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WAR
IN HUMAN CIVILIZATION
AZAR GAT
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To my family
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# Contents

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Preface: The Riddle of War

This is an ambitious book. It sets out to find the answers to the most fundamental questions relating to the ‘riddle of war’. Why do people engage in the deadly and destructive activity of fighting? Is it rooted in human nature or is it a late cultural invention? Have people always engaged in fighting or did they start to do so only with the advent of agriculture, the state, and civilization? How were these, and later, major developments in human history affected by war and, in turn, how did they affect war? Under what conditions, if at all, can war be eliminated, and is it declining at present?

These questions are not new and have seemingly resisted conclusive answers to the point that both questions and answers appear almost as clichés. In reality, however, they have very rarely been subjected to rigorous comprehensive investigation and, indeed, have largely been regarded as being too ‘big’ for serious scholarly treatment. With war being connected to everything else and everything else being connected to war, explaining war and tracing its development in relation to human development in general almost amount to a theory and history of everything. As so much is relevant to the subject, one is required to read pretty much ‘everything’ and become sufficiently expert in many fields. These are the prerequisites that it has been necessary to meet to produce this book.

Indeed, in pursuing the subject of war the book draws on information and insights from a wide range of scholarly disciplines and branches of knowledge, most notably: animal behaviour (ethology), evolutionary theory, evolutionary psychology, anthropology, archaeology, history, historical sociology, and political science. Separated from each other by disciplinary walls, they all too often remain self-contained and oblivious of, if not downright hostile to, the other’s methods, perspectives, and bodies of knowledge. Each discipline has its particular subject matter, choice methods for studying it, a set of dominating research questions, and, not least, distinctive terminology, historical development, and fashionable concerns. Together, all these constitute a disciplinary ‘culture’ and set the criteria for each discipline’s ‘standard research’—assimilated through professional training—which defines what constitutes good questions, acceptable answers, and a
Preface

legitimate scholarly pursuit. In consequence, not unlike the different cultures, societies, and states dealt with in this book, different disciplines habitually find the others alien, their language quirky, and their scholarly agenda misconstrued. Even when dealing with related subjects, they find it difficult to communicate or to make the others’ work relevant to their own interests. One might even say that, particularly when dealing with related subjects, mutual scepticism, disdain, and even derision often prevail between disciplines—some of which is justified, because disciplines tend to be stronger on their special pursuits and weaker on others. Thus scholars in the humanities and social sciences have long been trained to believe that biology and human biology are practically irrelevant to their subjects. Historians are typically horrified by social scientists’ careless treatment of the particularities of each time and place and by their often crude modelling, whereas the latter, for their part, believe that historians are so immersed in reconstructing the minutiae of particular periods and societies as to be professionally incapable of seeing any broader and more general picture.

The broad interdisciplinary perspective that guides this book is intended to create a whole that is larger than the sum of its parts, because the book is not a survey of existing knowledge, or merely a synthesis, let alone a textbook, but is designed as a fully fledged research book throughout. As much as it builds on and enormously profits from the wealth of scholarly literature in the various disciplines, the book takes issue with many extant studies and theses on almost every point with which it deals. As with the proverbial forest and trees, a broad and interdisciplinary perspective has the potential to generate significant new insights that may all too often be missed by, and be of benefit to, specialized scholars working on their particular turfs. Obviously, for such an undertaking to be scholarly sound nor can the forest be substituted for the trees, and everything must be firmly grounded in existing research and fact. To ensure that the work offered here meets the most rigorous standards and that its fruit reaches the various scholarly communities concerned, I made a point of publishing themes from it in article form in scholarly journals of the relevant disciplines. For the errors that have inevitably still found their way into this book I hope to be excused.

It should be stressed, however, that even though this book is primarily a scholarly enterprise, it is written with an eye to the general reader. As much as possible, the more technical points, which are of greater interest to scholars, have been included in the endnotes, which the reader can choose
whether or not to follow. Most of all, the book is an invitation to participate in an intellectual adventure. Reading for and writing it were done with a consuming interest and were a source of immense pleasure for me. Hopefully, this will filter through to the reader.

This project is the culmination of a life-long passion for the study of war. One wonders how growing up in Israel aroused and nourished that passion. I turned eight in June 1967, the month of the Arab–Israeli Six Day War, when I was finishing the second grade and acquiring fluent reading. From about that time, the subject of war became the centre of my reading and thought. Eventually this led to a doctorate at Oxford, an academic career, and the writing of a series of books on modern European military thought. I reached the stage where I felt more prepared to get to grips with the phenomenon of war in a search for deeper understanding of what ultimately it was all about. Trained as a historian with a preference for painting on wide canvases and teaching in a political science department, I still had to familiarize myself with wholly new fields of knowledge—indeed, new worlds. At the personal level, if at no other, this has been the most rewarding experience.

The book has been nine years in the making, between 1996 and 2005. When I began working on it the Cold War had ended and a New World Order of peace had been proclaimed. I finish the book after the 11 September 2001 attacks in the USA, which foreshadow the possibility of unconventional terror and again make war a topical issue and the subject of wide public interest and concern. Although these events have inevitably left their mark on the book, particularly on its penultimate chapter, the motivation behind the book and its main arguments are independent of them. At the same time, aimed at a comprehensive understanding, this book will, it is hoped, be of some use to anybody whom world developments—past and present—have made to ponder the puzzle of war.

Tel Aviv
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Part 1

WARFARE IN THE FIRST TWO MILLION YEARS: ENVIRONMENT, GENES, AND CULTURE
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Introduction: The ‘Human State of Nature’

Is war grounded, perhaps inescapably, in human nature? Does it have primordial roots in humans’ innate violence and deadly aggressive behaviour against their own kind? This seems to be the first and most commonly asked question when people ponder the enigma of war.

But how do we observe ‘human nature’? All animal species, except humans, have a more or less fixed way of life, which is predominantly determined by their genes, and which changes, if at all, only with the species itself in the relatively slow pace of biological evolution and can thus be meaningfully addressed as ‘natural’ for them. For this reason, animals have a zoology, an ethology (the science of animal behaviour), and, in geological time, an evolution, but they have no history. By contrast, humans evolved mammalian learning capacity to unprecedented heights and explosive potential. On top of their biological inheritance, they have evolved and pass on to their contemporaries and descendants the accumulated and ever more complex array of artefacts, techniques, modes of behaviour and communication, and belief systems known as culture. Vastly faster than biological evolution, cultural evolution has dramatically transformed and diversified the human way of life. It can be regarded as humanity’s most distinctive trait.

Humans have lived in a myriad of cultures, which have been constantly in flux, substantially different from one another and all, in a way, ‘artificial’. We
have been carried to an almost incredible distance from our origins. As a result, extreme relativists, empiricists, and historicists have traditionally held that humans are almost infinitely elastic, questioning whether anything called ‘human nature’ exists in any meaningful sense. At most, it is agreed that nature and nurture, genes and the environment, biology and culture, ‘hardware’ and ‘software’ are closely interwoven and practically inseparable in the shaping of humans. Both components, and their wealth of interactions, have constantly to be kept in mind when one seeks to study the remarkable human evolution.

And yet, at the starting point of this interaction, there is still a very strong sense in which we can speak, for humans, about the ‘state of nature’ as something other than a seventeenth-century philosophical abstraction. During 99.5 per cent of the almost two million years of evolution of our genus Homo, all humans lived a fairly distinctive way of life, that of hunter–gatherers. Only 10,000 years ago in some areas, and even more recently in others—a brief moment in evolutionary terms—did humans turn to agriculture and animal husbandry. This change, which is discussed later, was a cultural innovation, involving scarcely any significant biological change. Thus, modern humans evolved biologically over millions of years in adapting to the selective pressures of hunter–gatherer existence. In the anthropological literature, the concept of ‘primitive war’, which makes no distinction between hunter–gatherers and pre-state agriculturalists, is commonly used to describe ‘original’ warfare. Although this category has some value, it should be realized that in evolutionary terms it lumps together the aboriginal condition of all humans with a quite recent cultural innovation. Agricultural society, even more recently topped by the growth of the state and of civilization, is the tip of the iceberg in human history, the vast depth of which in time is obscured in most people’s minds by the scarcity of information.

To be sure, human hunter–gatherer existence was never quite uniform. It varied in adaptation to diverse ecological niches, and these adaptations themselves evolved with the accelerating evolution of the genus Homo itself over its long period of existence. As the revolutionary advances in the molecular study of DNA have revealed, all humans living today are closely related and belong to the species Homo sapiens sapiens, whose remains have been found in Africa from more than 100,000 years ago. The celebrated cave and rock art and other exquisite artefacts of Homo sapiens sapiens, which
reached new heights during the period known as the Upper Palaeolithic, or Upper Old Stone Age, between 35,000 and 15,000 years ago, are cultural evidence—in addition to the anatomical one of skeletal remains—of a mind that is indistinguishable from ours in its capacity. Varieties of archaic Homo sapiens date back to up to half a million years ago. They were preceded from about two million years ago by Homo erectus, the first human species that led a hunter–gatherer existence throughout much of the Old World. In technical sophistication, tool refinement, use of fire, level of communication, and ability to plan ahead—to mention just some variables—later hunter–gatherers were more sophisticated and successful than their biologically more primitive predecessors in the genus Homo.¹ I touch on some of the differences in hunter–gatherers’ existence that are relevant to the subject later. Still, there is also a great deal of similarity and continuity in the hunter–gatherer way of life, extending from the origins of the genus Homo to the present.

So, did humans, in their evolutionary natural environment and evolutionary natural way of life as hunter–gatherers, fight? Was fighting an intrinsic aspect of their particular mode of adaptation, moulded by selective pressures for millions of years? In other words, has their evolutionary path made warfare ‘natural’ to humans? Or, alternatively, did fighting come later, only after culture really took off, and is it therefore ‘unnatural’ to humans? The two antithetical classical answers to this question have been advanced in the seventeenth and eighteenth centuries—after the Europeans’ great geographical voyages brought them into contact with a vast variety of aboriginal peoples—by Thomas Hobbes and Jean-Jacques Rousseau. For Hobbes, the human ‘state of nature’ was one of endemic ‘warre’, murderous feuds for gain, safety, and reputation, a war of every man against every man, which made life ‘poore, nasty, brutish, and short’ (Leviathan, 1651, 13). People were rescued and elevated from this condition only by the creation of the state, the coercive power of which enforced at least internal peace. By contrast, according to Rousseau’s Discourse on the Origins and Foundation of Inequality among Mankind (1755), aboriginal humans lived sparsely and generally harmoniously in nature, peacefully exploiting her abundant resources. Only with the coming of agriculture, demographic growth, private property, division of class and state coercion, claimed Rousseau, did war, and all the other ills of civilization, spring up.

So suggestive and persuasive were both these views of the past that they
have remained with us, with little variation, since their inception. During most of the nineteenth century, the period in which European supremacy and belief in ‘progress’ and in the gradual uplifting ascent of civilization were in their apogee, it was mainly the Hobbesian image of the ‘brute’ and the ‘savage’ that dominated, colouring ethnographic reports as westerners expanded their rule over the globe. Conversely, during the twentieth century, as disillusionment with ‘progress’ and civilization grew and European supremacy began to wane, it was the Rousseauite idyllic picture of the aboriginal that increasingly dominated anthropology.

The past decades have seen an explosion of field and theoretical work on themes related to this subject, which have greatly enhanced our knowledge and which call for a new comprehensive attempt at finally resolving the enigma. Three sources in particular have yielded a wealth of information and insights: first, broad empirical context for comparison and contrast is offered by the study of animal aggression and fighting; second, empirical evidence relating to the question of fighting among hunter–gatherers is provided by the study of hunter–gatherer populations that have survived to the present or were closely observed by westerners in the recent past; this evidence is supplemented by archaeological findings relating to prehistoric hunter–gatherers; and, third, a general explanatory perspective is suggested by evolutionary theory.

OF BEASTS AND MEN

During the 1960s, the question of why humans fought appeared to have become more perplexing than it had ever been before, as a number of separate and sometimes contradictory ideas from within and on the fringes of the scientific community regarding animal and human aggression struck public consciousness with tremendous effect.

One such idea was advanced by popular writer Robert Ardrey, in his *African Genesis* (1961) and other best-selling books. At that time, zoologists believed that our closest relatives, the chimpanzees, were vegetarian, non-violent, and non-territorial. It was an image that resonated well with the 1960s’ creed of ‘return to nature’. Ardrey claimed that it had been our ancestors’ adoption of hunting and meat eating that had turned them into...
‘killer apes’, predators who regularly turned their new skills and weapons against their own kind. The idea had been suggested to him by palaeontologist (researcher of fossilized bones) Raymond Dart, who had interpreted skull wounds in specimens of Australopithecus as weapon inflicted. Cerebrally ape-like, but erect and bi-pedal species, the Australopithecians are believed to have been the ancestors of the genus _Homo_ and its link to the apes. The hominid line is estimated to have diverged from the chimpanzee some seven million years ago, and Australopithecians have been found to have lived until one million years ago. Dart’s theory did not hold long, however. Since the 1960s palaeontology has advanced by leaps and bounds. We now know infinitely more about Australopithecians: they were predominantly vegetarians; no stone tools related to them have been found; and the celebrated skull wounds are believed to have been caused by a leopard. This, however, has not necessarily invalidated the claim about _humans_ becoming killers with the adoption of hunting and meat eating. This idea was advanced by the anthropologist S. L. Washburn and popularized by the zoologist Desmond Morris in his best-selling book, _The Naked Ape_ (1966).

Other extremely influential ideas about animal and human aggression were advanced by Nobel laureate and co-founder of ethology, Konrad Lorenz, in his _On Aggression_ (1966; German original 1963). In response to Ardrey, Lorenz pointed out that, among animals, fighting—that is, violence within the species (intraspecific)—bore little relationship to predation. Contrary to popular ideas, herbivores fight among themselves no less, and sometimes more, viciously and frequently than carnivores. However, Lorenz claimed that animals very rarely fought members of their own species to death. In the hunter–prey relationship, killing is necessary because consumption of the prey is the rationale of the whole exercise. By contrast, intraspecific violent conflict is mostly about access to resources and females. If one adversary stops the fight by retreating or signalling submission, further violence becomes unnecessary. According to Lorenz, signals of surrender and submission serve as biological cues that turn off the victor’s aggression. Furthermore, if the adversary’s will, rather than life, is the target, demonstration—which has a smaller role in the hunter–prey relationship—is almost as important as brute force. The adversary can simply be intimidated by threatening displays of size, strength, and vigour.

Lorenz’s expertise was the varieties of animal displays of strength and signals of submission. He termed the resulting form of animal intraspecific
fighting ‘ritualized’. The term is misleading. Ritual implies merely going through the motions. Here, however, was a high stakes–high risk–high gain–conflict, involving both display and actual force, and intended to deter or enforce. At any rate, whereas Ardrey drew a divide between humans and chimpanzees in respect of deadly fighting, Lorenz’s claims drew an even sharper divide between humans—who regularly kill each other in fighting—and all other animal species. Human violence now appeared unique and, therefore, enigmatic, and called for some special explanation. Lorenz, for instance, suggested that in evolutionary terms human weapons, and hence lethality, developed too recently and too fast for the mechanisms of intraspecific restraint to catch up. In any case, the idea that ‘we are the most ruthless species that has ever marched the earth’ became widely accepted.2

As it happened, some of the most fundamental ideas that stood at the basis of the 1960s’ influential theories have since been all but reversed by the scientific community. To begin with, field study—pioneered by Jane Goodall at Gombe, in Tanzania, from the mid-1960s, and joined by other researchers since—for the first time provided a close, sustained, and reliable scientific observation on the chimpanzees’ way of life in their natural habitat. The findings have been revolutionary. For instance, it has been revealed that rather than being vegetarian, chimpanzees (and other primates) crave meat as a prime food. Primarily, although not exclusively, males, acting in cooperation, isolate, hunt, and avidly eat other animals, mostly monkeys and small mammals, but also straying, weak or infant alien chimpanzees. (Savannah baboons also hunt, if somewhat less successfully.) Furthermore, the chimpanzees’ group—several dozen strong and consisting of males and females with their infants—has been found to be highly territorial. The males patrol the boundaries of the group’s territory and fiercely attack any intruder, including foreign chimpanzees (but not lone females coming to join the group). They also aggressively raid foreign territories.

Goodall documented a conflict between two groups that lasted several years. The males of one of the groups invaded and gradually, one by one, isolated and killed first the males and then the other members of the other group, finally annexing its territory. Instances of murderous aggression, even by females, especially against infants that were not their own, have also been observed within the group. Finally, on occasion, chimpanzees would threaten with, beat with and throw sticks and stones.3 From being humans’ idyllic antithesis in the 1960s’ culture, the friendly, playfully naughty, and
The ‘Human State of Nature’

intelligent, but also jealous, quarrelsome, killing, and even warring, chimpanzees now increasingly mirror what we have commonly thought about ourselves. There is nothing particularly exceptional about humans in this respect.

Not only the divide between humans and chimpanzees with respect to fighting and killing but also the much broader divide between humans and the rest of the animal kingdom has been erased. Rapidly expanding research has drastically altered scientific perceptions. In contrast to Lorenz’s claim, intraspecific killing has been found to be the norm and one of the main causes of animal mortality. It is true that between mature males fighting for access to resources and females, the weaker or loser normally decides at some stage to cut its losses and break off the fight, either by displaying submission, if the fight takes place within a group of social animals, or by retreating. The same applies to intergroup fighting in social animals, such as lions, wolves, hyenas, baboons, and rats. Nevertheless, severe wounds inflicted during a fight are often a cause of mortality, either directly or by diminishing the animal’s capacity to obtain food. In addition, beaten, deprived, and submissive animals have been found to be more susceptible to disease and to have considerably shorter life expectancy. Furthermore, by far the most vulnerable to intraspecific violence are infants. For example, a new leader of a lion pride will systematically kill all the cubs of the previous monarch, despite their mothers’ desperate efforts to hide them. It does so in order to enable the lionesses to come into oestrus and have its own offspring, which is not possible as long as they raise other cubs.

Langur monkey and gorilla males have been observed to behave in a similar manner. Solitary animals, such as the rest of the big cats and bears, try to do the same against violent maternal resistance whenever they find the opportunity. Presumably for similar reasons, chimpanzee males have also been observed to kill infants that are not their own when the group is joined by a nursing mother. Even more widespread is the intraspecific elimination of alien infants, chicks, and eggs, carried out in order to get rid of actual or potential competition for resources or in cannibalism. This cause of mortality is particularly high among species with an extreme so-called ‘r’ strategy of reproduction, which maximizes the number of offspring rather than parental care of fewer offspring (‘K’ strategy). Finally, young siblings fiercely compete for nourishment. In some species, for instance among eagle chicks, but also among rabbits and other seemingly harmless creatures, this
competition regularly results in merciless fighting in times of food shortage, when the strong might kill, and often cannibalize, the weaker siblings. Nature documentaries have vividly brought all this home to millions of television viewers, completing the demise of the 1960s’ perceptions.

Leading authorities have estimated that the rate of intraspecific killing among humans is similar and in some cases greatly inferior to that of other animal species. According to one of them, it is in fact many times inferior to that of any mammalian species studied. In any case, the similarity is striking: most killing in the animal kingdom is carried out for prey, as it is with humans (animal hunting), but there is also substantial killing of conspecifics—one’s own kind—in competition for the opportunity to prey and mate and for other vital activities, as it is with humans. Thus, in a few decades, the scholarly picture has changed drastically. At least in the scale of intraspecific killing, humans have lost their supposed uniqueness and are no longer regarded as an exception in killing their kind.

To be sure, the scale and form of killing in nature are not uniform among all species. They depend on each species’ particular mode of adaptation, especially its forms of subsistence and mating, and of course they also vary between individuals within a species. For example, although the common chimpanzee (Pan troglodytes) has been found to resemble humans in its violent behaviour, the more recently discovered pygmy chimpanzee or bonobo (Pan paniscus) exhibits an almost idyllic life of free sex and little violence, much as in the 1960s’ perceptions of the common chimpanzee. Thus human fighting has to be examined in context and detail. Why and how did humans fight in the ‘state of nature’? How did this stand in comparison with patterns prevailing in the animal kingdom? And even before that, did hunter–gatherers fight at all? Perhaps humans in the state of nature are exceptional, and closer to the bonobo, in their avoidance of fighting and killing—quite the opposite of the view that we have just discussed? Who was right after all—Hobbes or Rousseau? Surprisingly, despite the wealth of evidence, this last is a question about which anthropologists have failed to reach a definite conclusion. It must be settled first.
Peaceful or War-like: Did Hunter–Gatherers Fight?

It was the Rousseauite school that increasingly dominated anthropology during the twentieth century, allied as it was with the liberal critique of civilization’s ‘unnatural’ and harmful traits. The school’s view regarding human fighting was yet another idea that gained supremacy—capturing the public’s attention—in the 1960s, and is still influential today. Its most famous representative was the anthropologist Margaret Mead. The title of her article, ‘Warfare is only an invention—not a biological necessity’ (1940), seems to epitomize the Rousseauite attitude. In actuality, the weight of Mead’s article was more on the second half of the title. She rightly objected to biological determinism, pointing out that some societies fought whereas others did not. Her answer as to why this was so—fighting as a cultural invention in response to particular circumstances—was less than satisfactory, but she was well aware that even among peoples of the most basic social organization—hunter–gatherers—some, if not most, of them engaged in warfare. It was not an awareness shared by all later anthropologists. Many of them have been impressed by the theories that denied intraspecific killing among animals and by the apparent absence of warfare among some extant hunter–gatherer peoples studied in the 1950s and 1960s, such as the !Kung Bushmen of the Kalahari Desert, the Hadza of east Africa, and the Pygmies of central Africa. These anthropologists have held that, because hunter–gatherers were thinly spread, supposedly untied to a territory, and
held few possessions, they did not engage in fighting. Warfare has been assumed to have come later, with agriculture and the state. This view still lingers on, mostly but not solely among non-experts. It involves a curious selective blindness to whole aspects of the evidence that we possess about hunter–gatherers.²

A powerful attack on the dominant Rousseauite view in the anthropological study of ‘primitive war’ has been delivered in Lawrence Keeley’s excellent War before Civilization: The myth of the peaceful savage (1996). Amassing overwhelming evidence, Keeley has all but demolished the doctrine that pre-state societies were peaceful and, hence, that warfare is a later cultural invention. All the same, his book has a major lacuna, with the result that the question is only pushed one stage back to its true Rousseauite focal point. An archaeologist of the Neolithic period, when people adopted agriculture and animal husbandry, Keeley has cited extensive evidence of warfare, predominantly derived from a great variety of primitive, pre-state, agricultural societies from around the globe and across time. However, as mentioned above, agriculture and animal husbandry are themselves relatively recent cultural inventions, taken up by human societies only during the past 10,000 years. Might it not then be possible that warfare emerged only with these major developments, when people began to possess valuable stored food and other property that was worth fighting for, as, indeed, was Rousseau’s original claim? This would mean that human fighting began, not during the past five millennia, with the emergence of the state, but from ten millennia ago, with the transition to agriculture. Thus, the fundamental question remains open: were people peaceful before that point in time, during the over 100,000 years of existence of our species, Homo sapiens sapiens, and the two million years of existence of our genus, Homo—that is, during the human ‘evolutionary state of nature’? Because during that vast timespan people lived as hunter–gatherers, the evidence of fighting from pre-state agricultural societies may not apply to them. Therefore, in order really to resolve the Hobbes–Rousseau debate, the concept of ‘primitive warfare’ that lumps together hunter–gatherers and pre-state agriculturalists must be disentangled, and attention fixed on hunter–gatherers alone in their relationship with each other.³

The scholarly study of hunter–gatherers is yet another field that has developed exponentially since the 1960s. It was inaugurated as a comparative field of research with an important conference and the ensuing volume Man...
Peaceful or War-like: Did Hunter–Gatherers Fight?

the Hunter (1968), edited by Richard Lee and Irven DeVore. Many other excellent studies have followed since. The picture that has emerged from these studies is of neither a Hobbesian hell nor a Rousseauite paradise of pre-sin innocence, but a more mundane complex. In a Rousseauite vein, hunter–gatherers have been found to have laboured less, had more leisure, and been generally healthier than agriculturalists. ‘The original affluent society’ was the hyperbolic catchphrase coined in the 1960s to describe these findings. Still, periodic droughts, or any other adverse climatic condition affecting their subsistence, often decimated them. Also, on the bleak side, pressure on resources was avoided by widespread infanticide, especially of baby girls. Hobbes’s image of an endemic state of ‘warre’ and lack of security in the absence of state authority has been found to be perhaps somewhat overdrawn, but not by that much. Quarrels were rife among hunter–gatherers as among the rest of humankind, resulting in very high homicide rates among most hunter–gatherer peoples, much higher than in any modern industrial society. And yes, intergroup fighting and killing were widespread among them.

Hunter–gatherers lived in extended family groups of several generations (clans or, in more recent anthropological parlance, local groups). As with the chimpanzees, these groups have been universally found to consist of between 20 and 70 members, most typically 25. As with the chimpanzees, they were mostly patrilineal—that is, it is more often the females who came from outside, whereas the males stayed in the group and were therefore closely related. Unlike the chimpanzees, several family (local) groups came together in a regional group. The regional group or a number of related regional groups often represented a ‘dialect tribe’ and had their own name and a distinct sense of self-identity as a ‘people’. Depending on the resource richness of its environment, the regional group could live fairly concentrated together or assemble seasonally for festivals, in which common rituals were performed and marriages were agreed upon and took place. Computer simulations have shown that the number 150–200 is the minimum required for the balance and stability of an endogamous marriage circle. Indeed, regional group size has been found to vary from 175 up to 1,400 people in extreme cases, with 500 as a common average. Relationships with neighbouring regional groups included exchange, common ritual, alliances—and warfare.

Few hunter–gatherer peoples have survived in their original way of life