

Where Does The Chimpanzee Go From Here?

By John Steiner

Thinking about a recent study demonstrating that chimps actually have better short term memory than humans had me wandering forward a few million years. It struck me that, given the behavior of chimps today, and that their mode of walking is a derived trait not ancestral I figured it could be possible that should they outlive our species the future looks bright for them.

Lions aren't going to be around forever. Even if we don't wipe them out every species has its expiration date. Crociliads and sharks haven't even hit middle age in evolutionary terms, but for mammals the game's a wee bit higher paced. Something's gotta fill the void. Based on several factors evolutionary change has been coming to chimps at a higher rate than in for our own species. And they're off to a great start.

Chimpanzee hunts are successful 50% of the time; a rate higher than lions who score only 33% if working together and 25% for lone females. Male lions suck ass at hunting, because they don't have the same running endurance and are slightly slower in a sprint due to their build.

While it's true lions hunt tougher game than any chimp has to tag, the transition to an open plains stalker/runner hunting species isn't that far out of a chimp's reach. As mentioned above, chimpanzee locomotion is derived as a mean to allow terrestrial movement while still permitting fingers dexterous enough for arboreal living.

So tweak that.

Say the dexterous fingers switch tasks. Lions need claws to grip prey [those claws aren't meant for killing, even if they occasionally end up doing that]. But chimps can grip without that. The one snag is that they walk on the second finger joint, which renders them more susceptible to injury than animals with a more solid and stable walking appendage. A transition to running on fists [as I once brought up with the potential human quadruped] would be more suitable. As for the chimpanzee foot? That's still plantigrade [heel-to-toe contact sequence], and there's no clear sign of that changing at present. However, the same was true of an extinct species ancestor to canines and bears. The canine descendants eventually lifted their heels and doubled their speed.

Other changes would be a gradual alteration of the teeth. Incisors will shift, with the inner most upper pair no longer being so broad and plate-like. This primarily to avoid breaking in frequent bites and, later in their evolution, to add holding power as short hooks. The canines are halfway there, requiring only that lock-fit alignment seen in the zoological order Carnivora. One full set of molars [two upper and two lower] would have to change from the grinding surface to sheering for an emphasis on meat over plant matter. This most likely will occur in the molars than the premolars, because the molars are closer to the back of the jaw, offering superior force via leverage. Lengthen the maxilla and mandible bones and extend cranial planes from the skull for increased muscle attachment, such as the sagittal plane as in gorillas, and the jaw power increases tremendously.

Now to hunt in a savanna requires different coloration than chimps currently have. To run as speed requires something chimps ditched a long time ago. A tail, that counterbalance weight and momentum. So no tuft of fur at the end of a lion-like tail, however the same tawny yellow might well originate from the jet black of chimp hair, just as humans developed varying hair

color. if the male dominance of Pan troglodytes continues they could eventually see enough sexual dimorphism that the full glory of a mane. However, it's hard to imagine if the females will take over the hunting role so the males can fill mercenary/jigalo role male lions occupy now.

As for that absent tail, it's still possible for an animal to be fast without it, but turning's a bitch so they run in straight sprints. Given the intelligence of chimps I don't see that as a problem. And they may compensate with changes in the hands and feet. That weird thumb on their foot might well serve as a braking mechanism, and by improving traction also could give the sprinter's turning pivot without bleeding off lethal velocity. However, to catch prey means to first find it.

Chimps have the same problem humans do the sensory department. While their sense of smell is three times better than ours, that's as much to do with the fact they use it more than most people. Were humans subjected to the same lifestyle our nose would sharpen up to chimp specs. However, both fall utterly short of the more keen smell of predatory cats, who themselves aren't the best sniffers among carnivores. Here again a good brain can compensate, as it has in hominids. The following of footprints and spotting signs of recent passage of that elusive next meal.

Alterations in eyesight would come more easily. While it's unlikely to see chimps evolve a double retina found in cats, they could eventually develop pigments allowing widened into the infrared spectra, and entirely different changes that offer greater collection of poor light. The nighttime prowler whose eyes gleam in the starlight could very well become our increasingly distant relative.

Hearing also has a way to go before any ape can hope to compare with most predators, and with improvements in sensitivity come changes in the inner and outer structure of the ear itself. They won't move to being atop the head, since that requires decreasing the upper portion of the skull, but the ability to point their ears isn't unimaginable. They might even be somewhat pointed dependent on how their position affects what parabolic or conic shapes best take in sound.

The one alternative sense that might enhance to offset a lacking of the above is touch. Chimpanzees could their fingers or heels to pick up ground tremors of large herds or the hard pounding footfalls of an individual. There's been times when I felt through my heels when someone else was walking through the house. Also, I knew when the bathroom window was opened without looking, based on the resistance to movement I felt on my fingertips when closing the door. Up the concentrations of tactile nerve endings wouldn't take long in evolutionary terms.

In a Discovery Channel documentary, *The Future Is Wild* they depicted the dim fate of the last primate species within ten million years, however I say nature's not done with our thumbed relatives. They've got a wide array of natural selection roads to take toward greater contrasts than the variety of niches primates hold today. The baboon seems like the more lion-like species than chimps do, but they eat far less meat and aren't being pressed as hard onto the verge of extinction as chimpanzees and the other apes. Gorillas most likely will improve their herbivore traits, possibly to end up on the chimpanzee menu in this far flung future, though they'll resort to thinking their way out of trouble when their littler cousins cruise around lookin' for an easy mark.

I figure this might take up to ten million years to see the full gradation of chimpanzee into lionzee, but what a sight that'd be!

At present bonobos and chimps aren't that different from each other by appearance, but based on their lifestyles I expect this to change quickly. Unlike their more burly sibling species, *Pan paniscus* are matriarchal and geared more towards sex than violence [the hippie apes who make fuck not kill]. The major driving force that'll further differentiate them from chimps is what's referred to as "sexual selection" where the choice of mates influences evolutionary change. And with all that wild'n'crazy sex the raw magnitude of "stimulation" should push changes to the brain and nervous system to new heights.

Now the male's gotta do something or be something for a female to take interest. Being just as much the tool user as chimps, bonobos might go the route of bower birds. Every male becomes an artist and every female an art critic. If the guy shows enough panache the lady might decide to stay the night at his highly decorated pad. I figure this the more likely scenario than for bonobo males to develop physical colorations meant for attracting mates due to the emphasis on behavior for their survival. To be the best decorator could demonstrate the male's resourcefulness and food gather efficiency high enough to offer spare time for leisure activities.

A plausible explanation for why anatomically modern humans developed greater mental faculties and suddenly took to making objects with less emphasis on functionality, such as shells and beads some 70,000 years ago. This isn't to say bonobos would necessarily follow our road to advanced civilization or leaving thumb baring footprints on the moon, but the construction of shelters from woven grass and sticks generously decorated with colorful flowers and other bright ornaments from nature is very likely.

By the time lionzee appears a future zoologist would be hard pressed to see the resemblance of their little brothers and sisters, the Bower Bonobos.

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