

CULTURE

Just as DNA is our genetic code for life, culture is our mental code for living. It is the strategy we use to cope with the natural and social worlds we inhabit. Because we are born into a culture, we often take it for granted and think of it as "natural." Culture is not biologically determined—it is learned from our social group. If a baby is born of American parents, but is taken to Japan and raised by a Japanese family, the child will grow up speaking Japanese and learning the cultural patterns of Japan.

There are hundreds of definitions of the word "culture." Most anthropologists agree that it includes "behavior that is learned, characteristic of a group of people." But it is more than that; it is a set of mechanisms for our survival. During the last 2.5 million years of human evolution, the role of culture gradually increased in importance. Today humans have an extraordinary dependence on culture, a system of cognitive, social, economic, and technologic components.

Until recently, we thought that culture was only practiced by humans, but now we know that chimpanzees have behaviors they learn and pass on to their offspring. For example, two different groups of West African chimpanzees each use a different method for cracking nuts. One group uses a rock, the other uses a branch. Their offspring learn by watching the adults and carry on the traditions.

When hominids and apes split 6-7 million years ago, the early hominids undoubtedly used tools of some sort—possibly wood,

bone, and fiber. However, we have no record of tools made from perishable materials. In addition, if they used stones without altering them, we would not be able to distinguish them from natural rocks. When stone working began, over 2.5 million years ago, we begin to find examples of "culture" in East Africa. These early stone tools have flakes removed from one edge to make a chopping tool; they are called Oldowan tools for the site at Olduvai Gorge.

These tools have been found at other East African sites: Koobi Fora, Kadanu Gona (Hadar), Lake Baringo, Omo, and Lokalelei (West Turkana).

Culture and biology have interacted throughout our evolution so we can say we are a product of biocultural evolution. For example, toolmaking increased in complexity as brain size and cognitive abilities increased. The neural pathways in the brain reorganized, and more efficient communication, social learning, and stone tools developed. It was a "feedback" loop of culture and biology. Natural selection chose the hominids with the most intelligence because they would be best able to cope with the environment, to survive, and to reproduce. Their genetic blueprint was inherited by their offspring, just as their cultural blueprint was learned by them.

A professor of anthropology used to illustrate his "biology vs. culture" lecture by having his students all spit in their hands. "That's biology," he said. Then he instructed the class: "Now, lick it back up." "Gross!" they said. "No way!" "That's culture," he said.



Replica of part
of a spearthrower
Bison licking its flank
Reindeer antler
La Madeleine Cave, France
Age: about 15,000 years



LANGUAGE

All modern languages share a common ancestral language, but no one knows when or how language began. Some scientists think it came after a genetic mutation "rewired" the brain. Others think it grew from increased social contact or communications between mothers and infants. No matter how it started, language brought on a cultural explosion.

Once a complex language was in use, humans could elaborate on societies, enhance cooperation with others, create oral traditions, and explain new ways of making tools. Along with language, humans started using symbols, as seen in cave art, carvings, and jewelry. Today, complex spoken language is one of the few traits that sets humans apart from other primates.

Demat
Breton

Zdravei
Bulgarian

Nei ho
Cantonese

Hola
Catalan

Sgên
Cayuga

O-Si-yo
Cherokee

Ni hao
Chinese

Haku
Chumash

Dydh da
Cornish

Tanisi
Cree

Alo
Creole

Zdravo
Croatian

Nazdar
Czech

Goddag
Danish

Goede dag
Dutch

Hello
English

Saluton
Esperanto

Tere
Estonian

Sa'llam
Farsi

Ni sa bula
Fijian

Päivää
Finnish

Bonjour
French

Goeie
Frisian

Dia dhuit
Gaelic

Olá
Galician

Gamarjobat
Georgian

Guten Tag
German

Kalimera
Greek

Hello
Gujarati

Aloha
Hawaiian

Shalom
Hebrew

Namasté