" asked Dr. Marmor. "We don't know. But we do

know that after his cataract surgery, he returned to painting in a style more like that of his earlier works.”

Monet doctor-shopped his way across Europe, consulting with at least seven prominent ophthalmologists of the time before consenting to surgery in the worse eye. He underwent an extracapsular cataract extraction in 1923, followed a few months later by a posterior capsulectomy, said Dr. Ravin.

“He found the postoperative period unpleasant—supine positioning, his head held into position with sandbags—and so he refused to have the second eye done.” This was despite a superb visual result: his light perception vision improved to 20/30 with aphakic correction (+10.00 +4.00 x 90).

Degas and macular degeneration

Edgar Degas was not so lucky. “Degas experienced a progressive, irreversible loss of vision in both eyes attributable to macular degeneration,” said Dr. Ravin. This may have been a hereditary form of the disease rather than the more common age-related form, as it afflicted him while in his 30s.

As his vision declined, his renditions of his favorite subjects—dancing girls and women in the bath—also changed. “They were still beautiful depictions of form and position,” said Dr. Marmor, “but now lacking the details that characterized his early works.”

Dr. Marmor observed that the personal artistic style of the artist determines the extent to which visual impairment affects his or her art. “Degas’ main visual symptom was probably blur,” he said. He illustrated his observation with Degas’ paintings of bathing women, but painted at different stages of his macular disease. In earlier works, lines are cleaner and more fine, while in later works, the lines are rougher and more coarse.

“His blurred vision smoothed over the relative roughness of his later works,” said Dr. Marmor. “They probably did not look so rough to him.” As his vision continued to decline, Degas chose to keep creating art, but he switched media and focused on pastels and sculpture. In similar fashion, the American artist Georgia O’Keefe eventually gave up painting when blinded by age-related macular degeneration.

A modern artist’s plight

“Artists will find a way,” said Allan Eddy, artist, Atlanta. “These artists never gave up.” Mr. Eddy understands their drive to create. He was already a successful professional artist when a bout of meningitis blinded him several years ago. Originally a painter, he too switched to more tactile sculpture after losing his sight. But he has serendipitously rediscovered painting since then.

“I have a tiny crescent-shaped spot of peripheral vision in one eye and no depth perception,” he explained.

With no central vision, he was unable to perform the typical brushstrokes used in painting, as he could not see the brush. “Also, the brushes are very delicate with soft bristles,” he said. Lacking depth perception and with little tactile feedback, when the brush touched the canvas, he found himself making splotches on the canvas rather than brushstrokes. His eureka moment arrived: he could create his artistic images using dots.

“I—and you should pardon the pun—stumbled into pointillism. The dots are small enough to fit into my field of vision,” he said. He is now painting again, using confluences of dots to create his vividly-colored abstract canvases.

Dr. Marmor reflected on the impact of blindness on an artist. "Should blindness make an artist stop? Blind artists may paint, like any other artist, to fulfill an aesthetic vision; but they may also paint to prove a point or to show the experience of blindness. Blind artists and those who view their work see the world in different ways. We are all blind in some respects; we rarely understand all that an artist intended."

Editors' note: *Drs. Marmor and Ravin have no financial interests related to their comments. Mr. Eddy is an artist, but has no financial interests related to his comments.*

Contact information

Eddy: allan@allaneddy.com

Marmor: marmor@stanford.edu

Ravin: james.ravin@tlcoh.com, 419-882-2020

