Reflections

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Fifty Million Monkey Selfies

I have been a professional writer all my adult life. Professional writers are people who write stories, novels, books of various kinds, even essays like this one, with the intention of finding someone who will pay them for publishing them. And after having had their work published, it is their hope to go on selling all those pieces of written matter over and over again, in one market and another—a short story to a magazine first, let's say, and then to an anthology of stories, and then to be included in a collection of the writer's own stories, and then, perhaps, sold or at least optioned by a movie company or a television program. For this purpose it is important that writers retain exclusive ownership of whatever they have created, so that others will not cause their work to be distributed competitively. Society has generally believed that protecting a writer's ownership of material is a good thing, and thus the concept of copyright has come into being.

I doubt that any copyright laws protected the tale of Gilgamesh, or Homer's poem about the Trojan War, and so it was possible for any bard who could learn the text to go into business declaiming the tale, never mind Homer's prior right to the thing. But eventually it became clear that writers' lives were generally not easy ones and it was best to allow them a monopoly on the publication of their own work, at least for a time. Great Britain, in 1842, enacted a law giving writers copyright in their work for the duration of their lives plus seven years, and gradually the term of copyright was extended for several generations beyond that. The United States had passed its own Federal copyright law in 1790, building on various statutes of the individual states and granting writers exclusivity in their work for fourteen years, with the option of a fourteen-year renewal. Of course various procedures had to be observed, forms to be filled out, fees to be paid, et cetera. But if one jumped through all the proper hoops, one got to own what one had written for a reasonable span of time. (In one's own country, that is. A British copyright did not protect one in the United States in the nineteenth century, and vice versa, and since both countries spoke approximately the same language, that caused problems until a universal copyright law governing most nations—not all; the Soviet Union never signed it, for example—was agreed upon.) Infringement of a writer's copyright was a serious matter that could bring expensive fines, and though it happened, it did not happen often.

When I set up shop as a professional writer in 1955, while I was still an undergraduate at Columbia, American copyright law gave me twenty-eight years of protection, with a twenty-eight-year renewal option available. Since then the law has been amended several times, and the current copyright law gives my work protection so far beyond my lifespan and that of my heirs that I no longer bother to think about it. Renewals are no longer needed. My books and stories are safe from piracy, if not for the ages, then in any case long enough to keep my heirs solvent.

Then, however, came the problem of competition from monkeys.

There are plenty of actual human beings who write science fiction today. In 1965, when I helped to found the Science Fiction Writers of America, we had, I think, seventy-two charter members. Now there are at least thirteen hundred, all of whom meet the (somewhat relaxed) current criteria of professionalism. The monthly output of science fiction in the United States alone is greater than was seen in whole decades when I began my career. The books I wrote over the past sixty-plus years have to fight their way against all that competition, and so far they still hold their own. But—if monkeys get into the act too—?

A couple of years ago a photographer named David Slater left his camera unattended while doing some natural-history shots in a nature preserve in Indonesia. In the hope of getting close-up photographs of a group of monkeys, he set his camera up with a wide-angle lens and backed away while the monkeys sniffed around the camera and, after about half an hour of playing with the camera gear, a sneaky little macaque monkey named Naruta touched off the camera trigger and took a few selfies, which were of sufficient quality that Slater had them published. He had them copyrighted in his own name; it probably never occurred to him to do anything else.

Enter the group known as People for the Ethical Treatment of Animals (PETA), a controversial and aggressive animal-rights organization that is usually concerned with such serious matters as vivisection and other forms of cruelty to animals. PETA felt that Naruta's rights were being abused, and took Slater to court, claiming that the copyright should have been registered in Naruta's name.

The U.S. Copyright Office had already ruled, in 2014, that "only works created by a human can be copyrighted under United States law, which excludes photographs and artwork created by animals or by machines without human intervention." Accordingly, Judge William Orrick of the U.S. District Court for Northern California dismissed the case. PETA, undaunted, went on to the Ninth Circuit of Appeals, where Judge N. Randy Smith called the PETA suit "frivolous," and said, "The concept of expanding actual property rights—and rights broadly—to animals necessitates resolving what duties also come with those rights, and, because animals cannot communicate in our language, who stands in their shoes."

It's an interesting question. I can't communicate in Latvian or Amharic or Telugu, and I don't know what I would do if someone violated a copyright of mine in one of those languages. Perhaps it has already happened. The chances are I wouldn't bother to do anything (in fact just yesterday a friend told me he had discovered a Mongolian edition of one of my stories and is sending me a copy. I don't plan to sue). But there is no doubt that that Mongolian publisher had no right to use my work without my permission. Judge Smith, though, saw things differently in Naruta's case.

Federal courts, he said, had no jurisdiction over lawsuits supposedly filed by an animal. Once more the suit was thrown out of court. PETA appealed yet again, and eventually a three-judge panel ruled against the photographically inclined critter, with Judge Carlos Bea declaring, "We conclude that this monkey—and all animals, since they are not human—lacks statutory standing under the Copyright Act." There the matter seems to have ended, and so much for PETA's attempt to get David Slater to pay up for his infringement of Naruta's rights.

Imagine my relief.

It's not that I worry about competition from photographers, no matter of which species. I am no Ansel Adams, or even a Diane Arbus, and I am not in the business of offering photographs for sale, so I was untroubled by the possibility that Naruta's work would cut into my income. It's only human science fiction writers whose work vies in the marketplace with my own.

But the Naruta lawsuit reminded me in an uncomfortable way of the Fifty Million Monkeys problem. Bad enough to compete against the thirteen hundred other members of the Science Fiction Writers of America; I would not care to have to cope with the fully copyrighted output of all those millions of small hairy primates.

What I'm talking about is a notion that goes back at least to 1913, when a French mathematician named Emile Borel suggested that if a million monkeys were set to work typing ten hours a day, it was at least statistically probable that they would produce a sequence of letters exactly duplicating actual books. The physicist Arthur Eddington amplified Borel's idea in *The Nature of the Physical World* (1928), in which he wrote, "If I let my fingers wander idly over the keys of a typewriter it might happen

that my screed made an intelligible sentence. If an army of monkeys were strumming on typewriters they might write all the books in the British Museum. The chance of their doing so is decidedly more favorable than the chance of the molecules returning to one half of the vessel." Other writers speculated that a sufficient quantity of monkeys, typing long enough, might in the fullness of time bang out the complete works of Shakespeare or the Encyclopedia Britannica. That concept was picked up in science fiction with a story called "Fifty Million Monkeys," by a middling-good writer named Raymond F. Jones, that appeared in the October 1943 issue of *Astounding Science Fiction*. It isn't any great shakes as a story, being pulpy and implausible in various ways. But it does cite Eddington's monkeys, without giving him credit, and declares, "Suppose that random semantic combinations could be made at terrific speed. A mountain of useless gibberish would be produced, but what might be found among it that made sense?" And the scientists of the story avert world catastrophe by setting five hundred "electrowriters" to work pounding keys continuously and at random until a solution to the story's problem comes forth.

The Jones story is all but forgotten, but its catchy title has stayed with us, and other science fiction writers over the years have made use of his Fifty Million Monkeys idea. In the real world nobody has that many monkeys available for such tasks, but we do have computers that can be programmed to churn out near-infinite gigabytes of gibberish that might contain something publishable. U.S. copyright law protects me against unfair competition from machines, and even from plants. But the Naruta case had me worried. What if PETA had succeeded in overturning that 2014 ruling and given the little beast his copyright? Would the Science Fiction Writers of America be overwhelmed by applications for membership by those fifty million monkeys? I feel that I have had a narrow escape.