

“Gathering and Hunting: Humans Share Resources” from the Human Drama by Jean Elliot Johnson and Donald James Johnson, 2000

How Did Humans Survive?

Culture, particularly language, helped human beings survive. As women nursed their infants, they experimented with ways to communicate with their babies, and perhaps language developed from these early efforts. The earliest tools were probably used in caring for children and gathering food. A sling of bark to hold a baby was perhaps the first human invention, and containers for food were also among the earliest tools. Both men and women probably used sticks or pieces of stone to dig up roots. In addition, women had to pound or scrape many plants before humans could digest them, and they may have invented tools for these purposes as well.

At first, the meat people ate came from animals that had died or other animals had killed. Men probably concentrated on finding dead animals. As they learned to communicate and cooperate and/or as game became scarcer, men most likely traveled further to hunt and spent a lot of time hunting, even though the meat they brought back probably accounted for very little of the diet.

Gradually men and women performed different roles, especially when men traveled long distances to hunt. They developed ways to transport animals they had scavenged and later created weapons for catching and killing live animals. Women concentrated on gathering nearby roots, plants, nuts, and grains, caring for children and the elderly, and maintaining the home base.

Our early ancestors began to use fire, an extremely important technological advance, about 5,000 years ago. Lightning or spontaneous combustion provided this very important source of protection and warmth long before early humans could produce it themselves, and early people may have considered fire a sacred gift from the gods. Since they could not produce fire, they must have carefully preserved and guarded fires they found. As men wandered off to scavenge and later hunt for meat, women must have guarded the hearth and kept the valuable fire burning. (Millennia later, women were still guarding the sacred flames in temples.)

Fire gave warmth and it could keep large animals away as well as drive them out of caves. Fire allowed women to cook food, softening it for toothless elders and small children. Women figured out how to use fire to preserve foods and make some otherwise poisonous plants safe and edible.

The ill and the old found a safe haven at the home base. When human bands were constantly on the move, a sprained ankle or fever could prove fatal. Once bands established home bases, they could better care for one another, and, judging from the number of very ancient healing goddesses, perhaps women created the first medicines from herbs and plants. Women probably also devised ways to ease child birth and determined which plants were effective laxatives or heart stimulants.

Excerpt from “Noble or Savage” in *The Economist*, December 19, 2007

Take a snapshot of the old world 15,000 years ago. Except for bits of Siberia, it was full of a new and clever kind of people who had originated in Africa and had colonised first their own continent, then Asia, Australia and Europe, and were on the brink of populating the Americas. They had spear throwers, boats, needles, adzes, nets. They painted pictures, decorated their bodies and believed in spirits. They traded foods, shells, raw materials and ideas. They sang songs, told stories and prepared herbal medicines.

They were “hunter-gatherers”. On the whole the men hunted and the women gathered: a sexual division of labour is still universal among non-farming people and was probably not shared by their *Homo erectus* predecessors. This enabled them to eat both meat and vegetables, a clever trick because it combines quality with reliability.

The first farmers were less healthy than the hunter-gatherers had been in their heyday. Aside from their shorter stature, they had more skeletal wear and tear from the hard work, their teeth rotted more, they were short of protein and vitamins and they caught diseases from domesticated animals: measles from cattle, flu from ducks, plague from rats and worms from using their own excrement as fertiliser.

They also got a bad attack of inequality for the first time. Hunter-gatherers' dependence on sharing each other's hunting and gathering luck makes them remarkably egalitarian. A successful farmer, however, can afford to buy the labour of others, and that makes him more successful still, until eventually—especially in an irrigated river valley, where he controls the water—he can become an emperor imposing his despotic whim upon subjects. Friedrich Engels was probably right to identify agriculture with a loss of political innocence.

Agriculture also stands accused of exacerbating sexual inequality. In many peasant farming communities, men make women do much of the hard work. Among hunter-gathering folk, men usually bring fewer calories than women, and have a tiresome tendency to prefer catching big and infrequent prey so they can show off, rather than small and frequent catches that do not rot before they are eaten. But the men do at least contribute.

Recently, though, anthropologists have subtly revised the view that the invention of agriculture was a fall from grace. They have found the serpent in hunter-gatherer Eden, the savage in the noble savage. Maybe it was not an 80,000-year camping holiday after all.

In 2006 two Indian fishermen, in a drunken sleep aboard their little boat, drifted over the reef and fetched up on the shore of North Sentinel Island. They were promptly killed by the inhabitants. Their bodies are still there: the helicopter that went to collect them was driven away by a hail of arrows and spears. The Sentinelese do not welcome trespassers. Only very occasionally have they been lured down to the beach of their tiny island home by gifts of coconuts and only once or twice have they taken these gifts without sending a shower of arrows in return.

Several archaeologists and anthropologists now argue that violence was much more pervasive in hunter-gatherer society than in more recent eras. From the !Kung in the Kalahari to the Inuit in the Arctic and the aborigines in Australia, two-thirds of

modern hunter-gatherers are in a state of almost constant tribal warfare, and nearly 90% go to war at least once a year. War is a big word for dawn raids, skirmishes and lots of posturing, but death rates are high—usually around 25-30% of adult males die from homicide. The warfare death rate of 0.5% of the population per year that Lawrence Keeley of the University of Illinois calculates as typical of hunter-gatherer societies would equate to 2 billion people dying during the 20th century.

At first, anthropologists were inclined to think this a modern pathology. But it is increasingly looking as if it is the natural state. Richard Wrangham of Harvard University says that chimpanzees and human beings are the only animals in which males engage in cooperative and systematic homicidal raids. The death rate is similar in the two species. Steven LeBlanc, also of Harvard, says Rousseauian wishful thinking has led academics to overlook evidence of constant violence.

Not so many women as men die in warfare, it is true. But that is because they are often the object of the fighting. To be abducted as a sexual prize was almost certainly a common female fate in hunter-gatherer society. Forget the Garden of Eden; think Mad Max.

Constant warfare was necessary to keep population density down to one person per square mile. Farmers can live at 100 times that density. Hunter-gatherers may have been so lithe and healthy because the weak were dead. The invention of agriculture and the advent of settled society merely swapped high mortality for high morbidity, allowing people some relief from chronic warfare so they could at least grind out an existence, rather than being ground out of existence altogether.

According to LeBlanc all was not well in ecological terms, either. *Homo sapiens* wrought havoc on many ecosystems as *Homo erectus* had not. There is no longer much doubt that people were the cause of the extinction of the megafauna in North America 11,000 years ago and Australia 30,000 years before that. The mammoths and giant kangaroos never stood a chance against co-ordinated ambush with stone-tipped spears and relentless pursuit by endurance runners.”

What are hunter-gatherers of recent times generally like?

Based on the ethnographic data and cross-cultural comparisons, it is widely accepted that recent hunter-gatherer societies

- are fully or semi-nomadic.
- live in small communities.
- have low population densities.
- do not have specialized political officials.
- have little wealth differentiation.
- are economically specialized only by age and gender .
- usually divide labor by gender, with women gathering wild plants and men fishing and almost always doing the hunting.

Are hunter-gatherers more peaceful than food producers?

Some cross-cultural findings contradict each other, inviting further investigation:

It is widely agreed that, compared to food producers, hunter-gatherers fight less (Ember & Ember, 1997). But are hunter-gatherers typically peaceful? Different researchers have arrived at different answers to this question. For example, Ember (1978) reported that most hunter-gatherers engaged in warfare at least every two years. Another study found that warfare was rare or absent among most hunter-gatherers (Lenski & Lenski, 1978; reported in Nolan, 2003).

Hunter-gatherer cultures differ from food-producing cultures in childrearing practices and vocalization. Food-producing cultures are more vulnerable to famines and food shortages.

How we define terms will affect the sample and determine the outcome of a cross-cultural study. When asking if hunter-gatherers are typically peaceful, for example, researchers will get different results depending upon what they mean by peaceful, how they define hunter-gatherers, and whether they have excluded societies forced to stop fighting by colonial powers or national governments.

Most researchers contrast war and peace. If the researcher views peace as the absence of war, then the answer to whether hunter-gatherers are more peaceful than food producers depends on the definition of war. Anthropologists agree that war in smaller-scale societies needs to be defined differently from war in nation-states that have armed forces and large numbers of casualties. Also, within-community or purely individual acts of violence are nearly always distinguished from warfare. However, there is controversy about what to call different types of socially organized violence between communities. For example, Fry (2006: 88, 172-174) does not consider feuding between communities warfare.

Source Information

Carol R. Ember. 2014. "Hunter-Gatherers (Foragers)" in C. R. Ember, *Explaining Human Culture*. Human Relations Area Files, <http://hraf.yale.edu/hunter-gatherers-foragers>, accessed August 21, 2015.

The Wisdom of Hunter-Gatherers

by Peter Gray, Ph.D

For hundreds of thousands of years, up until the time when agriculture was invented (a mere 10,000 years ago), we were all hunter-gatherers. Our human instincts, including all of the instinctive means by which we learn, came about in the context of that way of life. And so it is natural to ask: How do hunter-gatherer children learn what they need to know to become effective adults within their culture?

...To supplement what we could find in the anthropological literature, several years ago Jonathan Ogas (then a graduate student) and I contacted a number of anthropologists who had lived among hunter-gatherers and asked them to respond to a written questionnaire about their observations of children's lives. Nine such scholars kindly responded to our questionnaire. Among them, they had studied six different hunter-gatherer cultures - three in Africa, one in Malaysia, one in the Philippines, and one in New Guinea.

What I learned from my reading and our questionnaire was startling for its consistency from culture...

1. Hunter-gatherer children must learn an enormous amount to become successful adults.

It would be a mistake to think that education is not a big issue for hunter-gatherers because they don't have to learn much. In fact, they have to learn an enormous amount.

To become effective hunters, boys must learn the habits of the two or three hundred different species of mammals and birds that the band hunts; must know how to track such game using the slightest clues; must be able to craft perfectly the tools of hunting, such as bows and arrows, blowguns and darts, snares or nets; and must be extraordinarily skilled at using those tools.

To become effective gatherers, girls must learn which of the countless varieties of roots, tubers, nuts, seeds, fruits, and greens in their area are edible and nutritious, when and where to find them, how to dig them (in the case of roots and tubers), how to extract the edible portions efficiently (in the case of grains, nuts, and certain plant fibers), and in some cases how to process them to make them edible or increase their nutritional value. These abilities include physical skills, honed by years of practice, as well as the capacity to remember, use, add to, and modify an enormous store of culturally shared verbal knowledge about the food materials.

In addition, hunter-gatherer children must learn how to navigate their huge foraging territory, build huts, make fires, cook, fend off predators, predict weather changes, treat wounds and diseases, assist births, care for infants, maintain harmony within their group, negotiate with neighboring groups, tell stories, make music, and engage in various dances and rituals of their culture. Since there is little specialization beyond that of men as hunters and women as gatherers, each person must acquire a large fraction of the total knowledge and skills of the culture.

2. The children learn all this without being taught.

Although hunter-gatherer children must learn an enormous amount, hunter-gatherers have nothing like school. Adults do not establish a curriculum, or attempt to motivate children to

learn, or give lessons, or monitor children's progress. When asked how children learn what they need to know, hunter-gatherer adults invariably answer with words that mean essentially: "They teach themselves through their observations, play, and exploration." Occasionally an adult might offer a word of advice or demonstrate how to do something better, such as how to shape an arrowhead, but such help is given only when the child clearly desires it. Adults do not initiate, direct, or interfere with children's activities. Adults do not show any evidence of worry about their children's education; millennia of experience have proven to them that children are experts at educating themselves.¹

3. The children are afforded enormous amounts of time to play and explore.

In response to our question about how much time children had for play, the anthropologists we surveyed were unanimous in indicating that the hunter-gatherer children they observed were free to play most if not all of the day, every day. Typical responses are the following:

- "[Batek] children were free to play nearly all the time; no one expected children to do serious work until they were in their late teens." (Karen Endicott.)
- "Both girls and boys [among the Nharo] had almost all day every day free to play." (Alan Barnard.)
- "[Efé] boys were free to play nearly all the time until age 15-17; for girls most of the day, in between a few errands and some babysitting, was spent in play." (Robert Bailey.)
- "[!Kung] children played from dawn to dusk." (Nancy Howell.)

4. Children observe adults' activities and incorporate those activities into their play.

Hunter-gatherer children are never isolated from adult activities. They observe directly all that occurs in camp - the preparations to move, the building of huts, the making and mending of tools and other artifacts, the food preparation and cooking, the nursing and care of infants, the precautions taken against predators and diseases, the gossip and discussions, the arguments and politics, the dances and festivities. They sometimes accompany adults on food gathering trips, and by age 10 or so, boys sometimes accompany men on hunting trips.

The children not only observe all of these activities, but they also incorporate them into their play, and through that play they become skilled at the activities. As they grow older, their play turns gradually into the real thing. There is no sharp division between playful participation and real participation in the valued activities of the group.

¹ See, for example, Y. Gosso et al. (2005), "Play in hunter-gatherer societies." In A. D. Pellegrini & P. K. Smith (Eds.), *The Nature of Play: Great Apes and Humans*. New York: Guilford.

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