What are we?

Many would describe mankind as a divine creation. In fact, many modern biologists refuse to surrender the notion of a soul and some sort of connection to a higher power. We shall soon see that there exists no rational reason to cling to such notions.

We will examine mankind as what he really is: nature's only dual purpose replicating machine. There are many commonly cited differences between man and most other mammals. Among these are opposable thumbs, a relative lack of protective fur, bipedal locomotion, and females who are receptive to sex without regard to their current state of fertility. There are lots of other differences. For example, compared to other placental mammals, humans are born relatively premature and helpless. On the African plains a newborn gazelle is able to stand within minutes and very shortly run quickly enough to evade many predators. Young predators do not need to be able to run so quickly. So we see offspring that are relatively less developed at birth. Kittens are routinely left by their mothers for hours at a time. However, newborn humans could not survive alone in the wilds for even a few hours. Like kittens, newborn humans are completely dependent on their mothers for food and protection. Unlike kittens, newborn humans are unable to generate sufficient heat to maintain body temperature. Consequently, the newborn human is also dependent on its mother for supplemental heat except under the most favorable environmental conditions. These are all significant differences between *homo sapiens* and other placental mammals. However there is another far more significant difference.

The most significant difference between *homo sapiens* and other animals is the thing which we experience as culture. *Homo sapiens* is a copying machine for DNA that describes *homo sapiens* and a copying machine for complex behaviors – a dual purpose copying machine.

We experience those complex behaviors as language and culture in general.

In the previous chapter we briefly examined some of the parts of a feline and how those parts contributed to the ultimate feline function of replicating feline DNA. The feline brain comes preprogrammed with a bunch of useful reactions to stimuli – evidently encoded in the structure of the feline brain – a structure in turn encoded and described by feline DNA. In contrast, the human brain comes with comparatively little programming. The human brain can recognize human faces from very soon after birth. This appears to be preprogrammed along with a few other useful behaviors such as withdrawing from the perception of depth – as might be found at the edge of a high table.

There is at least one more bit of slick programming built into the infant brain – a propensity for mimicking other humans. At first the mimicry is limited to a few sounds. As the infant grows, she or he will acquire language through mimicking adults. Later this drive to mimic or copy interesting behavior will result in the adoption of any number of teen fashion trends. And thus culture is transmitted from one generation to the next.

If one tries to extrapolate backwards through time from humankind as it exists today and at the same time forward from humankind's nearest known relatives, where do the two paths meet? The most obvious conclusion is that the two paths meet in a primate able to copy complex and useful behaviors. This primate would have been very good at identifying and copying useful behaviors such as the manufacture and use of "primitive" tools, control of fire, and the preparation and use of animal skins for warmth.

The world changed markedly after DNA first described such a primate. This new primate with the general purpose brain would prove very adaptable. In general, other species exist in areas to which they were best adapted. The areas inhabited by a particular species can usually be accurately described in geographic terms. The adaptable culture-copying primate would defy geographic boundaries. As the evolution of the new culture-copying primate continued, it would occupy virtually every biome on every major land mass except Antarctica. The evidence shows that as the new primate continued to evolve, it literally ate some species into extinction, while displacing and exploiting others. Ten thousand years ago this primate and the animals under its control comprised about one tenth of one percent of terrestrial vertebrate biomass. Today that same primate and the animals under its control - such as pets and livestock - comprise about ninety-eight percent of the terrestrial vertebrate biomass.

Early humans are implicated in the extinction of many species – starting centuries ago. Examples are *smilodon populator*, also known as the "sabre-toothed cat", *megatherium* (Giant Ground Sloth), and even *mamuthus primigenius* (wooly mammoth). Natural changes to the global climate may have played a role in some of these extinctions, but the evidence makes it fairly clear that the appetite of early man was at least a major factor if not the primary factor in each extinction. That pattern continues to this very day. Perhaps we have not evolved so much further as we would like to think.