

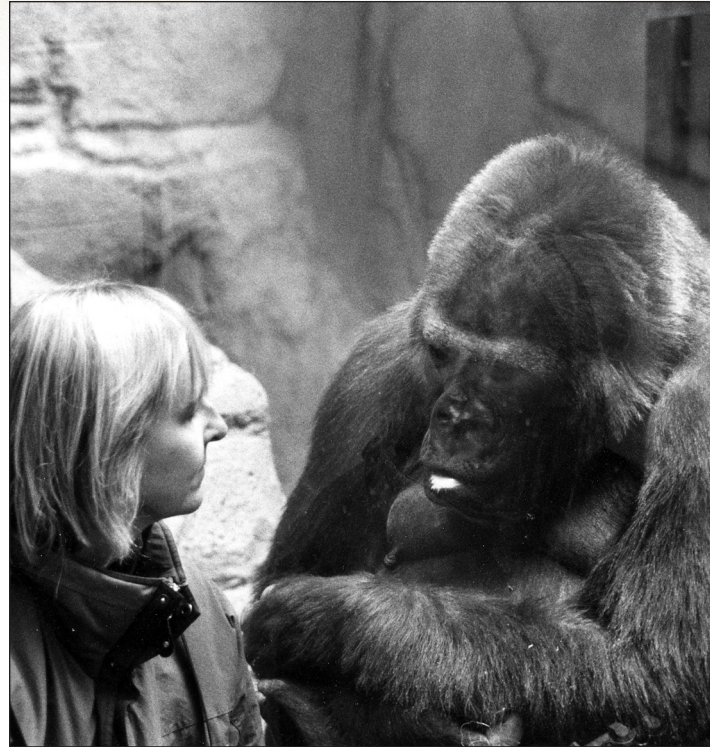
H

airs are extensions of specialized cells in the outer skin layer that some of us spend enormous amounts of time washing, drying, curling, straightening, styling, coloring, plucking, and shaving. Yet, compared to other mammals, we humans appear relatively hairless. Appearances are deceiving—we actually have as many hair follicles per square inch of skin as a chimpanzee. The chimp's hairs, however, are longer, thicker, and darker than ours.

All of the 5 million hair follicles of an adult human form during the fifth month of prenatal development, coating the fetus with a downy layer called lanugo. In most newborns, the lanugo has receded beneath the skin surface, perhaps leaving a bit of fuzziness on the ear tips or elsewhere. Persistence of this early hair accounts for much of the difference in hairiness between us and other primates. In a very rare inherited condition in humans called hypertrichosis, some of the lanugo remains and grows long. In less enlightened times, people with severe cases were exhibited in circuses as ape-men or werewolves.

In other mammals, hair provides warmth. It is absent in aquatic mammals such as whales and manatees, and reduced in their semi-aquatic cousins, such as hippos, presumably because a furry coat would impair swimming. What advantages might lighter coats have afforded our ancestors that can explain why this almost uniquely human trait has persisted?

One theory maintains that less hair enabled us to successfully conquer grasslands. Furry, four-footed animals can run fast for a short time, and then slow down due to heating up. With hair dense only atop the head, protecting against sunburn, two-footed humans could run for longer times, enabling them to hunt. The lack of hair enabled our sweat glands to efficiently cool the body. Our hair has also persisted in places where our individual scents cling, which is essential for reproduction and



We have about the same density of hair follicles as our nearest relatives, the chimps and other great apes, but many of our hair follicles remain beneath the surface of our skin after birth. Hence, the great difference in hairiness between this human and her gorilla friend.

offspring-parent bonding. Yet another explanation for our less hairy appearance is the “parasite-reduction hypothesis”: Fur entraps fleas, lice, and ticks, which spread infectious disease. Shed the fur, and we shed the parasites. ■