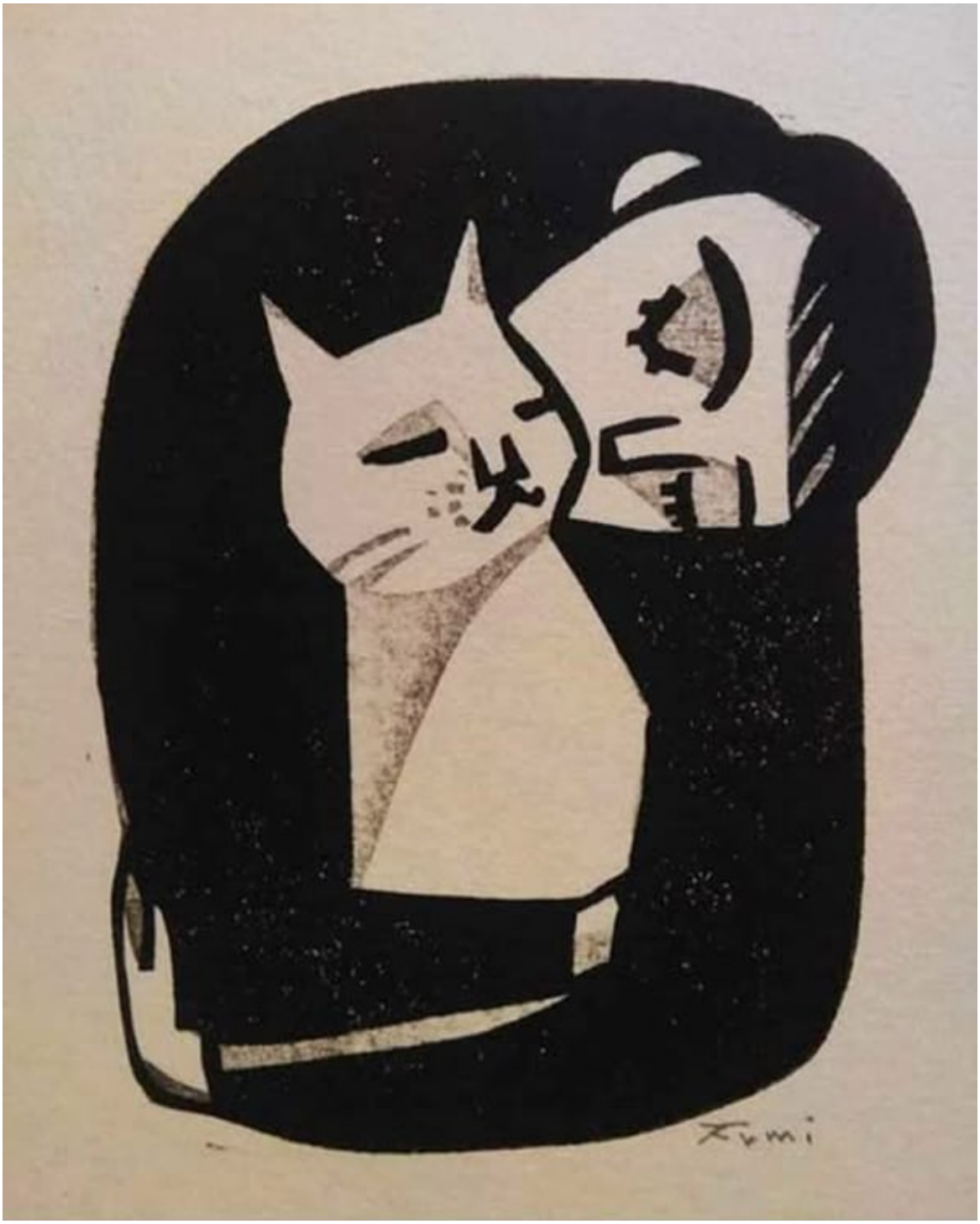
# The Human in Mammals, the Mammal in Humans

**by Armando Simón (January 2025)**




Untitled Woodblock Print (Fumi Yanagimoto)

**For centuries, thinkers have pondered** on what differentiates humans from animals. Plato defined Man as a featherless biped. Hearing this, Diogenes of Sinope plucked the feathers off a chicken and threw it over the wall of Plato's Academy, whereupon Plato added "with broad, flat nails." In the 20th century, suggestions about what made humans unique were that that Man used tools, or that he had language, or that he had an opposable thumb and/or that he had a large brain. At one point, my personal belief that what made humans unique is that they constructed complex dwellings, but von Frisch disillusioned me.

In 2017, I presented a paper at the Florida Academy of Sciences titled *The Importance of Being a Mammal* (a nod to Oscar Wilde). In it, I put forth certain propositions: A) there are a number of behaviors which, taken together, are unique to mammals; specific behaviors are indeed present in certain other species, *but the cluster of behaviors, together*, were only present in mammals B) this confirmed Konrad Lorenz's idea that behaviors were as legitimate for taxonomy as physical traits C) while some of the behaviors, such as play, had been examined by ethologists and comparative psychologists, others had been overlooked if not ignored and, therefore, research needed to focus on these neglected behaviors.

The Mammalian Factor, as I named it, is composed of these behaviors:

**Play**. Of all the behaviors relevant here, perhaps the most documented one is that of play behavior between members of the same species (conspecifics).

When one species initiates play with a member of a different species (like foxes with dogs, dogs with deer), however, the latter often appears confused or apprehensive possibly because

the play behavior of the initiator is not the same as the play behavior of the differing species (one cetacean was filmed pulling a snorkeler by her leg deeper down into the water with its mouth. Although it could have easily crushed her leg into a shapeless pulp, it did not do so, then let her go and pushed her to the surface. This could have been an instance of play and it may be that the cetacean realized that the human was stressed). Occasionally, however, this confusion dissipates, and play ensues. Dolphins have been observed playing with whales, pinnipeds and humans. An undomesticated wild polar bear has been filmed playing with dogs, which visits them annually, truly remarkable when one considers the polar desert environment is scarce of food.

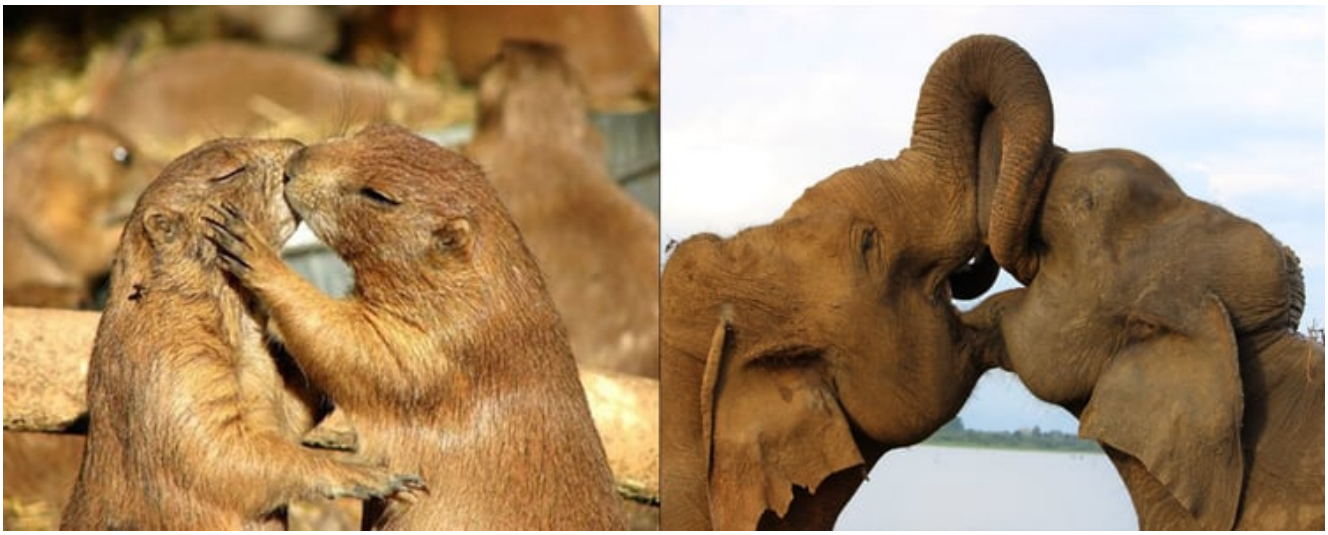
**Dreams.** Mammals dream. Anyone who has had a mammalian pet has recognized the facial characteristics of REM sleep, as their eyes, paws, ears twitch with occasional vocalization. Much research has verified the presence of dreaming (as determined by the presence of REM) in mammals. Rats, humans, cats, dogs, primates, cattle, cetaceans (possibly), platypus, moles, sloths, giraffes, opossums have been shown to have REM sleep. Some birds have also been shown to have REM sleep, but it appears to be negligible.

**Killing prey before devouring it**. Amphibians, reptiles, fish, birds and insects, unless they use poison or constriction, will routinely capture and eat prey while they are still alive (e.g., snakes that capture frogs, praying mantises that capture insects). Carnivorous mammals, on the other hand, usually kill prey before eating it if the prey is smaller than them, the exception being insectivorous mammals.

**Kissing.** Mammals kiss each other. It appears to be a manifestation of bonding between two individuals and can be occasionally seen between mammals of two totally different species which have bonded. In nonprimate species such as cats and cattle, the kissing at times involves one organism licking the face of the other organism, whereas in elephants it is

trunk-to-mouth, and with primates it involves the pursing of lips and both apes' lips coming together, similar to what humans do when kissing. It is particularly interesting to note that, whether in animals or humans, whenever kissing takes place, they often close their eyes. It should be noted that kissing is done to the face and not to the torso, the legs or tail. Also, when bipeds kiss, one will often hold the head of the other.

Reptiles, fish and amphibians do not kiss.



**Hygiene.** Some mammals practice rudimentary hygienic behavior after they defecate, albeit they exhibit different behaviors when doing so. Horses and cows lift their tails when they defecate. Dogs wipe their hind feet after defecating. Chimpanzees use leaves as toilet paper. Domestic cats defecate, then turn around and attempt to bury the feces with their front paws; this behavior is attempted even when there is nothing to bury the feces with, as when they defecate in a flat, solid, surface. Approximately once a week, arboreal sloths descend from the trees where they have been living, whereupon they will defecate and then bury the feces, at which time they resume their arboreal existence, which hygienic

behavior makes them highly vulnerable to predators.

Observation of reptiles, insects, fish, amphibians, echinoderms, or crustaceans after defecating show no unusual behavior vis a vis the feces, although some birds lift their tails to defecate and some remove scat from their nests. The usual behavior is simply to ignore the feces. On the other hand, I have observed several fish species (groupers, foxheads, yellow tangs, puffer fish, damsel fish) turn around immediately after defecating, ingesting the feces then spitting it out, repeating this behavior two to four times before finally ignoring the feces.

**Tickling.** Tickling has been recorded in just a few mammalian species, to wit, humans, rats, and some apes. It remains to be seen through research how widespread tickling is among other mammals since what research there is has been scarce; it may be widespread or it may be limited to a handful of species. However, care must be employed in misinterpreting grooming and simple scratching as tickling.

**Interspecies bonding**. There are instances when mammalian species will bond with other species. This has been the subject of much amusement to people for centuries. Furthermore, whereas some species will bond with humans, humans will oftentimes bond with other species. Ask any cat lady. It is particularly interesting when one animal is a predator and the other one is prey, as is the case in one instance when a leopard and a cow seem to have bonded. As in the case of interspecies play, an absolute prerequisite for interspecies bonding (and interspecies epimeletic behavior) is that the predator not be starving.

Although interspecies bonding does not appear to exist in reptiles, insects, echinoderms, fish, amphibians, or most birds, a few species of birds do exhibit interspecies bonding through imprinting if occurring immediately upon hatching.

**Vocalization**. Mammals share with avians this trait, which is that vocalization is vital for many, if not most, of the mammalian species. Vocalization is used for locating conspecifics, for territoriality, imparting information, for expressing emotions and for self-identification. Although some species of insects and amphibians vocalize for the same purpose, the vocalization is confined only to specific species during mating season, whereas vocalization (and its importance) is evident throughout mammals and throughout the year.

**Empathy**. There have been many instances in the wild of helping behavior many of which have, fortunately, been recorded as they occurred, both with conspecifics (apes and elephants, and eight genera of toothed whales, for instance), and inter-species.

The inter-species instances are particularly fascinating. Hippopotami, for instance, are one of the most aggressive and deadly of African animals, killing inoffensive animals crossing their path. And yet, there are filmed instances of their assisting other species which were stuck in water, struggling to get out, by pushing them up with their head and depositing them on dry land. Another recorded instance of inter-species aid occurred in a zoo, wherein a child fell down upon an ape enclosure; an ape approached the child, picked the child up and took it to the other side of the enclosure where the zookeeper was. Another recorded instance involved a rhino helping a zebra foal out of a mud pit. Another involved a bear in a zoo lifting out a crow that was floundering in a pool of water. Recently a toddler was lost in the woods for two nights in very cold weather; when asked how he kept warm he responded that a bear was his friend; *it may not have been his imagination*. A man accidentally dropped a camera into the water while he was filming a beluga whale; the beluga picked it up from the ocean floor and returned it to him.

One particular instance of inter-species aid has not been

officially recorded as of yet, but numerous anecdotes over the centuries have persisted. This involves dolphins aiding drowning sailors by keeping them above water. Considering that there have been recorded instances of dolphins doing the same to other injured, or even dead, dolphins, there may be some truth to it, particularly since there has been documentation of epimeletic behavior towards other species of cetaceans.

However, some behaviors may be misinterpreted as aid. For example, a predator that does not kill a juvenile potential prey but, instead, takes it away may not be protecting it, but may simply be taking it to its own offsprings so that they can learn how to kill prey. Another distinction is that in communal insects such as ants, bees, termites and wasps, guarding the hive when it is under attack is different than coming to the aid of an individual organism.

Likewise, in one instance, a hawk attacked a chicken, but before it could kill the chicken a goat ran over and attacked the hawk, saving the chicken. Similarly, a hawk attacked a rabbit, but a deer ran over and repeatedly mangled the hawk as the rabbit fled. In these two instances, interpretation of these behaviors prevents conclusion; are the "rescuing" animals helping another animal, or are they attacking because of territoriality?

**Fairness.** Morality, or if one prefers, ethics, did not occur in humans through spontaneous generation. Logically, it must have had precedents. A surprising finding by ethologists over the years has been the discovery that some mammals, such as monkeys and apes, show a rudimentary sense of fairness and inequity aversion. For example, if two mammals do the same task, but one is rewarded with a favorite food and the other with a less valued food, the latter animal will show distress and/or not do the task again.

Some studies have also been carried out with dogs, vampire bats and humans. A distinction appears that for the species to

demonstrate inequity aversion, it should be a species that is normally gregarious and cooperative.

**Personality.** Individual mammals have personalities. Anyone who owns several mammals of the same species will attest that, like human children, each individual behaved different from its conspecifics even though they were in the same environment and were exposed to the same stimuli.

On many occasions both researchers and laymen have remarked that their animals have behavioral idiosyncrasies: dogs, cats, wolves, cetaceans, apes, pigs, horses, elephants, etc. Sometimes personality has been the subject of research, usually from an evolutionary/adaptationist viewpoint.

In regards to household pets, it has become a cliché that the owners of these animals will speak of their pets as almost human in their behaviors and as being family members. For the first time in my life, I began to consider the possibility of reincarnation to our cat, who I felt behaved like a human child. An anecdote: her keen hearing would detect my wife driving up to the driveway from work. Flower would stop whatever she was doing—eating, napping, being petted—to go to the door, sit down and stare motionless at the door for minutes, sometimes patiently for a long time. When my wife finally opened the door, Flower would utter just one "miaow" ("hello"?) and turn right around and go back to whatever she had been doing. On one occasion when my wife stubbed her toe and laid down on the floor whimpering, our cat rushed over and peered at her face; later to test this, she repeated the whimpering, and the cat came over again to look at her face. There were many other idiosyncratic behaviors.

The present writer has never come across a crab, snake, amphibian, or fish appearing to have a personality. In fact, it is highly significant that most pets for people are mammals and feel very emotionally attached to those animals as opposed to crustaceans, insects, or reptiles.

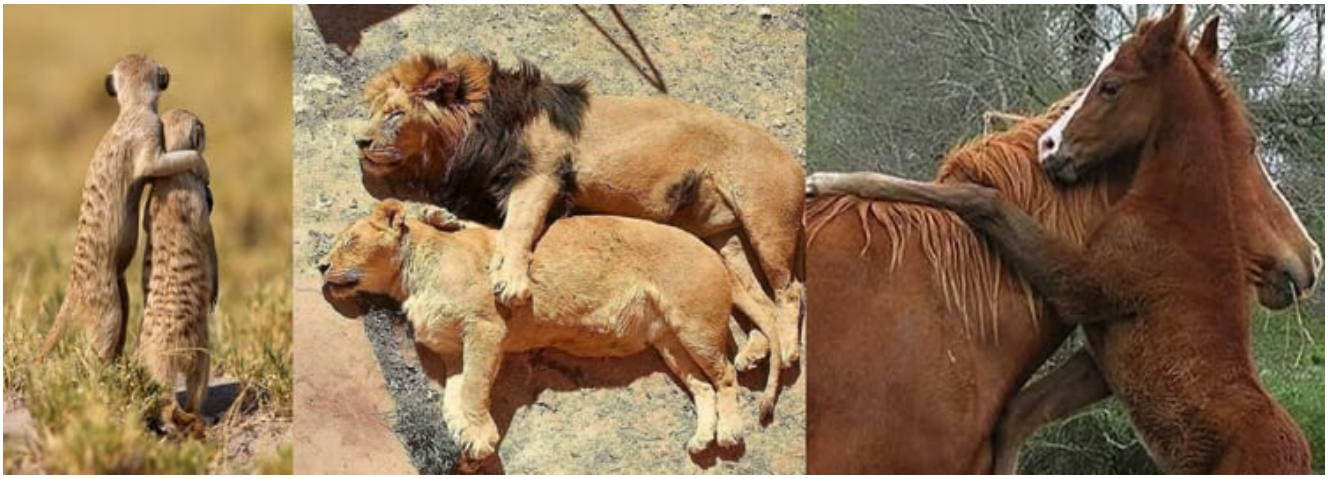
**Thanatos reaction**. As with several categories above, this behavior is based on opportunistic observations and has a dearth of formal study in vertebrates, something which has been noted by others. Nonetheless, it appears that, whereas other animals may lack a reaction when observing the corpse of a conspecific, some mammals react with stress. The documented, anecdotal, instances of dogs mourning for the death of their owners, or of a conspecific, are many. Some of the chimpanzee mothers have been observed carrying the corpses of their offspring, and some cetaceans have tried to keep their dead offspring afloat and have kept vigil over a dead peer. There has also been a documented instance of a cat meticulously burying its dead kitten, and another of a cat kneading an unresponsive dead conspecific. Of particular interest are the accounts of elephants coming across the bones of a previously familiar elephant and carefully examining those bones; there is even tentative evidence that some of the elephants "bury" dead conspecifics (covering the dead body with dirt and vegetation), or apparently "mourning" (an anthropomorphic word) the death of an infant. One of the avenues of formal research in the future is to ascertain if the same type of behaviors is observed in both solitary and social mammals.

On the other hand, there are also recorded instances of cannibalism of dead conspecifics.

**The need to touch and be touched**. In mammals, particular those living in groups like herds, packs, pods, etc., such as bottlenose dolphins, chimpanzees, baboons, sperm whales, touch appears to be very important and occurs often. Sometimes, it appears as if an individual will request touching from another, and, it also appears that an animal that appears to be experiencing the emotions of fear, agitation, or anger, will calm down if touched by others, whether it is a slight touch, or more intently such as hugging in primates. Human infants who sleep with their parent may fall asleep on one side of the bed but while they sleep they rotate their bodies

until one of their extremities comes into contact with the parent, whereupon they cease movement. Adult humans who sleep alone will often hug a large pillow.

In experimental situations wherein rhesus monkeys experienced touching early on, but were later deprived, they appeared stressed while isolated, while rhesus monkeys that were permanently reared without ever being touched by a conspecific exhibited permanent maladaptive behavioral aberrations.



**Conclusion.**

I believe that what makes mankind unique is that it is a mammal—only more so. Humans are hypermammals. That is, that the mammalian characteristics seem amplified in human beings. In a sense, this echoes Darwin's supposition in *The Descent of Man* that humans differ mentally from animals in a matter of degree rather than of kind. As Boniolo points out, it is only logical that human behavior is a result of evolution from ancestors.

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**Armando Simón** is a retired psychologist and author of *When Evolution Stops* and *The U*.

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