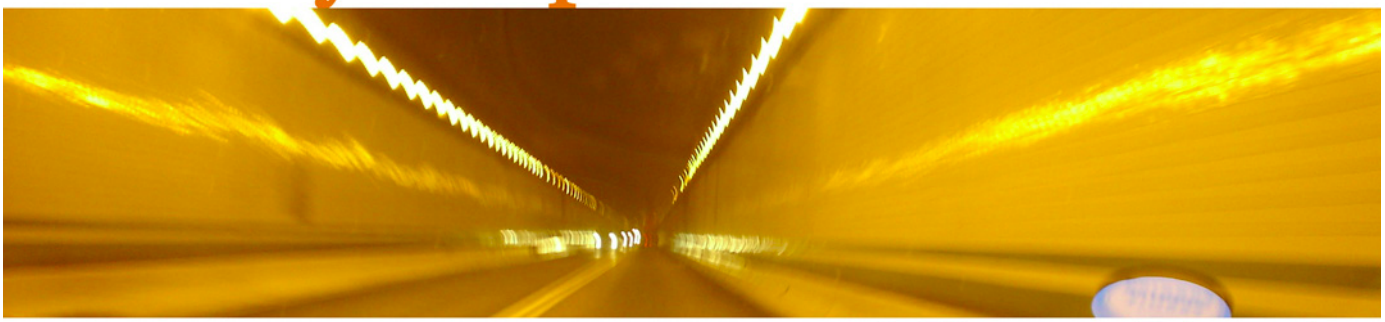
Bartleby Snopes



A Literary Magazine

Magnification

by F. C. Brown Cloud

Andy's favorite artist was Georgia O'Keeffe long before she understood the sex. At first she saw simply tiny things—flowers, bones, shells—made big. Each canvas a magnifying glass. I never noticed this, Andy thought. I never noticed that.

A secret world existed that she'd walked obliviously by. Flowers! Andy was eight. She began to search for it, the secret world around her.

Like the dog at her best friend's house. Andy stared one day she was invited over to play. Between its hind legs was something wetly shiny, skinned-knee pink. The protuberance inched slowly out and in, tentative worm considering her. Was something wrong with the dog, she asked? No, is all that Sarah's mother said.

Mysteries upon mysteries, there.

Her sophomore year of college, Andy declared a major in biology. I'm interested in the secret world, she said. That's nice, replied her advisor, not looking up. He slid her now-signed letter of intent across his desk. You might try volunteering in a lab, he added, to learn what biology really is.

Soon, Andy stood beside a professor. They were training a planarian to navigate a y-shaped plastic maze. The eyes atop the creature's head appeared decidedly uncurious. It swam forward, stopped, waited, then made a choice. Still gazing stupidly upward, it swam to the left.

The planarian received a shock. The professor had pressed a button. Soon, he whispered to Andy, you will control the punishments. The planarian had stopped. Slowly, it began to move again. Still to the left. Another press of the button, another jolt of electricity through the worm. It stopped again. Reconsidered. Turned back, swam to the right.

Each day, Andy returned to the laboratory. The room smelled sickly sweet from denatured ethanol. The countertops were immaculate black. The beige floor gleamed, waxed linoleum. The professor sat silently in his office until she came. His office was at the far end of the laboratory. He was always reading a magazine. Sometimes Science. Sometimes Nature. Sometimes Worm Runners Digest. He smiled when he saw Andy arrive. He would set the magazine aside and announce, Let us see what our pupils have retained.

The professor strode into his research space; Andy followed a step behind. Near the window was a fish tank for growing algae. The tank was lively with darting guppies. And guppies, it seemed, harbored bacteria. Those could not be seen. But they were there; the bacteria provided nitrogen for the algae. And algae grew prodigiously, slowly turning the water green.

Next to the fish tank was a second aquarium that appeared to hold only water. The second aquarium was for daphnia. Occasionally greenish water would be poured through a sieve from the first tank into the second. The professor did this twice before it became another of Andy's duties in the lab.

When poured, the plume of algae-rich water would turn the second aquarium faintly green. Then it would become clear again as daphnia ate the algae. The daphnia were specks that bloomed into manatee-esque crustaceans with probing antennae and beating hearts when viewed through the compound microscope. Andy would press her face into the eyepiece until plastic squeezed painfully against her cheekbones. As daphnia swam through the field she tried to recapture the wonder of standing before an enormous colorful canvas.

Through the eyepiece the daphnia were certainly big. But their outlines appeared brownish grey, their innards made transparent by the microscope's glaring light.

Daphnia were raised to feed the worms. Planarians, a few dozen split between four Pyrex casserole trays. The professor occasionally purchased fish food which, through a series of transfers, would feed first fish, then bacteria, then algae, then daphnia, then planarians. The planarians fed nothing. As far as Andy knew.

Now watch, the professor said. He removed a planarian from the tray labeled TRAINED and a second planarian from the tray labeled UNTRAINED. The untrained worm was dropped into a small bowl of water. Their pupil, who had endured many shocks to learn the correct route through the maze, received the knife. A razor blade pressed through the worm's flat body, over and over again by the professor. Soon each unblinking eye was in a separate piece. Andy, watching, felt sick.

Each piece, the professor told her, could become a new worm. Its fragments contain blueprints for the whole. Andy felt slightly better. She hadn't realized the professor wanted to make more worms.

He didn't. He fed the pieces to the untrained worm lazing in the bowl.

We can't do the experiment today, he told her. A well-fed worm is a sluggish worm. Come back tomorrow.

Walking home, Andy did not stop to peer in the grass. She often did, to watch insects living underfoot. But on that day she did not want to know who was eating whom.

Other students crossed her path. She met their eyes, wondering what each had seen. Did they have memories that made them ill?

The next day, the professor plucked the cannibal from its bowl and moved it to the maze. Now watch, he said. Andy watched. The planarian swam forward, reached the joint, stopped. A moment passed. The professor held his breath. Andy's finger hovered above the button. But the planarian swam to the right. It did not need a shock.

Physiological transfer of memory, the professor said.

Then Andy sat in his office, her legs parallel together, her ankles intertwined, one shoe pressed into the floor. She smoothed her skirt with her hands. It always fascinates me when it works, the professor said. Knowing that it cannot be real. The idea seemed reasonable at first. When we thought memories were stored in discrete objects. Chemicals. Ribonucleic acids, to be specific. We now know this is not true. Memory comes from linkages between objects. The network of connectivity between each synapse. Our experiment was akin to you handing me not your diary, but cut-up slips of paper with a few words each, and expecting me to understand your life.

Andy nodded, unsure why they had sacrificed the worm. She had to ask. The professor leaned back in his chair, stroking his trim beard. Perhaps you are right, he mused. Perhaps we should have saved one piece of our original. Then could we truly say it died? Each piece can grow into another. An identical copy. They reproduce that way. Planarians reproduce two ways, in fact. The professor leaned forward, fixing her with his gaze. Andy shifted her weight, scooting backward with a twist of her hips.

Planarians, he told her, are hermaphroditic. When they mate, each has two roles. Instead of venerable professor or eager student, a planarian will be both.

And he said more. As though Andy had not understood.

Of course, he said, we humans have our inventiveness. Though nature slots us into roles, imagination lets us transcend. For an hour, perhaps, you might lead. I might be the weaker.

Andy exhaled softly. Then stood, silently, smoothed her skirt again, and turned to leave. He said her name. She walked unresponsive through his lab. Some mysteries, it seemed, she would have to investigate on her own. Biology, she now felt, was not the way.

BIO: F. C. Brown Cloud is a scientist and writer from Bloomington, Indiana. When not writing, he is most likely caring for his young daughter or running with the local high school cross country team. He is currently seeking representation for his first novel, and his previous publications include fiction, nonfiction, and research articles (links and more at fcbrowncloud.com).
