

Good News for a Nonviolent Future

**A New Scientific Approach
In a Simplified and Popular Format**

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This work is dedicated to my wife Silvana,
sweet companion and precious adviser

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1. Introduction

1.1 A warning for readers – A different book

This small book will **not provide easy reading**: it will ask you to exit your everyday world and fly high through time and space. This may cause some dizziness, but there is nothing esoteric, just *modern science taken seriously in its social implications*.¹

The style of presentation is popular, not for specialists, but it is correct and accompanied by enough references to allow further exploration if the reader is willing and able to pursue the topic further.

Modern science is encouraging *exaggerated specialisation* that leads to highly qualified and well-paid technicians who are not able to appreciate **the social implications of their own work** (see footnote 1). This undermines the ability of citizens' participation in scientific advances and weakens democracy.

¹ In the years 1960-70s appeared the interesting trend of discussing *the social implications of scientific research*, particularly encouraged by biologists at the Open University in England (Prof. Steven Rose). It was practically ignored by politics and the mass media. This author has learned this multidisciplinary approach from his friends working with Prof. Rose and used it ever since.

If you are not interested in these real problems, *you may prefer to turn your attention to the fiction section of the bookshop.*

Before deciding, please read the next short section.

1.2 The purpose of this book

This short work has three purposes:

a) to demonstrate the *nonviolent nature of human beings* (in the bio-**cultural**, not genetic, sense). See details in Section 7.2 to know ourselves,

b) to show that the way we are living now *is not normal for human beings*,

c) and to explore a new strategy – *a nonviolent, slow, legal, and local change of life-style* – to avoid more violence in our societies and more destruction of our environment.

1.3 Necessary clarifications

To avoid misunderstandings, it must be clarified at the beginning that this work:

a) it is not a utopian fantasy,² nor the product of naive social activism, but the result of a *careful scientific study* of the species *Homo sapiens*, from sources currently used in university teaching of *Anthropology* and of *Neuroscience*.³ The social implications of information in these sources can be questioned and the author wishes to encourage discussion at all levels. The worst thing would be to ignore, or sometime to hide, *important information about our bio-cultural evolution* and the glorious and long nonviolent experience of Palaeolithic *Homo sapiens*, as well as to ignore the **origins of violence** (see Section 3.3), which we have quietly been practicing as "normal" for about 5,000 years.

b) the present proposal of a nonviolent human nature and the relative suggestions about social changes *have nothing to do*

² *Definition* - Utopia means (from the Greek) "place that does not exist", as used by Thomas More in his homonymous novel of 1516, which describes an imaginary ideal State. Unfortunately, the adjective "utopian" is currently used, instead, to stigmatize naive and non-practicable political ideas (this may be okay), while idealism is generally discouraged among young people by politicians, who have become increasingly cynical and authoritarian (this is not good). For these reasons, 20 years ago this author has coined the term *neotopia* ("new place") to indicate a new social proposal, but achievable in a free and democratic regime (Giorgi, 2001).

³ For Anthropology see, for example, the sixth edition 2016 of W. Haviland et al. "*The essence of Anthropology*", and John H. Bodley "*Cultural Anthropology*" sixth edition 2016. For Neurobiology see, for example, Eric R. Kandel et al. "*Principals of Neural Science*" fifth edition 2012, and John G. Nicholls et al. "*From neuron to brain*" fifth edition 2012.

with the well-known ideas of Jean Jacques Rousseau and his legendary "noble savage". Rousseau (1712–1778) could not take advantage of the current scientific knowledge about *Homo sapiens*, was influenced by the Romanticism of his time and was misinformed by erroneous reports of navigators returning from the islands of the Pacific Ocean.⁴

1.4 Character of the presentation

In this text the presentation will be in a simple and informative style to prevent important information from remaining only in specialized literature, that is, to be able to also inform the public, *especially citizens engaged in active democracy and nonviolence*. In this way it is hoped to limit the degenerative social tendencies that are manifesting themselves in most of the world:

⁴ The exotic Polynesian girls at the beaches of the Pacific Ocean were not part of the "noble savage" world of J. J. Rousseau, since their men were violent practitioners of internal wars, and excellent navigators recently arrived from Melanesia, that is, from agricultural and violent cultures. Nevertheless, for two centuries the sailors of the colonial powers once returned to Europe have nourished their comrades of revelry with idyllic scenes of the Polynesian people. Among other things, Rousseau has never used the term "noble savage" and imagined, instead, our ancestors as poor idiots who wandered alone in the forest, so naive as to ignore how to hurt others. For more details see Giorgi (2001, Section 1.2.5, note 7, p. 14 and 2008, Section 3.1.4, note 5, pp. 56-57).

individualism, violence,⁵ materialism and several types of ignorance.

To facilitating the reading of this publication, we have maintained the text as short as possible (about 30,000 words). Readers interested in more detailed information should refer to the corresponding chapters or sections in previous publications by Piero P. Giorgi and other authors mentioned throughout the text regarding new scientific evidence of Anthropology and Neurobiology.

Of course, *science never meant being the holder of truth* because observations, hypotheses and theories can be challenged by new observations. But observations and interpretations can obtain such a consensus on the part of scholars to justify the solidity of new hypotheses. In the future, new observations / discoveries could question these same ideas. Public debates, transparent data, and the ability to change ideas are a guarantee of

⁵ *Definition* - Violence is a complex social behaviour designed to oppress, injure, or kill large numbers of *members of its own species*. It should be noted that, based on this definition, at this moment *Homo sapiens* is the only violent species on Earth, and that our behaviour is not biologically compatible with survival. Luckily, human violence is recent and **not** genetical defined (Section 3).

For a comparison, we also give the definition of *aggression* - Behavioural predisposition of all animals, which, unlike plants, must kill (other animals or plants) to survive (*alimentary aggression*) or compete between males (sexual selection). *Aggression is not violence, even though they are often used as synonyms* (see Dictionary of Definitions at the end).

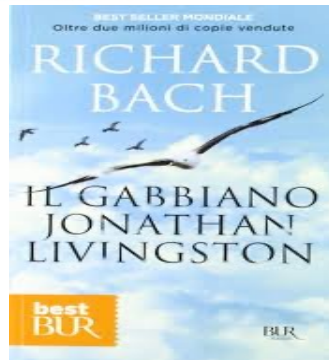
seriousness in science. The rare cases of failure of this healthy process will be cited here when necessary (the first case is already mentioned below at the end of Section 2.3).

A different way of investigating human nature

A warning: you are facing a novel and unusual approach for understanding **human nature**.

We will leave our usual everyday world and **will fly high through time and space**.

This may cause some dizziness, but we are not dealing with anything esoteric. It is just **modern science** seriously considered in **its social implications**.



Jonathan the Seagull refused to scratch in the rubbish and returned to fly high for fishing.

A popular text must maintain the same scientific criteria as a specialized presentation, while avoiding technical abstractions and lengthy discussions, but offering sufficient references to allow the validity of the assertions to be checked as required by the scientific method.

Importance will be given to *a clear and consistent terminology*.

For this purpose, important terms will be clearly defined the first

time in a note at the bottom of the page and all the definitions will be repeated in alphabetical order in a dictionary at the end of the book for subsequent checks when the same terms will be used again elsewhere.

IMPORTANT NOTE FOR READERS

To make this book readable by the non-academic public, I have transferred more technical considerations (for example, definitions or more scientific explanations) to footnotes at the end of the page. **If you are following an interesting theme and you want to arrive easily to the end of a topic, you may not read the footnotes (or, better, come back to them later).**

1.5 Importance of human nature for Peace Studies

Since here we are dealing with **nonviolence**⁶ and the present writer has been engaged for more than 30 years in the practice

⁶ *Definition* - Nonviolence is a "new" philosophy of life and social behaviour, if we compare it to that for which most human beings are educated at present (individualism, competitiveness, aggressiveness, greed for money, etc.). In reality it is not new because until recently (about 5-6,000 years ago) *H. sapiens* was nonviolent. Nonviolence is an active social solution and involves empathy towards other human beings, other living beings, and the environment. If we will manage to recuperate our normal nonviolence, that will be a true modern "revolution" (or radical change), not just a minor novelty, as already proposed in Giorgi (2020).

and theory of Peace Studies at the academic level (see website www.pierogiorgi.org, Menu, Detailed Academic CV, Peace Studies), we should consider the importance of the study of human nature in this kind of studies, as schematized in the figure below.

There is *a real watershed in Peace Studies*. For those who believe that human beings are congenitally violent (a very common idea in the public and among academics) this field of studies remains *limited to palliative interventions*.

Two ideas about violence = two types of Peace Studies

HUMAN NATURE IS
VIOLENT
=
DIPLOMACY AND WEAK
ATTEMPTS
TO REDUCE VIOLENCE

HUMAN NATURE IS
NONVIOLENT
=
A RETURN TO
NONVIOLENCE
IS POSSIBLE

For those who instead believe that human nature is nonviolent (in the bio-**cultural**, not genetic, sense), this field of study opens very ambitious horizons: *to prepare a true nonviolent change in lifestyle to save us from a possible rapid extinction.*

This is not a small difference.

2. Human beings

2.1 The emergence of the new species "Homo sapiens"

This presentation of the human species is different from that of the university texts of Anthropology, which dedicate a lot of space – about 25% of the text, as for example in W. Haviland, *Cultural Anthropology*, sixth ed.; in the last edition 2016 of Haviland et al. *The essence of Anthropology* over 16 chapters one offers 4 chapters of introduction to our very distant evolutionary origin millions of years ago, before discussing, briefly, about Palaeolithic *H. sapiens*.

We respect research on the very ancient and extinct Primates that have anticipated us, but we prefer not to take this into account in this work for the following reason: we are dealing here with the presence of violence and nonviolence *in our species*, regardless of non-human species that preceded us.⁷

⁷ The current consensus in anthropology is that our species, *Homo sapiens*, has emerged in East Africa about 300,000 years ago. Some archaic forms of our species, such as the populations of Neanderthal people, were probably also *Homo sapiens* since we have evidence of substantial genetic mixing (mating) between these two sub-species. See Natural History Museum

There is a side benefit to this simplified approach to the study of human beings: those who rely on creationist (religious) explanations about the appearance of our species (many in the USA, Australia, and Turkey, for example) can still follow our discussion without being concerned by whether *Homo sapiens* the result of a process of natural selection is or of a special divine creation. Such a question is indeed important, but *it deserves to be properly discussed in another context.*, not in this short popular presentation.

For a modern scientific presentation of the evolution of *Homo sapiens* see Stringer and Andrews (2011).

2.2 The migration of Homo sapiens in almost the entire habitable world

Palaeoarcheological data suggest that from the beginning true human beings (*Homo sapiens*) lived in small groups of *nomadic hunter-gatherers* and migrated into various regions of Africa. A part of them (probably a small proportion) spent about a thousand years in the current region between the Sinai Peninsula and Palestine, then left the African continent distributing relatively quickly in all five continents of the Earth. The archaeological evidence of the migration routes of

(London), "Discover", "Are Neanderthals the same species as us?".

Palaeolithic humans is found along the temperate-tropical belt of the Earth (except for the passage from Asia to the American continent for an obvious geographical necessity), as confirmed by our anatomical and physiological characteristics typical of a Mammal suitable for a warm-temperate climate.

We can obtain the information on their social organization (a key topic of this work) from Palaeolithic rock art (from about 50.000 years ago) and from the reports of anthropologists that have lived for years with the *nomadic hunter-gatherer groups* still existing in the XX century (Bonta, 1993). They were about thirty ethnic groups at that time. Now (2023), they are only 23, as monitored at the web site [https://cas.uab.edu/peaceful people](https://cas.uab.edu/peaceful%20people) (see below in Section 2.3).

2.3 The importance of Palaeolithic human beings

As already mentioned in Section 2.1, it is enough to pick up a university text of anthropology of the eighties and nineties to observe a very curious aspect: the important space dedicated to different aspects of the evolution of archaic forms of human-like fossil forms (Hominins) until *Homo sapiens* (that is us), while very little is discussed about the lifestyle of our species before agriculture. In fact usually a good third of the text is dedicated to the various hypotheses of the transition from "Lucy" and the various forms of *Australopithecus*, then to the various forms of

Hominins (about 2 million years!) up to *Homo sapiens*, but, strangely, only a few pages are dedicated to geographical distribution, probable lifestyle and social organization of the most important species, that is us, from about 300,000 years ago to 10,000 years ago (time of invention of the production of food in the Middle East) or 5,000 years ago (time of invention of writing). **Why so little interest in the culture of Palaeolithic *Homo sapiens*?** Uninteresting savages? This is not so, as we shall see (see Sections 6 and 7).

But why so much interest for the possible ancestors of millions of years ago (a complex ramification of mysterious evolutionary relationships) and very little for our certain Palaeolithic ancestors, our own species, who lived just before the so-called “civilizations”? We will attempt a response below, because occasionally there are serious socio-political trends that interfere with scientific research, which should instead be free from partisan ideologies.

3. The human tragedy

3.1 Introduction

With this Section we begin to propose some very different interpretations from the traditional ones offered by the

disciplines of Anthropology and History. We hope that the reader will soon understand that it is not a matter of differences in the available scientific information (these cases are rare, unimportant and will be pointed out when necessary), but *in the ethical and social interpretation* of the same information.

All the texts of Anthropology point out that with the new Neolithic period new phenomena emerge in the social life of *Homo sapiens*: the most refined exploitation of the environment, the invention of the production of food (agriculture and animal breeding), the consequent loss of nomadism, the consequent increase in size of human communities and the individual specialization in the contribution to the economy of the community. Then it is pointed out that these phenomena have gradually increased and led to very complex human settlements characterized by considerable technical innovations. It is then declared that this has opened the way to **great civilizations**, the term "civilization" being used in the sense of improvement.

We, however, have concluded that the same phenomenon has opened the way to **a human tragedy**: that is, specialisation in people's contribution to production, a consequent stratification in society, important differences in availability of goods and services, a rapid emergence of privileged individuals (mostly males) that allocated to themselves titles of power and the right to exploit common people. This introduced diffused violence within communities and war between communities.

We are still experiencing this tragedy at the beginning of this third millennium of the Common Era, while the public is let to believe that *this is our normal way of life*.

As we will see (Section 3.3), this totally different interpretation is not due to a pessimistic apocalyptic vision, nor to a romantic vision of the "good old time", but to objective data that we will present with the *traditional scientific method*, also enhanced by a *multidisciplinary approach*, as obtained from the disciplines of Anthropology, Neurobiology, Evolution, and Ecology.

In short, in the last 5.000 years *Homo sapiens* has achieved great *technological improvements* but has lost a *great deal of human qualities*. In the following chapters we will see how 12.000 years ago we moved from a useful invention, then to a few innocent consequences, then to the sinful invention of violence about 5.000 years ago. Will humans be able to recuperate the nonviolent culture we practiced since the appearance of our species? For the sake of our grand-children, I hope so.

3.2 The invention of food production

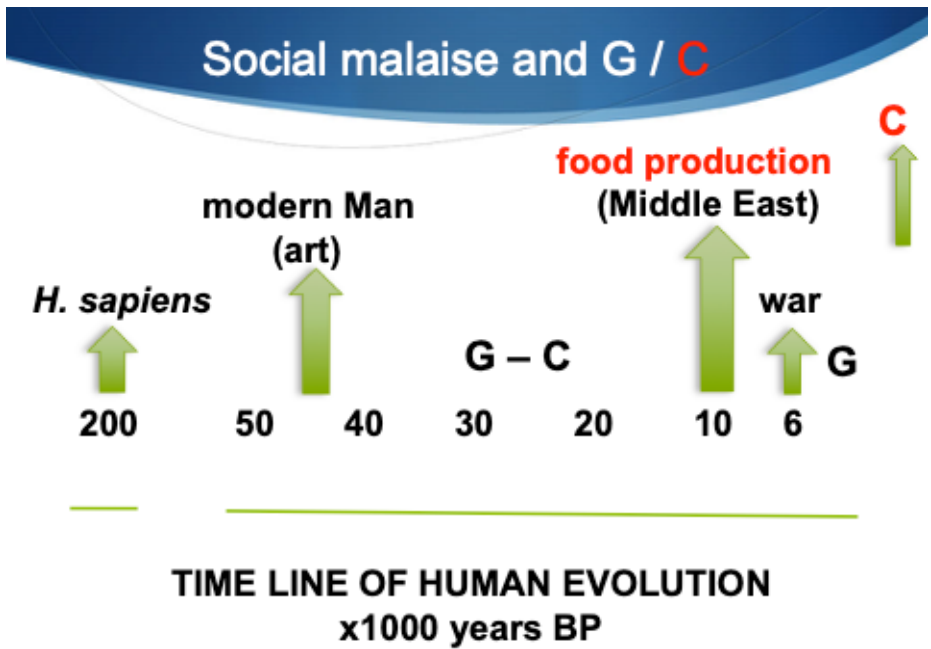
3.2.1 Introduction

Two phenomena of the human adventure have been underestimated, in our opinion, for a long time by the anthropological and archaeological literature.

a) The transition from the lifestyle of nomadic hunter-gatherers, in the past common to all Palaeolithic *Homo sapiens*, to the sedentary cultivation of plants and breeding of animals was noted by early palaeoarchaeologists, but without discussing the important social implications until a few years ago (see below).

b) *The invention of food production occurred independently three times in three regions of the Earth distant from each other for cultural transfer and in three different periods* with disastrous consequences. In all three cases (appearance of power systems, of structural violence, than direct violence and war) without producing academic discussions on the relationship between causes and effects by anthropologists and historians until

recently.⁸ See the figure above (note: G-C = harmony between genetics and culture, followed by disharmony between them = *social malaise*).



⁸ An exception could be Giorgi (2001, Chapter 4, then developed in several works that followed) who presented a very complex *hypothesis on the origin of violence*, then repeated in other papers (for example, Giorgi 2008, 2020 and in several conferences) and summarized here in Section 3.3. After 20 years of academic exchanges and conferences, I have not yet received any criticism of this hypothesis or read something substantial about alternative hypotheses concerning this important event (origin of social violence, not of war that is different).

3.2.2 *An invention of women*

Most anthropologists seem to agree with the hypothesis (difficult to prove experimentally but very probable) that the domestication of nature, and therefore the invention of agriculture and animal breeding, was the clever work of women. From the study of the culture of contemporary hunter-gatherers, we know that especially women were the ones to collect fruits and vegetables and hunt small animals, while men devoted themselves only to hunting large animals and only when they could find them. It seems very likely that women collected wild cereal ears in their bags and kept them there for a few days. These could have germinated and women, thanks to their familiarity with reproduction and growth of small living creatures, had the intuition that by putting the grains in development in the soil they would become plants full of new

On the other hand, during conversations with non-academic people in Europe, I have often heard the opinion that the *cause of violence was the appearance of private property*. It is curious that this opinion, not supported by anthropological evidence, has been put forward by Frederick Engels in "*The origin of the family, private property and the State*" (1884). How the literature of a revolutionary socialist, so much opposed by the Western world, has been able to penetrate in people's minds remains to be discussed. I have mentioned Engels only as a curious case, probably of public ignorance, hoping to stimulate the serious study of history and the scientific approach to knowing ourselves. Now we continue our study of the "recent" origin of violence.

grains. After that, they just needed to select the plants with the largest grains to begin an *artificial selection* process that would lead to domesticated grain varieties available near people's temporary resting places, which then became *places of permanent settlement*.

The breeding of herbivorous animals could have started with the hunters who brought back to the camp the young of a female killed to give them to the children to have fun, while becoming familiar with their future prey. The women could have contributed with their experience in raising babies by building small pens and teaching children to care for the young guests until the appropriate age to become food for the band. *Artificial selection* also applied to animal breeding. Probably it concerned selecting appropriate nonaggressive behaviour and easy nutritional requirements. This led to the current races of farm animals.⁹

⁹ It is interesting to note that in normal conversations between members of the public when referring to "animals" we almost always think of those raised by us in farms, not those that exist in nature. Interesting choice because domestic animals are the artificial product of our needs. The other animals, the products of natural selection that has operated in nature, are *the real animals to know and protect* if we were aware of the importance of protecting our environment (but "domesticated" humans are not aware of that anymore). Strangely, we call them "wild" as if they were alien and dangerous variations. This note may seem an idle and useless deviation from the subject in question (the origin of violence), but it is, instead, an appropriate preparation to important conclusive concepts that we will find at the end of

3.2.3 - Cultural transfer of the inventions

The three regions in which local populations of human began inventing, *independently*, the production of food have been: the Middle East (Western Turkey and Mesopotamia) about 10,000 years ago, South China about 7,000 years ago and Central America about 5,000 years ago. The plants and animals that they domesticated were naturally different because the three environments were different: in the Middle East they used wheat (various species), sheep, and bovines, in China they used rice, pigs and birds, in Central America they used maize, turkeys and llamas.

Even before agriculture, the bands of nomadic hunter-gathering *H. sapiens* throughout the world exchanged objects and food with the system of bartering and exchanged people (male or female exogamy) to avoid diseases (now we know due to consanguinity). It was therefore obvious also to exchange agricultural products with those of hunting and gathering, as well as different cultural knowledge, such as the important discovery of the domestication of nature.

Following these active exchanges, the practice of food production spread throughout the Earth and adapted to local resources. Some cultures have not abandoned the tradition of

this chapter, when we face embarrassing questions about human nature (see Sections 9.2 and 9.3).

being nomadic combined with the breeding of easily controllable animals or have learned to follow the migrations of a single species, as in the case of the Lapps and their relationship with reindeers.

A very important scientific fact must be noticed at this point of the present short description of the human invention of violence: during the initial period of food production, *human beings continued to be nonviolent, as violence started only in the late bronze period* (see Section 3.3).

Unfortunately, sooner or later *food production has always been followed by violence*. For this reason, beginning from 5-6,000 years ago various types of violence (structural, direct and war) have pervaded almost the entire Earth. But has there really been a simple direct relationship between food production and violence? Of course not. Therefore, in the past (Giorgi, 2001, Chapter 4) we have offered a somewhat long hypothesis to describe the chain of subsequent cause and effect relationships that started from planting cereal seeds to end with two atomic bombs exploding in Japan (for a shorter version, see below Section 3.3).

Even today we are amid the same violent mechanisms of social stratification and power systems, with the illusion of truly having democracy, combined with the old and wrong beliefs about a violent human nature, with *dangerous weapons of mass*

*destruction that kill us and subtle weapons of mass distraction that make us increasingly more stupid.*¹⁰

A shorter description of the transition from food production (see above) to the invention of violence is found below in Section 3.3.

3.3 The invention of violence – An increasingly strong hypothesis

3.3.1 - Introduction

It is legitimate to ask a question: if we do not find signs of violence (see definition) in the Palaeolithic period and in contemporary "Palaeolithic" people (see Section 6), *when and*

¹⁰ NB - In the illustration of Section 3.2.1 (timeline) the initials G-C indicate **a balance** between *cultural inventions* (C) and related *minor genetic predispositions* (G) during the slow bio-**genetic** evolution of *Homo sapiens*. With the appearance of social violence **this balance has been lost**, the culture has changed quickly (upward arrow), genetics (the slow component) could not follow with different predispositions and *our brain remained Palaeolithic (nonviolent)*. Fortunately, this lack of balance manifests itself in Freud's "civilization and its discontents" (see Section 11.7 a more detailed explanation, but very different from Freud one.). The "discontent" remains, unfortunately, in various forms, such as dramatic episodes of violence against democratic institutions, especially in the north and south of the American continent (USA in 2021 and Brazil in 2023), frequent violence among citizens.

how did all forms of violence, so widespread today, arise? But this question, and subsequent scientific research, can (or will) be raised more effectively only when a significant proportion of the public and academics have stopped believing in congenital violence. Our work about the origin of violence started 22 years ago and has been discussed extensively by Giorgi (2001, chapter 4, and in his later publications). It is presented here only in summary form in the following sections to help interested readers to become aware of this topic deliberately neglected for too long.

Before starting the story of the human tragedy, i.e. the emergence of violence by cultural evolution, one aspect needs to be clarified: the sequence of causes and effects presented briefly below, is only **a scientific hypothesis**, based on ascertainable observations of evolutionary anthropology, palaeo-archeology and developmental neurobiology.¹¹ Now we can understand why

¹¹ Formulating a hypothesis is part of the classical methodology of science. In a popular presentation we consider necessary explaining here **the common sequence of steps typical of the scientific method**. Scientists proceed with *observations* (ascertainable data), which generate *questions* about them (a well-posed question is the key to good scientific research); to find an answer scientists formulate one or more *plausible hypotheses* (i.e. such that respect the observations made); the hypotheses are then *put to the test* (possible or not?) with probative experiments (in experimental laboratory research) or with further observations from other points of view (in field research). If no positive evidence in favour of a hypothesis can be found, this hypothesis should be *changed or discarded*. When

until 2001 there was a lack of interest in explaining the origin of violence: the prevailing idea of unavoidable violence (i.e. intrinsic in human nature) gave, and still gives, the illusion of already having an answer.¹² But we consider this answer as wrong (lacking scientific evidence) and *we propose here again the hypothesis of the origin of violence in the Neolithic* in the present shorter and popularised version.

In the following sections we will consider a list of new social trends that happened subsequently with the passing of time, and we will discuss the relationships between causes and effects.

3.3.2 - *The appearance of too large human settlements*

a hypothesis is repeatedly confirmed (better if by different researchers and with different methodological strategies) *it becomes a theory*. A theory, however solid it may be, *can always be questioned* by new observations. This is why *truth is not part of the baggage of a scientist*.

¹² NB: *agnostic readers can skip this note*. We observe that the pessimistic idea of human nature (inborn violence) is firmly rooted in the Old Testament (especially in the Pentateuch), while the optimistic idea (love other people) is the essence of the New Testament. In the Roman Catholic world, a cause of confusion was strangely added not long ago (perhaps during the period of Pope John-Paul II) when the two Testaments were bound together in the same book than called “Bible” and both read in Roman Catholic Churches. One day, hopefully soon, Christians will have to decide *to follow only Jesus of Nazareth and His novel teaching of nonviolence*, just for **clarity**. Jesus was born within a Jewish culture, just like Buddha was born within a Hinduist culture: that did not stop Them from innovating. Of course, Hinduism and Judaism remain good legitimate religions.

Once the social change from nomadic life to a sedentary human settlement was culturally accepted, due to the need to stay close to their own cultivated fields and animal fences, the new economic system obviously¹³ led to an increase in the number of individuals belonging to the same village, then a small city, then a large city, then ever larger settlements.¹⁴

What's wrong with living in a big city? In ancient times the court dignitaries in Babylon, on one hand, would have answered “nothing wrong”, while their slaves, on the other hand, would have said “all wrong”. But the human problem we will refer to below in Sections 3.3.4 and 3.3.5 is not just related to social stratification.

The nonviolent social behaviour of Palaeolithic men (see Section 6) was in harmony with the small dimensions of their communities: small bands that did not exceed about one hundred people. When they approached higher numbers, they

¹³ We said obviously, because the sedentary condition, the greater availability of food and the economic complexity obviously led to larger settlements.

¹⁴ In the island of Crete, for example, there are older remains of the first agricultural settlements *without external walls* (sign of cultures not yet engaged in competition and violence) and those of later periods with defensive walls. Between 7,500 and 6,000 BC. we have the settlement of Çatalhöyük in Anatolia (today's Turkey) without specific findings of weapons for war or defence walls. On the banks of the river Jordan, we find Jericho at the very early stages of agriculture. Archaeological signs indicating warfare and defensive walls appeared only in the cities of *the late Bronze age*.

separated into two smaller bands and continued separately their migrations. These small dimensions allowed them to know each other personally, which was essential for practicing solidarity and cooperation. Many aspects of the social behaviour of Palaeolithic humans have been found in the reports of anthropologists who lived for long time in the 20th century with the contemporary nomadic hunter-gatherer cultures (the contemporary Palaeolithic human beings). These cultures, currently about twenty, are the *most reliable models* to imagine how our Palaeolithic ancestors lived tens of thousands of years ago, that is *H. sapiens* of the Palaeolithic before agriculture.¹⁵

3.3.3 - The appearance of social stratification and then conscious violent strategies

The practice of agriculture and animal breeding have created new professions: men who manufacture agricultural tools, others who mount the fences in which to keep domesticated animals, masons, potters, tailors, carpenters, shoemakers, etc. At this point, most of the women have unfortunately remained associated with their traditional “gathering”, which at that point of social changes meant harvesting domesticated grasses

¹⁵ Details on the cultures of contemporary nomadic hunter-gatherers and notes on the related literature are in Bonta (1993, and 2023 in English) and Giorgi (2008), Section 3.2, “The direct study of human nature” (in Italian).

produced in the fields, as well as attending to their other traditional duties: protecting the children and feeding the family. These economic activities of women were, unfortunately, less favourable for barter exchange. But the *serious marginalization of women* was caused by other factors that were more deplorable, as we will see below.

Professional specialization led, *without a political planning*, to a social stratification never known before and surely *contrary to human nature*.

Up to this point, the list of *negative human changes* after the invention of food production can be justified as an inevitable consequence of *the size of social settlements* (from bands of a maximum of hundred people to cities of thousands of people) and of professional specialization *without the need for oppressive intentions on the part of anybody*.

Later, however, a new chain of events with cause-and-effect relationships would have led to **conscious social strategies** *based on the intention of oppressing and using violence* (Giorgi, 2001, 2008). This is an important anthropological novelty not yet recognized or discussed, simply because the origin of violence was not studied properly.

The victims of this “social novelty” have been women, who found themselves downgraded from a position of centrality (not power) to a position of inferiority by a *conscious and new*

appropriation of social power by men. For a more detailed discussion see Giorgi, 2015a).

The invention of food production was, therefore, a good idea from the point of view of nutritional efficiency and was implemented without imagining that it would have led, without a conscious intention of abuse, to *a human tragedy*, that is, to **an increase in technology accompanied by a loss of humanity**. This phenomenon was immediately called "civilization", because of the great material successes reserved to the upper social classes and transmitted to their following generations as a desirable and inevitable situation. It will be necessary to wait for the development in the discipline of Anthropology of an *ethical-professional sensitivity beyond colonialist thinking*,¹⁶ to recognize, by a minority of authors, the origin of violence and its current deleterious role in everyday life.

3.3.4 - *The appearance of power systems*

¹⁶ There were some attempts at innovation in the 1960s (for example Sibley, 1963) that were immediately silenced by the dominant cold war between capitalism and communism. New attempt by Sponsel (1996) and Giorgi (2001) were ignored in the scientific literature, until the recent "renaissance" of Anthropology led by Douglas Fry (2007, 2013) and Leslie Sponsel (2021). But there is still a lot of work to be done, especially about the difference between violence in daily life and war (see Section 9).

What could have been the most advantageous profession in the exchange economy based on bartering between products and services? We have already suggested (Giorgi, 2001 and Giorgi, 2008, chapter 4.3.3 & 4.3.4) that it may have been the profession of the astronomer. We refer to the people who, at the beginning of the Neolithic period, dedicated themselves very early to the study of the sky and mapping (as far as possible) the position of "stars" (including planets reflecting the light of a star, such as the moon). They soon distinguished the two categories of *fixed stars*, those useful to travellers for orientation, and *mobile stars*, which were useful to define the seasons. From the latter's movements, astronomers were able to build the first calendars, initially lunar calendars then solar calendars.¹⁷ These skilled naturalistic reconstructions *were of great importance* to decide when to sow and what to reap, but also know the season in which the animals migrated or reproduced. The "magicians of the stars" knew how to use this precious knowledge to their advantage, placing themselves high in the social hierarchy that was already forming in the even larger human settlements of the Middle Neolithic and continued to increase in size in the Late Neolithic.

But the most brilliant novelty introduced by "astronomers" was probably (as proposed by Giorgi, 2001, pp. 89-90) the idea that

¹⁷ From the textbooks of Anthropology, we know very ancient calendars, like the one of the lunar phases engraved on a prehistorical Mammal bone, and ancient ones, like that of the Mayan culture in Central America.

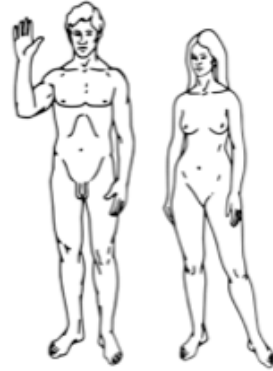
the moving stars were the seat of particular natural forces that could control the lives of human beings: in this way they invented the concept of the *celestial divinities* and declared to be able to communicate directly with them in order to have meteorological conditions favourable for agricultural activities. This involved the promotion of astronomers to a higher social category with the power that this position implied. Soon the Great Priests allied themselves with the civil leaders of the ever-larger cities, to control together that heterogeneous populations. This promoted an ever-growing situation of *social stratification and injustice*.

3.3.5 - The appearance of structural violence

We have already defined the term "violence" in Introduction; now we must remember that in this definition the key words are "members of the same species". Therefore, violence specifically concerns the human species.

Structural violence

All ideas and institutions that prevent children and adolescents to express their human potentialities



We can now consider *structural violence*¹⁸ taking into account the fact that, from this period of human bio-**cultural** evolution (Middle and Advanced Neolithic) and forward, changes in human behaviour can no longer be considered inevitable consequences of food production and the increase of dimension of human settlements, but *they would involve **conscious social strategies** aimed at exercising man-against-man violence*, that is, conscious strategies to obtain **power and richness**. Moreover, we must add that conscious and structural violence was *a cultural invention of male human being of the last 5,000 years* (Giorgi, 2015a), without

¹⁸ *Definition* – Structural violence is represented by all the ideas and institutions that prevent children and adolescents from expressing their normal human potentials (that is, expressing nonviolent social behaviour).

corresponding genetic modifications, as discussed later (Section 11.7) about *social malaise*.

Some examples of structural and cultural violence:

- a) According to the tradition of Sparta, around the tenth century BC Licurgo introduced rules of social behaviour, among which there was the obligation to raise male children out of the family from seven years on. They had to live in institutionalized educational communities that made them brave and aggressive warriors.¹⁹ *Those children were not allowed to become human beings*. In different ways we are still preventing now male kids to become normal nonviolent human beings in the 21st century.
- b) In rural and traditional areas of Pakistan, a family may be suspected of subversive activity if it insists on educating their daughter.²⁰
- c) In toy stores in Italy, in the period 2010-2015, about 40% of the items produced for boys from five years upwards were plastic weapons to play war and 90% of the objects produced for girls of the same age were dolls and miniature reproductions of household items, kitchen and female jewellery (personal research in 20 toys magazines, Province of Brescia).
- d) In Italy in 1958 the then Minister of Education Aldo Moro introduced the teaching of Civic Education in high schools: only two hours per month obligatory, but without evaluation. After

¹⁹ From Plutarch (1992) "The lives", UTET, Turin.

²⁰ UNESCO Report on Education, 2017.

numerous modifications and oversights, this teaching has almost entirely disappeared in Italy, while it was the main subject in Swiss primary schools in the years 1970-80. However, the City of Bergamo (Italy) has asked the city's schools to introduce one hour of Civic Education in the school year 2018-19.²¹

We hope that the abnormal violent social behaviours that are emerging all over the world will convince authorities to bet on civil education again.

The concepts of *structural and cultural violence* were introduced by Johan Galtung as early as the 1990s. His definition of structural violence is less radical than ours, probably because at that time human nature was not a topic of interest in Peace Studies. But in 2018 I checked my definition with Johan Galtung, and I received a favourable reaction.

3.3.6 - The appearance of direct violence

The presence of power systems in ever-larger human settlements involved more authoritarian methods for population control. The privileged minorities in power had to organize a surveillance system that would monitor the behaviour of the vast population to ensure that everyone obeyed the rules of conduct established by the authorities to maintain order in

²¹ Information found on the website of the Municipality of Bergamo (Italy) on April 26, 2018.

society. Every culture did this differently, but in all cases, it was insured by a police service.²²

Police services should not use forms of direct violence (allocating punitive measures is the job of the judiciary system) to ensure respect for the law and social order, but it seems that this practice is still tolerated even in 2023.

Furthermore, various forms of social injustice began to emerge in the populations of large Advanced Neolithic cities; it was about injustice and bullying between citizens and abuse by privileged classes towards lower classes. These latest injustices were, and still are, tolerated by the authorities, causing malaise and rebellion among citizens. In the past this malaise broke out as politically disorganized movements, or the form of riots and violent revolutions.

During the few years of Covid and war in Ukraine the world has suffered for several violent changes of government and many violent confrontations between neighbouring countries or inner rebellious regions and central governments. The United Nations are incapable to put into practice their own aim of promoting peace in the world. At the same time all countries are experiencing a sharp increase in cases of bullying, violence among sport fans, organised fights between teenaged bands, increased family violence and many shootings of gathered people by

²² A well-known episode from the Old Testament seems to confirm this hypothesis (Numbers, 25, 6-13).

mentally unstable men. Yes, male human beings are responsible of almost all the above cases of violence, *a true malaise of society*. We will discuss Freud's *malaise of civilization* in Section 11.7 and possible strategies for removing it nonviolently in Section 10.

3.3.7 - *The invention of war*

The concept of war can only be discussed within an already complex social system, that is, in a chiefdom and then in a State (Bodley, 1997). The study of war has become a subject much followed by historians, anthropologists, politicians, and diplomats; but *it has never really interested this author*. It is an epiphenomenon of structural violence in everyday life and, above all, *a violent competition between systems of power, not between persons: **an important difference***. Recently (21st century) it has confined itself to forms of bloody skirmishes deliberately delegated to Third World countries by neo-colonial states. War was discussed in more detail elsewhere (Giorgi, 2008, Sections 4.4 - 4.6). Here we simply note that those in power in the newly formed States found it convenient to start (or provoke) armed conflicts with neighbouring States to broaden their influence (and taxation) on larger territories,

sending their lower classes to death, after having "created" the fear of being attacked or invaded by external "enemies".²³

3.3.8 - *The appearance of the prophets and religions*

IMPORTANT NOTE – After a very short comment about prophets that is necessary from the historical point of view, we will be exceptionally dealing with this non-scientific topic at the end in Section 13.

One of the most interesting phenomena of human cultural evolution was the appearance of very charismatic characters who were later recognized as *prophets*.²⁴

The important fact, from the historical and anthropological point of view, is that ***the prophets appeared only after the invention of violence***, a fact apparently ignored by historians. The other important aspect, in my opinion, is that the spiritual messages of all the prophets were practically the same: "This is not how

²³ Archaeological evidence of the invention of war is found in the Bronze Age (Chalcolithic period) and Iron Age (see Section 6.3).

²⁴ *Definition*– The prophets were highly spiritual persons (or, for believers, men inspired by God) who put human beings on guard against misbehaviour or violence of all kinds and sometime provided a new moral code. They did it at different times in History and in different languages, but their message was, fundamentally, the same: "This is not the way human being should live".

human beings should live", an innovative and significant **"anthropological"** concept. The alternative instructions were, of course, different according to the different cultures and the different times, but the warning against a non-human drift was clear. One prophet was also very clear in His nonviolent message: love one another as I have loved you. We have ignored this message for 2,000 years.

3.3.9 The temporal limits of History as a discipline

Until about twenty years ago the narrative of History was limited to the last 5-6,000 years, as it was decided to refer only to documents carved on tablets, then hand-written on parchments, paper and bamboo strips and later printed on paper. The principle of intellectual ethics (see above 3.3.8) was fair enough, but it had a disadvantage: *at that time violence and war had already been invented for some time*, hence the popular saying "Since History is History, men have always killed each other" becomes *apparently correct*. From this situation, a widespread belief in the congenital violence of human beings was justified (unfortunately, it is still being justified by most people). Let us see why *this scientifically wrong idea should be changed*. Since the years 1950-60s, anthropologists have described and analysed rock art represented by mural images, painted or carved on rock or bone, and mobile statuettes. In the last twenty

years their publications have included interpretations of the meaning of Palaeolithic art; from these data it derives the possibility to imagine the social life of the ancient artists. *This has lengthened the temporal limits of the History as a discipline of at least 40,000 years* (Anati, 2004 and 2008). In fact, most of recent historical textbooks now begin with Prehistory. As an early example: Cravetto, E. ed. (2006) “Dalla Preistoria all’Antico Egitto” (“From Prehistory to Ancient Egypt”), vol 1 of the series *La Storia* (History). Mondadori, Milano. Traditionally, the books of History used to begin with what was described in *written* documents, this means about 5,000 ago. However, these “modern” works of historians never mention the lack of violence among human beings of the Palaeolithic, an embarrassing topic for modern violent societies, but ***not for us in the present work.*** This scientific novelty of historians stimulated a few Anthropologists of good will to note the essential absence of evidence of violence up to the Middle Neolithic, just as discussed in the present work. If we add the other six pieces of scientific evidence presented here on the nonviolent nature of human beings (Section 8), it would be time to abandon anachronistic wrong beliefs and work actively for the recovery of *a nonviolent*, that is *human*, society (see Sections 4 to 9, below).

4. The study of human beings as related to Peace Studies

4.1 The scientific method in Peace Studies

Peace Studies are a relatively recent field of academic studies. Although rare studies and alternative proposals to the violent solution of conflicts of interest have existed for a long time, see Kropotkin (1902) and Sibley (1963), the first Peace Research Institute in Oslo (PRIO) was founded by Johan Galtung only in 1959 and was directed by him until 1970. He also founded the first academic journal (*Journal of Peace Research*) in 1964 and received the first chair of Peace Studies from the University of Oslo in 1969.

From the beginning this field of study has attracted scholars with a humanistic or sociological preparation and has had as immediate aim to lay the foundations of alternative methods to violence especially offered to the world of diplomacy and political science. Apart from the present author, only rarely Peace Studies have attracted scholars with a scientific background.²⁵ It was mostly the case of physicists who, after the development of the atomic war industry, proved the dangers of this new weapon²⁶ or military officers who explained how it is

²⁵ Other notable examples are Antonino Drago (physicist) and David P. Barash (biologist).

²⁶ Salio G. and Drago, A. (1984) *Science and war - Physicists against nuclear war* (in Italian). Gruppo Abele editions, Turin (Italy).

impossible to fight a nuclear war or demonstrated the non-credibility of the so-called "nuclear deterrent" (Green, 2010).

4.2 - The wrong idea of natural violence in the literature

The idea that human beings are violent by nature (a congenital behavioural feature) has been encouraged by a rich and consistent literature. Alongside this pessimistic view of human nature, however, there is also a literature that supports an optimistic view about the same topic. Given the brevity and the popular character of this work, we refer readers to a more detailed presentation already made elsewhere (Giorgi, 2001, pp. 9-12 and 2008, pp. 17-25) and we present here only a list of known cases.

The well-known expression "*every man is a wolf against man*", always attributed to Thomas Hobbes (1588-1679), actually belong to the Roman playwright Plautus (*wolf est homo homini*, in "Asinara", A. II, sc IV, v. 495) and was taken up by several authors (Erasmus da Rotterdam, Francis Bacon, etc) before Hobbes, who considered man "in nature" an egoist who sometimes behaved in a friendly way only out of fear of retaliation. Then we have Herbert Spencer (1820-1903), an unreliable pseudo-scientist, and Thomas Huxley (1825-1895), an able Darwinist biologist who shared the pessimistic vision, as

well as Konrad Lorenz (1903-1989) ethologist and Edward Wilson, founder of Sociobiology. Among popular writers, Robert Ardrey and Erich Harth have been successful in spreading the same pessimism among readers.

In favour of *an optimistic view of human nature* we can list Alexievich Kropotkin (1842-1921) Russian early anthropologist and revolutionary anarchist, Erich Fromm (1900-1980) psychologist, Ashley Montagu (1905-1999) anthropologist, the subscribers of the Seville Declaration (see Giorgi 2001 and 2008, Section 4.1.2), Lesly Sponsel anthropologist, Bruce Bonta first editor of the "Peaceful Societies" website, Douglas P. Fry anthropologist, and the present author.

5. The study of human beings

5.1 How to classify living beings

In this Section 5 we consider a methodological but important question.

Lately the biologists have become very good in defining the different living forms (species) and in proposing complicated phylogenetic (i.e., evolutionary) classifications of plants and animals. To agree about these complicated classifications of living forms (see the "systematic" part of Zoology and Botany textbooks), scholars have had to decide the criteria to be applied

to place an individual within a given *species* and then the criteria for grouping various species within a *genus* and then various genus within a *family*, and then an *order*, a *class*, etc.

When studying a particular living animal, the zoologist must consider its anatomical description, its geographical distribution, its feeding habits, its individual (or social) behaviour and its method of reproduction, at least, to place that animal inside a given species. *This package of characteristics could be considered as the "nature" of that species.* In this way zoologists do not hesitate to define the nature of a zebra or a fruit fly or a mountain gorilla, for example.

But when asked *to define human nature*, i.e., the nature of the species *Homo sapiens*, zoologists hesitate and prefer not to do so.²⁷ The justification generally given is that there are too many cultures (about 6,000 of them) to meet the criteria used for other animal species.

Until about 20 years ago, the anthropologists, the professionals who study human beings, did not even consider the question of human nature. They continued to pursue the demands of colonial and post-colonial powers by devoting themselves exclusively to the *differences* between human cultures, not to the *common traits* that unite all human beings. But from 2006 there

²⁷ For centuries philosophers, on the contrary, have written extensively about human nature, but without reaching a clear point of agreement.

has been the awakening of a substantial minority of anthropologists and other researchers interested in *Homo sapiens* and the first titles of books appeared with the term "human nature", as discussed below.

5.2 Moving from a shallow vision, to flying high to understand who we are.

About twenty years ago, two university teachers, Leslie E. Sponsel (Anthropology) and Piero P. Giorgi (Neuroscience and Peace Studies), were practically the only ones to support the idea of a *nonviolent human nature* (see Bibliography mentioned below) with several scientific evidence. They did not limit themselves stating that human beings are capable of both violent and nonviolent behaviour, the position of most scholars (a rather obvious fact found even in daily chronicles). Both Sponsel and Giorgi were aware of the pioneering work of anthropologists Petr Kropotkin (1902) and Ashley Montagu (1957), but also of new discoveries made later in anthropology and neurobiology, as will be explained later in this book. But the difference between then (first half of the twentieth century) and now (second half of the twentieth century and beginning of the third millennium) also depends on new important *social implications of scientific research* about human beings (see ref. 1).

- a) We are living in a period of *profound social malaise* (see Section 11.7).
- b) If we want to repair this malaise, we must *radically change the way we live*.
- c) To begin doing so do we must *know who we are*.²⁸
- d) To understand who we are, we cannot look around, here and now, because we²⁹ have precisely been the cause of what we call here the "great human tragedy", normally called "civilization" (see Section 6.3).
- e) *We must therefore stop flying low* crawling on the ground with a short-sighted (or antiquated) vision of "history" of the world, ***but we must start flying high and moving in time and space.***

We will do just that in the rest of this book.

²⁸ The famous saying "know yourself" (Latin: *nosce te ipsum*) normally attributed to Socrates, referring however to an individual (not to our species), may have been said for the first time by other six Greek sages.

²⁹ The term "us" is often used too vaguely, without specifying the meaning. Sometimes it means "we Europeans", or "we Americans", or "we Westerners", or "we Chinese", etc. In this work "*we*" simply means *Homo sapiens* with the only specification of time, especially before or after the invention of food production (see Section 3).

6 – *Rock art*

In the last two centuries paleoanthropologists have gradually discovered a very large number of artistic expressions produced by human beings who lived between 50,000 and 10.000 years ago. These are decorations made by *Homo sapiens*, images drawn on rocks protected from the weather or carved on rocks exposed to rain and wind or carved on animal bones. Palaeolithic *Homo sapiens* also made small statuettes designed to be transported during their normal nomadic life.

These artistic manifestations represent an important evolutionary development of our species, so important to induce anthropologists to declare the appearance of the so-called "modern man". Sometimes this later (from about 50,000 years ago) form of *H. sapiens* called "anatomically modern man" to indicate the lack of small archaic characteristics of the skeleton that we had carried with us ever since our appearance 300.000 years ago in East Africa.³⁰

³⁰ The author of this book written for the general public is aware of the limited public knowledge of the evolution of *Homo sapiens*. For the particularly curious reader, I suggest three titles of easy popular books: Alice Roberts "Evolution- The Human Story" (2018) second edition, DK Penguin Random House – Chris Stringer & Peter Andrews "The Complete World of Human Evolution" (2011) revised edition, Thames & Hudson Ltd – For

The other important aspect of early human art concerns its universality: it is found in all five continents and the prehistoric research centres have accumulated millions of images that experts can recognize as typical of certain regions or cultures. But the most important information that can be obtained from Palaeolithic art is that *before the Middle Neolithic, human beings were **essentially nonviolent***, as image of man's violence against man are essentially absent. Therefore, we are faced with an initial and very long human nonviolence (scientifically controllable from 50,000 years ago to 10,000 years ago and logically imaginable from the beginning of our species 300,000 years ago). These are very long periods before about 5-6,000 years ago (Bronze Age in the Middle East) *when violence begins to be clearly documented in various ways and in increasing intensity.*

It should not be necessary, but we point out that this is not a scientific study of mathematics, or physics or chemistry. In physics, for example, it is enough that an experiment cannot be confirmed once to question a theory. In biology, however, variability exists ("luckily", emphasized Charles Darwin) as well as exceptions, special cases, etc. In this discipline phenomena and theories are established on strong statistical bases. For this reason, we must conclude that in the Palaeolithic era we were

those who can read Italian, see also Fiorenzo Facchini "Le origini dell'Uomo e l'evoluzione culturale" (2006), Jaca Book, Milano.

essentially nonviolent, (see below chapter 6.1) just as we must admit that in the last approximately 6-7,000 years (beginning in the Middle East)³¹ we have been *essentially violent*, even though we coexisted with rare nonviolent people like Francis of Assisi, Rita of Cascia, Don Bosco, Gandhi, Mother Teresa of Calcutta and many, many others.

6.1 Nonviolence in Palaeolithic art

Palaeolithic art represents what was important in the daily life of the people of the Middle and Upper Palaeolithic, that is, of people in small communities that lived by *nomadic hunting and gathering* between 50,000 and 10,000 years ago. After years of simple research, collection and description of images, scholars have begun the more interesting, but difficult, part of *the interpretation of those works of art*. Hunting scenes³² have been

³¹ When we talk about the origin of violence, we cannot use precise historical times, but we must refer to local historical or cultural periods. This is because the production of food (the first involuntary cause) was invented in three different regions of the Earth independently and in three different periods (Middle East 10,000 years ago, South China 7,000 years ago, Central America 5,000 years ago) and because violence appeared later because of the time necessary for the diffusion of the practice of food production (calculated to be about one km per year).

³² One should remember that hunting is not a form of violence, which refers to *a damaging behaviour applied to a member of*

recognized, also the presence of species of animals no longer present now in the same regions or even of extinct species but traceable in the fossil record of the corresponding periods. Other recognized themes include the collection of fruits and vegetables, fishing, sexual relations, birth, and imaginary characters probably associated with beliefs of mysterious natural forces (spirits).

This author has benefited from the collection of rock art images from over the world present in the Centre of Prehistoric Studies of Capo di Ponte (Valcamonica, Brescia, Italy), then directed by Prof. Emmanuel Anati. This is one of the international centres recognized by UNESCO. After months of research, I have not been able to identify any scene of violence, that is man against man, except for some scenes of difficult interpretation in the rock art of Australia, but very few in one specific region (North Territory).

It is fair to say that there are some publications that describe *supposed* scenes of violence (man-against- man) in the Palaeolithic rock art, questioning the absence of violence in that

the same species (see definition of Violence in Introduction). The hunter (animal or human) commits, in fact, only an act of *alimentary aggression*, that is necessary because *all animals must kill* (plants or animals) to live, while plants can feed on the sun's energy (photosynthesis), save the very rare cases of carnivore plants.

period. These rare cases have been mentioned and criticized by Giorgi (2008, pp. 72-74) and by Fry (2013).

6.2 The appearance of violence in Neolithic art

As already discussed above, until a few decades ago (even now by many historians) it was believed that the discipline of History began about 5,000 years ago, that is, when the writing appeared. Now **human history starts much earlier**, that is, about 40,000 years, thanks to recent studies on Palaeolithic art and after studies of the interpretation of images (for example, Anati, 2008). Therefore, Peace Studies owe two important scientific proofs to Palaeoanthropology: *the evidence of the ancient nonviolent nature of Palaeolithic human beings* (see above) and *evidence of the recent origin of direct violence* (see below). About the origin of violence, a particularly significant document was published by Anati (2004, pp. 124-125, for English edition see 2008). It is a summary picture, reproduced in the figure below, of the images carved on rock by the ancient inhabitants of Valcamonica (Alpine region in the province of Brescia, Italy) representing human beings (left column), hunted animals (central column) and weapons used only to hunt (up to the Middle Neolithic period, right column), but also weapons to carry out *direct violence* (daggers, from the Chalcolithic period,

third strip), which is completed with swords in the subsequent Bronze period (fourth strip), up to the Iron period when Etruscans and then Romans arrived in the valley (fifth & sixth strips).

In other cultures, as well (Greece, for example) the appearance of direct violence and *war was immediately represented artistically on pottery (vases and plates)* with images of warriors and military heroes. The same happened in all the so-called "great civilizations", where we are still experiencing now violence and war in its fullness.

Luckily *violence is a purely cultural invention (i.e., not written in our genes, see Section 7)*. ***It is therefore enough to disobey to the orders of the power systems and regain our true nonviolent humanity*** (see Section 10).

Origin of violence (war) – Valcamonica

Chalcolithic



It is interesting how, after having contributed so decisively to the evidence of nonviolent human nature, in 2004 Prof. Emmanuel Anati was still considering the possibility of human violence in Prehistory, by signing the only publication I know where the two co-authors interpret the same scientific data in the opposite way (Giorgi and Anati, 2004). In this paper Anati suggested that the absence of violence in prehistoric art does not prove that it was not part of their daily life. Theoretically this is possible, but then why the representation of violence *has erupted dramatically in all forms of art* as soon as direct violence and war were practiced, as we know from the History and Archaeology of several cultures?

See also Section 6.4 below: the final decisive evidence.

As part of the discussion on the appearance of direct violence and war, it is interesting to note a recent study³³ that would have shown the presence of a dramatic event responsible for halving the number of human males (but not females) in Africa, Europe, and Asia during the Neolithic period. The most probable cause could be war, which may have been invented at relatively different historical times in different cultures during the Neolithic.

6.3 The importance of contemporary nomadic hunter-gatherer cultures

The discipline of anthropology also offers a further important contribution for the idea of nonviolent human nature with the *studies on contemporary nomadic hunter-gatherer cultures*, a rich amount of data that **power systems**³⁴ have so far succeeded in

³³ Tian Chen Zeng, Alan J. Aw, Marcus W. Feldman. "Cultural hitchhiking and competition between patrilineal kin groups explain the post-Neolithic Y-chromosome bottleneck" *Nature Communications*, 2018; 9 (1) DOI: 10.1038 / s41467-018-04375-6, reported by Gioia Alfonsi in *Pikaia*, Portal of Evolution, 3 July 2018.

³⁴ *Definition* – The term "**power systems**" is used quite rarely in the academic world. The present author does **not** identify them with our official governments, but *with a small number of very rich individuals who try very hard to remain unknown*. But they can be identified by the fact that they invest only in the most

keeping excluded from social media, obviously because *their nonviolence is embarrassing for modern violent cultures*.

In the twentieth century several cultural anthropologists have lived for many years with these cultures and have published interesting data in academic papers and books in which they explain in detail their lifestyle and their social behaviour. For an initial general information and key specific references, see Bonta, (1993). These works are very important because the cultures in question, driven in antiquity by belligerent ethnic groups to isolated areas in Africa, Asia and the Arctic regions,³⁵

profitable business areas and, characteristically, they also invest in most popular publishing enterprises involved in *mass media and passive TV entertainment very often offering violent and sexy films*. This allow them to manipulate, as hidden puppeteers, a given society in order to promote and maintain the following long list of **modern impediments to nonviolence**: individuality, ignorance about human beings, competitiveness, violence, military solutions to international hostility, consumption, stupid and noisy entertainment, corruption, use of drugs, passive entertainment, love of crowded city life, political and ethnic hostility, eating too much, use of meat, love of smart holidays, ignorance about the environment, ignorance about nuclear weapons, fear about supposed enemies, ignorance about the pleasure of life in nature. This long list of negative human features translate into advantages for the few at the top and disadvantages for an increasing struggling majority. Conclusion: **resuming normal human nonviolence is becoming very urgent**. How to obtain this urgent result? Disobeying to the power systems described above and learning about human nature, that is, *knowing who we are*.

³⁵ In the arctic regions live the Eskimos (Inuit). This writer believes that also the Australian desert Aborigines (specifically

give us *the best social and behavioural model* to understand the *social models of nonviolent Palaeolithic human beings*. They do not produce food, if not indirectly and recently, and they have the right dimension of settlements (very small) and social behaviour (nonviolence) that can be derived from Palaeolithic rock art and Paleo-archaeological data **of living human beings still living like Palaeolithic people**.

It is very likely that these hidden cultures represent the lifestyle of our Palaeolithic ancestors before the "great human tragedy", that is, the invention of violence. Their existence is also important because *it renders **redundant** the discussions about how interpreting the lack of violence in Palaeolithic rock art* (see Section 6.2).

before the European invasion of their land) should be included among the nonviolent nomadic hunter-gatherers, but the study of their original cultures needs more research work, particularly *research free of colonial prejudices*.

A specific literature reports the existence of *empathy*,³⁶ *solidarity*,³⁷ and *nonviolent solutions to conflicts of interest and spirituality* (not religion). Below in Section 7 we will discuss about these important aspects.

Bruce Bonta has established the *Peaceful Cultures* website where the necessary information about contemporary Palaeolithic nonviolent cultures is found. Now the same website is kept up to date regularly by the Department of Anthropology, University of North Carolina, Greensboro.³⁸

³⁶ *Definition* – Empathy represents a spontaneous attitude of sympathy of a child or an adult towards other human beings. But empathy is acquired only if during the critical period of early childhood (about the first two years) this person has a normal physical contact with the mother. These relationships include being held against the mother's body, being caressed, and receiving smiles and sweet words, as well as being breastfed for at least two years. This treatment causes the baby's brain to produce the hormone oxytocin, a necessary condition for inducing the formation of nervous connections related to social empathic behaviour. These important physiological relationships were discovered and explained by Dr. Joseph W. Prescott in the Seventies and Eighties, but those involved in early childhood have so far ignored it. See Section 11.2 and 11.3.

³⁷ *Definition* – Solidarity is a complex social behaviour that is *acquired* from childhood if one lives in a nonviolent culture (social model). It regards the spontaneous tendency to help those in difficulty, without hoping to obtain any personal advantage.

³⁸ Bruce D. Bonte, born in New Jersey in 1941, sadly died in 2021. Bruce had just completed his last book about peaceful peoples, which has been published posthumously by the Centre

A couple of these cultures concern modern nonviolent communities inspired by religious principles. But the others are small *nomadic hunter-gatherer cultures* that **do not** produce food (agriculture and animal breeding) therefore their cultures are very probably of ancient pre-Neolithic origin. Unfortunately, the governments that administer their regions put pressure on them to abandon their lifestyle and become "civilized", that is, to produce food. These governments do so for erroneous ideas of social ethics or for economic convenience, as in the case of the Bushmen (Kung San) of the Kahalari desert (Africa), whose presence disturbs the developing safari industry.

As with other information on nonviolence, *the public is "protected" by power systems from knowing* these cultures and their importance to understand the nonviolent nature of human beings (see also note 35).

7. Human nonviolence also proven by neuroscience

7.1 Introduction

The Anthropological evidence in support of the nonviolent nature of human beings, already presented above, could be

for Global Nonkilling of Honolulu (Bonta, 2023). Bruce has left an important heritage for us.

enough to defend this idea. We summarize: a) the long association of *H. sapiens* with nonviolence before the invention of food production suggests that *this was the critical factor (along with the high level of sociality) of the emergence and differentiation of our species, from the other many species of Hominins*; b) the absence of violence in Palaeolithic art from 50,000 to 6,000 years ago is itself very significant; c) the nonviolence of contemporary nomadic hunter-gatherer cultures (the "contemporary Palaeolithic humans") cannot be a coincidence and practically resolves any discussion about nonviolence in Palaeolithic rock art ; d) the correlation between food production and the subsequent appearance of various forms of violence in all three regions of the Earth (Middle East, South China and Central America), far from each other therefore independently, also supports the hypothesis of nonviolence as *a constituent feature of human bio-cultural evolution* and its recent loss as a purely cultural event, therefore modifiable.

Nevertheless, **we need a neurobiological explanation** of how two forms of very complex social behaviours, *nonviolence* present for long time at the beginning of our species and *violence* appeared only in the last 6,000 years or so, could be *faithfully transmitted from one generation to another*. In fact, the research works in neuroscience, already mentioned initially in this work, Doidge (2007), agree that on *Homo sapiens* genetic information cannot define, by itself, a complex social behaviour.

The introduction of this section 7 will provide the necessary neurobiological basis concerning the postnatal definition of social behaviour in *Homo sapiens*, as the audience of the present popular text is likely not conversant with neuroscience and genetics.

In addition to the above, we must point out a further advantage of our *multidisciplinary research strategy*. In scientific research, when two or more disciplines produce pieces of evidence that converge to support the same working hypothesis, *it is precisely the independent convergence of very different natural events that particularly strengthens the hypothesis in question*.

7.2 The bio-cultural evolution of *H. sapiens*

Here we are discussing about evolution. This word has become used and accepted since the second half of the 19th century, so we must use it to avoid confusion, even if it is not ideal.³⁹

³⁹ The unfortunate term "evolution" was not used by Jean-Baptiste Lamarck in 1809 nor by Charles Darwin in 1859 (they used the term "transmutation"). "Evolution" was invented in 1867 by Herber Spencer, an unreliable pseudo-scientist, but able political influencer. The term evolution is unsuitable because it implies an *improving change*, a concept contrary to the modern theory of *adaptive changes* (even the degenerative ones, as in parasitism) that take place in living forms because of changes in the environment. But "evolution" has been adopted in biology for more than a century and not using it would now create confusion.

Two processes of adaptive changes have brought about, 300,000 years ago, the new species *H. sapiens* (us) from a variety of forms of Hominins that existed in Africa a few hundred thousand years ago: it was a set of genetic modifications (in our DNA) and important cultural modifications, from which the term *bio-cultural evolution*, used here with the obvious relevance given to the cultural aspect. As we shall see, both are related to biological changes, but **culture is transmitted from one generation to the next differently from genetic heredity.**

The purely biological evolution (the genetical one) is typical of simple animal forms, especially those that produce numerous fertilized eggs, which are then abandoned in nature without any parental assistance after embryonic development. Bio-**cultural** evolution is typical of the most complex animal forms (some Birds and some Mammals), especially those with a limited offspring, which is protected and nourished after foetal development even for prolonged periods to allow the social (or environmental) integration of the offspring. This is typically the case of social Mammals, like some species of Carnivores and Primates, in which a very limited offspring (one or two children) **spends a long time together with their mother** soon after birth. During this period *the mother transmits to her offspring important cultural information necessary for survival.*

In humans, this cultural transfer becomes a long and complex process, which initially (first 2-3 years) must (or should) ideally

be carried out by the mother and later (3-6 years) also by the family members (father and siblings) and gradually also by the extended family and the local community (uncles, cousins and neighbours), up to the stage of institutional education offered by the particular culture in question (schools, public cultural events, traditional social aggregations).

7.3 A pause for a brief programmatic consideration

At this point perhaps it is necessary to justify the need to acquire the anthropological and neurobiological knowledge proposed here, by anticipating a very important aspect of the subsequent practical part (suitable social changes).

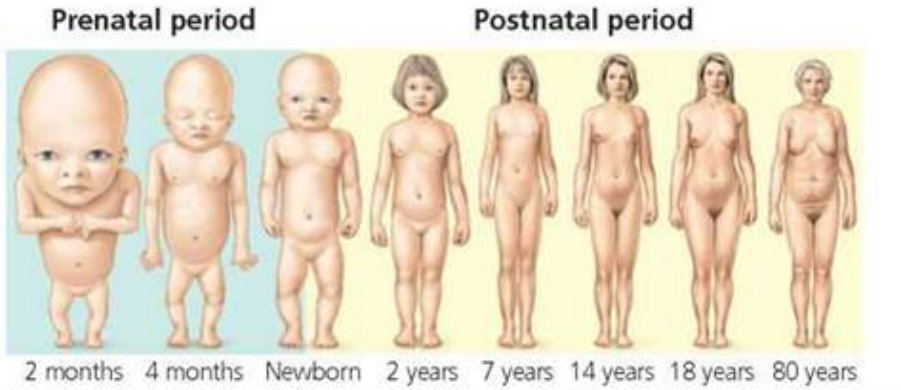
As it will be seen later, the nonviolent future proposed in this book will be realized initially (and perhaps above all) *at the level of early childhood and completed at the level of teenagers..* That is to say that the success of the necessary social changes will depend precisely on the motivation and preparation of the "new" parents and the "new" social models offered to early childhood. Furthermore, the beginning of this difficult recovery of our normal nonviolent humanity will also depend on the ability of recovering *the human communities and places of human*

aggregation that have been eliminated in the current **false "civilization"** of competition and individualism.

It is hoped that this anticipation will add motivation to readers not accustomed to scientific explorations about the lifestyle of our ancestors (Section 6) and about the development of our children's brains (below), because these two aspects are interconnected. We also have the ambition of *awakening the interest in scientific divulgation*, currently overwhelmed by the *narrative literature* imposed by the greed of financial gain of the industry of passive entertainment, especially TV and cinema, but also printed matter, as we will see later in Section 10.4.1.

7.4 The development of the human brain

The foetus, the newly born human being and young children are known to have a particularly large head compared to the body, unlike the situation of older children and adults, as shown in the figure below regarding the pre- and post-natal development of women. Please note: the absolute dimensions of the whole body do not respect those of age.

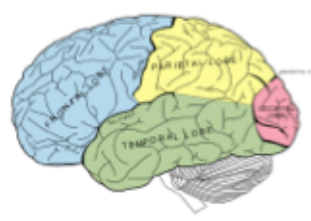


One may therefore ask: what is the evolutionary advantage of this early growth of the brain, and what is the functional state of the brain in early childhood? We will see below that the relative "big brain" of the foetus and the newly born baby correspond to a process of growth and functional definition that is *completely different from the other organ systems* (skeleton, muscles, digestive system, etc.).

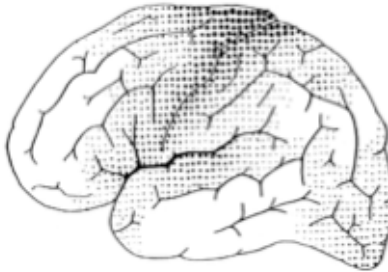
7.4.1 The structure of the human brain

To understand the unique aspects of brain growth the reader must first acquire a minimum of knowledge of a few aspects of brain structures, as represented in the figure below.

Postnatal definition of brain and behaviour



Frontal lobe



The first illustration at the top represents the lateral left view of the adult human brain (preserved in formalin) with underneath the *cerebellum* and the last short portion of the *brain stem*. *The third illustration at the top* is a drawing of the same brain but outlining the subdivision in different coloured regions (lobes) as named by neuroanatomists: the frontal lobe (bleu), the temporal lobe (green), the parietal lobe (yellow), and the occipital lobe (red). Again, below are the cerebellum (lined in black and white) and the brain stem (white).

Good news: in this popular presentation we will not make use again of all the scientific terms named to describe the above illustrations, except for *the frontal lobe*, an important region of

the brain of *Homo sapiens* and often mentioned in our subsequent discussions.

The central illustration at the top shows the representation of two neurons of the cerebellum (Purkinje cells, very numerous in the cerebellar cortex), chosen by us as a general description of neurons (the functional cells in the nervous system) present in the nervous systems of all animals.⁴⁰ The individual shape varies with their function, but they all have a *cell body*, here is the large globous structure at the centre of the illustration, with many *dendritic branches* on the top (the part of the neuron that receive contacts from other neurons) and a thin line departing from underneath, called *axon*, with a few thin branches (the part of the neuron that send contacts to other neurons). The size of neuronal bodies varies between 10 and 100 microns (a millimetre contains 1,000 microns), while the distance covered by the axon can be very short in local circuitries or up to 1 or 2 metres in sensory or motor neurons of larger animals.

Good news: in this popular presentation we will not make use again of all the scientific terms named to describe this illustration only to satisfy your possible curiosity, with the

⁴⁰ It became possible to see the structure of neurons under the microscope as shown here only at the end of the 19th century when Camillo Golgi (1843-1926) discovered the new silver nitrate stain technique, which was later improved by Santiago Ramon y Cajal (they shared the 1906 Nobel Prize in Physiology and Medicine for this contribution).

exception of *neuronal cell body and axon*, often mentioned in our subsequent discussions.

The illustration at the bottom is indeed very important for our study. It represents the brain of a newly born baby with dark dots in the regions that contain functioning neurons and light dots in regions where neurons begin to mature but are not functioning yet. To note that the frontal lobe, which in the adult is dealing with social interactions, is mostly without functional neurons at birth, except for the area at the border between the frontal lobe and the parietal lobe needed for sensory-motor relationships with the mother and for breast suckling (see Sections 7.7).

Important conclusions and some advice to the reader: 1)

Behavioural traits present at birth are the only instincts existing in human beings.⁴¹ 2) The limited role of instincts in human beings has been naturally selected to allow babies to adapt to the specific social characteristic (culture) of the community in which

⁴¹ We anticipate here the few instincts present at birth in humans (mentioned in the illustration of this Section 7.4.1): searching breast and nipple, sucking, swallowing, and needing a physical contact with mother. This last instinct is unfortunately neglected in “civilized” culture, as discussed later. Another important and neglected instinct is the baby’s capacity of swimming around one year of age (see Morgan, 2011), probably derived from a partial adaptation to the sea coastal environment during the evolution and migration of the various species of the genus *Homo*.

they are born. 3) The same limitation of instincts has also helped Palaeolithic *H. sapiens* to maintain nonviolence for many tens of thousands of years and it also explains how Late Neolithic male humans have been able to introduce recently new forms of violent behaviour and, unfortunately, to maintain them for a few thousands of years (until now). *These important phenomena must be kept in mind while continuing to read this book.*

7.4.2. The unique aspects of the development of the human nervous system

The development of the human nervous system is characterized by *four peculiar and important phenomena*:

a) Towards the end of foetal development and *at birth, the brain has many more nerve cells (neurons) than an adult brain*, but they are small, embryonic, and **functionally not differentiated**. In practice this means that *most of these brain cells have not yet established functional connections between each other*, i.e., most of the nerve circuits (the true functional aspect of the brain) *are not yet defined*. Importantly, other organ systems of the body have their functions basically established at birth and they need only to increase in size. This unique characteristic of the brain

(better, of the nervous system) is of capital importance, but it is normally not known by the public.

b) The subsequent development of the brain (first months and first years after birth) is characterized by *a progressive decrease in the number of neurons* (through a normal process of cell death), while those that remain **form functional connections with each other** and undergo an increase in their body size.

c) Therefore, selective and physiological death of neurons occurs because of their lack of connection with other neurons. In fact, *the survival of neuron A depends on a protein called nerve growth factor*, (NGF) produced by another neuron B only when this receives a functional contact from neuron A. This stable functional contact is called *synapses*. In practice, such mechanism of formation of the nervous circuits is not pre-established by a program of genetic or epigenetic type. In fact, nerve circuitries are too complex to be defined by the simple genetic code that is designed to define only the amino acid sequence of proteins, but by an ingenious system that, starting from partial and exuberant contacts (in excessive numbers), defines circuits and functions because of the consolidation only of connections that correspond to useful functions, therefore *based on practical effects and functional validations*. It is a sort of "natural selection" of circuits and neurons, regulated above all by successful connections and by a functional feed-back (NGF mentioned above).

d) The selection (or loss) of neurons during brain development is also compensated by both the increase in size of the surviving neurons, and the significant increase in number of the other type of cells of the nervous system: *the accessory cells that protect and nourish neurons*.⁴²

7.4.3 A pause to appreciate the importance of our very incomplete brain at birth

*The fact that the brain of newborn humans is not yet complete from the functional point of view is **the most important information** of this neurobiological study.* As we shall see, such unique aspect can explain the cultural diversity of human beings and it can also explain how nonviolence and violence have been passed on from generation to generation for relatively long periods. It can also explain how we could regain a normal nonviolent society if we decide to participate in the necessary re-

⁴² The accessory cells or *cells of the glia* are: the *astrocytes*, which transfer the nourishment (only oxygen, glucose and, perhaps, lipids) from cerebral blood capillaries to neurons, the *oligodendrocytes*, which produce the insulating sheath (called *myelin*, similar in function to the plastic insulation of the electric cable operating in our homes) of the neuronal extensions (axons) that transmit the electrical impulses, and *microcytes or microglia*, which act as macrophages in the brain (see Giorgi, 2001, Section 2.1.10). In the adult brain the relationship between neurons and accessory cells (the glia) is probably 1 to 10, but such calculation is difficult and there are differences between brain regions and the brain of different species of Vertebrates.

acquisition of our normal nonviolent behaviour. **All very important issues for our future.**

7.5 The post-natal development of the human brain and the nervous system

We will see below how the newly born girl/boy has *critical periods* within which she/he can **acquire** (*not learn*, see Section 7.8) locomotion on two legs, speech while using one or more languages and manual skill through the opposition of the thumb. This is done between the age of one year and about three years, but *only if she/he has available the **example and the help** of adults*, that is, if she/he lives in a human community that loves and assists her/him (see Section 8.2).

The definition of social behaviour is instead a process of maturation (definition) of the brain much more complex and long, in the period between about 5 and 15 years.⁴³ It is about

⁴³ It is interesting to note that in the past (from antiquity to the Middle Ages) a man was considered an adult person at 15-16 years of age and a woman when aged 13-14 years. This was decided with reference to their physiological sexual maturity. Instead, the current trend is to prolong the family dependency period, thus making people increasingly insecure and fragile because of the growing gap between potential maturity and actual maturity. This has important political consequences. This topic will be further developed later (Section 10.5).

understanding how people interact within a social system that has rules, traditions, local habits, personal conveniences but also *duties of solidarity and cooperation*. This mechanism was selected and well defined during the bio-**cultural** evolution of early human beings (pre-agricultural period) *who were nonviolent*. However, during the last 5-6.000 year we invented **violence**, a recent, purely cultural change that has made us very different (violent) from our pre-agricultural ancestor, as discussed later.

The fact that the definition of social behaviour occurs through the phenomenon of the imitation of adults by children and adolescents, explains the existence of about *6,000 different human cultures in the world* and **within the same species**. The cultural transmission of social behaviour from one generation to the next is so precise that the different cultures remain the same for a long time and we are *tempted to think* that it depends on genetic transmission, although an elementary knowledge of biology is enough to understand how impossible this is,⁴⁴ as already partially explained.

We have therefore found the answer of how nonviolence (for at least 50,000 years and perhaps for much longer) and violence

⁴⁴ In fact, human beings belonging to different cultures (or ethnic groups) have basically the same genes, with small variations that are only responsible of *physical differences*, not the *behavioural or cultural ones*. This important difference will be discussed again within this Section.

(during only the last 5-6,000 years) have been handed down from one generation to the next. **Neither one is defined by genes**, except vague predispositions (see Section 7.6).

1) *Nonviolence is part of human nature, through a long bio-cultural mechanism of evolution, i.e., a few genetic changes and many important cultural changes transmitted to next generations through a different mechanism).*

2) *Violence is not part of human nature* and is a recent and purely cultural invention of Late Neolithic–Bronze Age human beings, therefore changeable. This latter event has also been carried out by male individuals of our species. **This is another evidence of a purely cultural change.**

N.B. – The above two short statements summarise the very aim and the thesis of this publication.

Scientific evidence derived from *Anthropological research* has already been provided in Section 6. Now we are dealing with scientific evidence derived from *Neurobiological research*.

But one may ask: is it possible that genes have nothing to do with social behaviour? No, but we will see how the genes could indeed have a small role, but their role can be too weak and overcome by personal motivation (see Section 7.6 below), or it can practically be made ineffective by powerful postnatal conditioning exercised by the power systems (see note 35) in current violent cultures.

7.6 The concept of genetic predisposition

It is possible that a child is born with certain genetic characteristic that makes her/him predisposed to a given social activity (hence the term “genetic predisposition”). It is not about the presence or not of a region of the brain, or of a certain type of neurons. It should be *only the level of metabolic production of a certain type of neurotransmitter*, that is, the mode of communication between certain types of neurons that we all have. Individual differences in a genetic predisposition depend only on the metabolic level of that neurotransmitter.⁴⁵

To help understanding such a mechanism, we make a practical example: the predisposition to music, that is, playing a musical instrument.

The music conservatory student with that predisposition to play a musical instrument will learn a given piece of music *sooner* than his companion with a somewhat lower predisposition. But

⁴⁵ Neurotransmitters are chemicals produced by neurons and used to communicate with other neurons with which they form *a specific neural circuit* related to a given specific function. The number of different neurotransmitters discovered to date is about fifty, but the main ones are only ten. Since the functional nerve circuits are thousands, it is obvious that the relationship of specificity between neurotransmitter and function is established on **anatomical**, non-chemical, bases. This is the cause of the many unwanted side effects in neuro-pharmacological treatments that act as contrasting agents of a given neurotransmitter, that is they are agonists circulating systemically in the blood.

if his friend has enough motivation in learning music, *by practicing more will learn to play the same piece just as well.*

Therefore, the possible genetic predisposition does not change the result, but only **the time** dedicated by a student to obtain the required level of skill. The difference in motivation thus compensates the possible small genetic differences. Since a girl/boy does not enrol in the conservatory if she/he is not motivated, genetic predisposition does play a minor role (time invested for proper learning).

The reader will now understand how the *exceptional social importance* given to competition, money, and power in modern violent societies eventually forces children born with a natural (human) nonviolent nature to become, instead, a competitive, individualistic, and violent citizen. This “unnatural” obligation may be the cause of that “malaise of civilisation” correctly identified by Sigmund Freud but wrongly explained by him, as discussed near the end of the book (Section 11.7).

7.7 The important relationship between mother and her new-born baby

As we have in part anticipated and will also discuss later (Sections 10.6 and 10.7), the relationship between mother and her new-born baby is very important for the child *to become a*

human being and a socially competent person, that is, equipped with empathy, capacity for solidarity and cooperation. Certainly, these human characteristics (observed in contemporary nonviolent cultures, as already indicated in Section 6.4) are refined even later in life through appropriate social models, but the initial and important bases depend on the relationship with the mother in the first years of life.

These conditions do not represent secondary details in the process of raising children. As we will see in Sections 9.2 and 9.3, they are about the embarrassing questions of *whether we are still human beings today or not, and whether we will be able recover our normal nonviolent humanity or not*.

7.8 Difference between “acquisition” and “learning” in children

Unfortunately, nowadays it is the common tendency of parents to deal mainly with the material needs of early childhood (food, protection from the physical environment, rest and fun). If a young child behaves in an anti-social way, one tends to say: "He is only a child; when he will go to school, he will learn how to behave ". This is a serious error, because important fundamental requirements necessary to undertake in the right direction the path towards becoming a human being, i.e., an appropriate

member for a human community, are established above all in the years between 0 and 4 years, *that is, before school time*. And there is a clear scientific reason for this.

During the early childhood the new-born **constructs his own brain** to become a human being, that is, *establishes the basic nervous circuits to walk, talk, use hands, and interact empathically with other human beings*. These are all human behaviours that **are acquired**, not learned, in this critical period. Later the brain will develop the circuits of memory and associative relationships in the cerebral cortex (Section 7.5) and will have to use a slower and more complicated mechanism **to learn** new social knowledge and behaviour.⁴⁶

In early childhood we should therefore be treated in the right way, and we also need to be presented with suitable human models to achieve these very important results in such a critical period.

It is important to stress that in the cultures of contemporary nomadic hunter-gatherers, as we have already discussed in Section 6.4, *early children are effectively treated in this way by*

⁴⁶ Important example: a 2-years-child *acquires* in 1-2 years one language (or two if his/her parents use different languages), simply because he/she in that same period *is constructing his/her pathway for speech*. A high school student will *learn* very slowly and only partially a foreign language because he/she has already the brain pathway for speech and must use complex and slow memory brain mechanism to learn the new language (or any other subject he/she is studying at school).

their mothers and their band (see also Section 10.7.2). Babies need to be treated in a "natural" way, that is according to the millennial rules naturally selected during the *human bio-cultural evolution* (see Section 11). In fact, in those cultures *women keep their early babies always closed to their bodies*. It is therefore interesting to notice that in those cultures new-born babies cry very rarely: perhaps the often crying of our current "civilised" new-born babies is the *first evidence of the social malaise* that we will have to prevent in the future, if we want to become nonviolent again, that is, **human beings**.

8. The importance of the scientific evidence of our nonviolent nature

8.1 The strength of multidisciplinary research

As anticipated at the end of Section 7.1, when two or more disciplines produce evidence that converges to support the same working hypothesis, it is precisely *the independent convergence of very different natural events that particularly strengthens the hypothesis in question*. In the figure below we have a complete

overview of the scientific evidence supporting the working hypothesis of the nonviolent nature of human beings.

We use the reductive term "working hypothesis", not for lack of confidence about the idea in question, but for prudence because the interest of some anthropologists and neurobiologists regarding *the question of human nature* is quite recent (last fifteen years approximately) and has become strengthened only after the 2014 Leiden conference,⁴⁷ although building up of new evidence proceeds by degrees but well. For example, some are inclined to consider violence and nonviolence as a social behaviour to be studied scientifically for the purpose of reintroducing nonviolence among human beings (Sponsel, 1996 and 2015; Giorgi, 2001, 2008, 2010, 2020), others prefer to limit the same innovative hypothesis only to the case of war (Fry

⁴⁷ From 19 to 24 May 2014, a group of researchers in anthropology, animal behaviour and sociology gathered at the Lorentz Centre of the University of Leiden (Holland) to review the conclusion of the Declaration of Seville formulated in 1986 ("Man is not violent by nature") in the light of the most recent scientific data (for example, Fry, 2013). The title of the meeting was "The bio-social bases for nonkilling and nonviolent behaviour". The Seville Declaration was confirmed, was corrected in its aspects of scientific arrogance, and was extended to the possible consideration of a nonviolent human (bio-cultural) nature, but restricted particularly to **war**, almost **ignoring structural and direct violence** in daily life. The present writer, who was present and active on that 2014 occasion, perhaps remains the most explicit author concerning the need to include **all types of violence** that label as *not human* the so-called "civilised" society.

2007, 2013a, 2015). More recent and diversified themes can be found in the following references: Fry, D. P. (2011), Fry, D. P. (2012), Fry, D. P. (2013b), Fry, D. P. (2018), Fry, D. P. and Souillac, G. (2013), Fry, D. P. and Souillac, G. (2017).

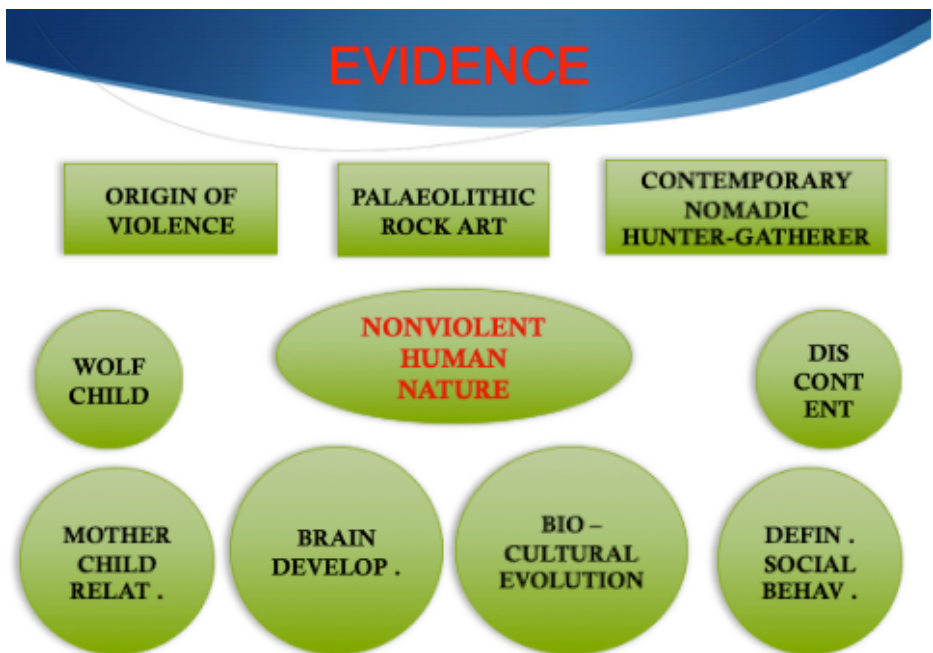
However, it is fair to admit that scholars who have totally abandoned the old, but "politically correct", idea of congenital violence in human beings⁴⁸ are still a minority. In the public who has benefited from higher studies and has a certain humanistic and spiritual (non-religious) sensitivity, the idea of congenital violence is losing ground (see Section 4.2).

This writer is currently certain of the nonviolent human nature (in the bio-**cultural**, non-genetic sense), although in the sciences *one must always be ready to modify one's own conviction* if new contrary evidence become available.

⁴⁸ We use the term "politically correct idea" because it is not uncommon that expressing trust in a nonviolent human nature can still generate negative or derisive reactions. Some may also fear that this position could jeopardize one's career in certain conservative environments, even at university. Perhaps there is also a terminological misunderstanding. The term "human nature" is often referred to the genetic make-up in the current humanistic and scientific environment, which are oppressed by the influence of the bio-medical-pharmaceutical industry that has the convenience (and political influence) to make people believe that our social behaviour is mainly defined by our genes. We feel obliged to add the adjective "bio-**cultural**" evolution of social behaviour, but reluctantly because it should be obvious and not necessary in the case of *H. sapiens*.

Now it is time to remind ***all the scientific types of evidence available in our study of human nature*** (figure below).

#) From the discipline of Anthropology (rectangles above) we have three types of evidence: those from the Prehistoric evidence concerning the *origin of violence*, those from the Palaeolithic evidence concerning *rock art and nonviolence*, and those from *contemporary nomadic hunter-gatherer cultures and nonviolence* (already discussed in Section 6).



#) From the discipline of **Neurobiology**, we have four types of evidence (round balloons below): the effect of the sensory *relationship between mother and child*, the unique aspects of the

human brain development, the mechanisms of the *human bio-cultural* evolution, and the mechanisms of definition of social behaviour (already discussed in Section 7).

There are two additional types of special and multidisciplinary evidence, which are peripheral to the two previous groups but with very effective implications (two lateral balloons in the middle):

#) The social implications of the exceptional cases of the so-called *wolf-children* and very neglected children on the left hand-side (see Section 8.2) and, on the right hand-site, a very interesting question posed by Sigmund Freud about the *discontent* of civilisation, unfortunately resolved by him in the wrong way as discussed briefly below (Sections 8.2c) and in more details later (Section 11.7).

8.2 Special evidence – Extreme but relevant cases

a) The so-called wolf-children

About 50 years ago the subject of the so-called wolf-children was still part of legends and was mentioned with caution by scholars. In fact, the talented anthropologist Ashley Montagu (1957, pp. 240-245) declared that the related stories "cannot be accepted as true".

Since then, the cases disclosed, and the accuracy of the information collected have increased considerably. The sad cases of *wolf-children and seriously neglected children* are now the object of historical and academic investigation (Ludovico, 2006). Let's see some of them.

The first case reported and well documented was that of the "wild boy" found in 1798 in the woods of Aveyron (France), who was called Victor and looked after for five years by the French physician Jean Itard (see Itard, 1802). Itard then went down in history as the founder of studies on deaf and dumb children, while his "wild boy" learned to behave in a polite manner at the table but never learned to speak, because (now we know, Sections 7.5–7.8) the critical period for the *acquisition* of language had been missed.

In 1933, the experimental psychologist Jorge Ramirez found in a forest of Salvador a boy of about 5 years (maybe less), with long hairs, naked, with a curved posture, who vocalized like a monkey. Called Tarzancito, he immediately learned to repeat some words but without understanding their meaning; but later he learned a little to read and write.

For the sake of brevity, we limit our neurobiological reasoning only to the severely neglected children (more modern and better documented), i.e. those deprived of the necessary social contribution *to define their brains in a normal human way*, as discussed below.

b) Children abandoned in the city or very neglected

Anna was born in 1932 in Pennsylvania (USA) as a second illegitimate daughter and unwanted by her parents. She was found tied to a chair in a dark attic without ever being washed; she was malnourished, had severe muscular atrophy, was immobile, without expression, did not speak and did not react to stimuli. After being brought to an institution she improved slightly but died at the age of six.

Sujit Kumar was found that was still a young boy in 1979, after his mother committed suicide when he was just walking, and his father had segregated him under the house where he kept chickens. They called him the "boy-hen of Fiji" because he could not speak but made sounds like a hen and did not interact with people. He lived more than 20 years in institutions but never learned to speak.

Vanya Yudin was found in Russia in 2008 at the age of seven in a room with birdcages severely neglected by the mother who did not speak to him. He could make the same noises of birds and waved his arms like wings.

Natasha was found in Zabaykalsky Krai (Russia) in 2009 at the age of 5, after having lived her entire childhood in a room with dogs. She could not speak and when those who found her left the room shutting the door, she threw herself at the door barking.

The study of abandoned children in nature or seriously neglected leads us to the uncomfortable consideration that without verbal language, which we acquire from the social environment during a critical and early period of development, *the most important characteristic of our species is lost*, that is, the possibility of communicating verbally, thinking in an abstract way and behaving like a human being. *These cases tell us that we become human beings after birth, we are not born as human being: **this is the essential concept of human bio-cultural evolution.***

c) The discontent of civilization according to Sigmund Freud

In 1930 Sigmund Freud published the book “*Das Unbehagen in der Kultur*” (literally meaning “the uneasiness in civilization”). The English version (“Civilization and its discontents”) was published the same year.

He had the brilliant idea of asking *why are we “discontent”?*

Practically, he attempted a difficult sociological analysis. *The right question was finally asked.* But then Freud came to the wrong conclusion under the effect of the believe, well diffused in his time, that we are congenitally violent. **See Section 11.7** for a more detailed discussion about Sigmund Freud and human nature.

9. Five thousand years of cultural transmission of violence

9.1 Good news and bad news about the possibility of recovering nonviolence

Readers will have understood that the time has come (in this book and in future socio-political programs) to abandon all the beautiful stories proposed to us when we were kids (our savage ancestors, the greatness of “civilisation” and progress, the normality of our current social behaviour, etc.) to embrace, instead, a very different view of *Homo sapiens*, therefore *a new strategy for the re-humanization of society*. In practice, it is a matter of raising our head from a myopic vision, that is, limited in time (now) and in space (here), and **fly high**, like the seagull Jonathan Livingston of Richard D. Bach.⁴⁹

⁴⁹ Bach, R. (1970) "Johnathan Livingston seagull". Macmillan, London. Bach's seagull refuses to scratch through the garbage of the city and wants to fly high in the sky and catch fish in the sea, as a *real seagull* should do. We too must become again *real human beings* (i.e. nonviolent). See also figure in Section 1.4.

Our proposal will be to **fly high**, that is, to move in time (from at least 50,000 years ago to today) and in space (in the whole Earth). The time has come to ask ourselves if the society in which we have lived in the last 5,000 years (the so-called *civilisation*) has been *a healthy and normal* product of human social evolution or *the product of wrong choices* made or imposed (and accepted) when we invented violence and power systems (the wrong development we have called *the human tragedy*, see Section 3).

In 2020 I published in Italy the book entitled “La rivoluzione nonviolenta” (The nonviolent revolution, see References at the end), practically the same topic of the present book written in English, which also contains recent research contributions. The use of the term “revolution” was bitterly criticised by colleagues who obviously referred to traditional *violent revolutions*, which never led to anything useful. Obviously, I was referring to ***a radical change in lifestyle*** to recover the normal nonviolent social behaviour of *Homo sapiens* before the recent *human tragedy* of inventing violence and power systems. This obvious interpretation was, instead, understood by the numerous participants at my several conferences held to present the book. In fact, practically every person or couple bought a copy of the book, forcing the publisher to rush to a second edition of the book.

Let us now consider the two types of news mentioned in the title of this Section 9.1. First the good one.

It is true that we are living in an essentially competitive and violent society, which generates a deep sense of malaise in us, as Freud rightly observed, but wrongly explained (see Section 11.7). But this violence was invented by human beings themselves ⁵⁰ "only" about 5-6,000 years ago, and it was a purely cultural change, that is, not registered in our genes, so *we are not condemned to continue it as if it was **an inevitable genetic destiny***.

The second piece of news is the bad one, or rather the worrying one.

To recover the normal nonviolent social behaviour of human beings (see Section 10) we must organize several radical changes in our social behaviour (a kind of social reparation). Unfortunately, *adult humans are very reluctant to change their lifestyle* and the process of change will be slow and difficult, partly because it will be based on nonviolent methods. In Section 10 we will consider realistic proposals to rediscover and put into practice our normal (nonviolent) human nature. Interestingly, the likely protagonists will not be (in my opinion) the adult

⁵⁰ I say "human beings" to keep the discussion as simple as possible. Violence was imposed by a minority of **male** human beings, as we will discuss later.

citizens, but their children: *teenagers and adolescents*, for several reasons, as we will see.

9.2 An embarrassing comparison between Palaeolithic man and "civilised" man

Thanks to studies begun in the twentieth century by cultural anthropologists (see Section 6), we know quite well the behaviour and social structure of about twenty contemporary nomadic hunter-gatherer cultures, which *represent the best model of social behaviour at our disposal of Palaeolithic human beings*, with obvious differences due to cultural variability, to different physical environments and to the temporal distance of thousands of years. Researcher Bruce Bonta has continued their monitoring through the "Peaceful people" website (<https://cas.uab.edu/peacefulsocieties/>) which began in 2004.

Social behaviour

Palaeolithic vs Contemporary “Civilisations”

◆ Empathy	◆ vs. Suspicion
◆ Solidarity	◆ vs Egoism
◆ Cooperation	◆ vs Competition
◆ Nonviolent solutions	◆ vs Violent solutions
◆ Spirituality	◆ vs Materialism
	◆ HUMAN ?

Especially based on what we know of ancient peaceful cultures still living on Earth, but also from what Palaeolithic rock art has handed down to us, we can compare the nonviolence that has characterized the lifestyle of human beings for at least 50,000 years (but probably also for the entire period of our existence on Earth, i.e., 200,000 years ago) with the violence dominating modern “civilisation”.

9.3 Are we still human beings?

Based on the table above (Section 9.2), it is logical to ask the question whether the so-called “civilised” societies of the last

5,000 years, including the so-called "great ancient civilizations" and modern states, have been or *are (now) composed of human beings*. In fact, *Suspicion, Egoism, Competition, Violent Solutions (to conflicts of interest) and Materialism* have replaced, in most of the human population, *Empathy, Solidarity, Cooperation, Nonviolent Solutions and Spirituality*.

I am very sad to make such an unusual (and terrible) observation, which is however supported by evidence.

We recall that the list of qualities on the left (reconstructed with scientific methods) has been recognized as fundamental to define human nature by several scholars, see Fry (2013) and the conference he organized in Leiden in 2014 (Sections 6, 7, 8), although most anthropologists and psychologists continue, unfortunately, to have doubts about the very possibility of defining human nature.

When confronted with the question "are we naturally violent or nonviolent?", most people simply state that human beings are capable of both social behaviours. But this consideration, by itself correct, only serves to avoid the real question, which does not refer to the known behavioural potentialities, but **asks whether during human evolution natural selection has favoured nonviolent or violent behaviour**. Such a choice, which would have defined our species, *could only come about through a bio-cultural mechanism of evolution, with culture as the main evolutionary tool*. This is explained by the fact (Doidge,

2007) that genes cannot define human social behaviour (too complex), which can only be defined through post-natal social experiences that determine specific nerve connections during the early years of life, as already explained in Sections 7.6-7.8 and discussed again in Section 10. In simple words: *the human brain is defined after birth, not conditioned by congenital (genetic) characteristics.*

As a scientist, the present author is inclined to respect available scientific evidence, not philosophical "believes" or political conveniences. Therefore, the evidence that in the last 5,000 years we have lost (**but only culturally**) the characteristics of social behaviour typical of *Homo sapiens*. Those characteristics allowed our ancestors to avoid extinction for 100,000 years (perhaps even 200,000 years) and characterize still now our species. As already discussed, (Section 3.3), the "human tragedy" of losing after birth our normal nonviolence occurred after the invention of food production (three times in three regions of the Earth too distant for cultural transfer, Section 3.2.3). Initially they came about through obvious changes as the consequences of an invention that was useful and beneficial. Later, after the emergence of the systems of power, *the "human tragedy" was completed through the **conscious intention** of a privileged minority (of men) that found advantages in exploiting the majority by weakening them with lack of resources and depriving them of information.*

How a species can change its natural behaviour so radically it can be seen in higher Mammals captured when of young age and reared in a zoo, especially those species belonging to Carnivores or Primates that need long periods of learning with their mother. Almost everyone knows that a baby lion, for example, raised in a zoo after killing his mother, will never survive in the wild when freed as an adult. *This is because the specific strategies and abilities used in hunting are not defined by genes (= are not instincts).*

The example of animals (Primates and Carnivores) raised in cages without a mother is a cruel experimental exercise carried out by human beings. *The transformation of a nonviolent species (H. sapiens) into a violent species was, instead, a natural experiment made possible by an otherwise useful human invention: the production of food.* The unfortunately widespread idea of congenital human violence has prevented scholars from asking the question: *when and how did violence in human social behaviour emerge?* Some years ago, the present writer proposed a hypothesis to explain the possible different steps from nonviolence to violence (Giorgi, 2001, chapter 4, Giorgi 2008, chapter 4) and discussed them during many academic presentations *without being challenged or receiving any alternative proposal to this hypothesis.*

As a matter of fact, a certain consensus on nonviolent human nature for now involves only a minority of anthropologists and,

as far as I know, only a neurobiologist (the present writer). Since the present scientific evidence is easily understood even by an average schooled person, perhaps the interested public will be convinced of the "recent" (and purely cultural) emergence of violence and will be able to use this information for reverse strategies in different locality of the world **to initiate the re-humanization of the current violent human societies**. For a while most academics will persist in the security of the traditional consensus (that is the "politically correct" inevitable violence), instead of daring to explore new ideas that appear logical and promising.⁵¹

9.4 Is it possible to eliminate structural violence from our society?

We would not engage in such a complex and ambitious program if we had some doubts about its possibility of realization, in addition to the ethical conviction of its necessity. However, the distinction must be made between the quality of a new idea and

⁵¹ The slowness with which the academic world of science accepts new ideas is well known and can be justified by the need not to contaminate knowledge with excesses of fantasy. Even in the past, numerous researchers and scientists have found themselves in the need to dare and risk marginalisation. Some well-known examples: Galileo Galilei, Jean Baptiste Lamarck, Charles Darwin, Guglielmo Marconi, Albert Einstein, Maria Montessori, etc.

the practical difficulties of its application in a complex society and, above all, in a society controlled by systems of power. In fact, the systems of power find their motivation and strength in *personal interests*, not in *the idea of the common good*, and in short-term visions compatible with political rhythms, not with the need of improving the well-being of citizens, without mentioning the preservation of the species. The present work, on the other hand, is motivated by ensuring health and happiness to the children of our children and to the great-grandchildren of our great-grandchildren. Unfortunately, every scholar who analyses the consequences of today's social behaviour⁵² in an objective (scientific) way must extrapolate it to a rather pessimistic near future (dystopian vision). By living in such a way, the human species could become extinct in a fairly short time, due to the *unsustainable level of violence of man-against-man and man-against-environment* (see Section 11). We trust future generations to have the ability and courage to engage in **the nonviolent change in social behaviour proposed by this work.**

⁵² We refer, of course, to industrialized cultures. On the other hand, the so-called "developing" cultures seem to try in every way to reach the same "successes" (better, mistakes) of the industrialized ones, which does not bode well for the future.

10. The radical change

From a violent society to a nonviolent (human) society

10. 1 Introduction

We have already anticipated above (end of Section 8.3) that violence within society and against the environment could soon cause the extinction of our species if maintained at the current unsustainable levels (see further discussed in Section 11). This situation of urgency, about which the mass media are carefully keeping us uninformed, justifies two equally urgent reparatory actions:

*a) a capillary program of information on our nonviolent origins and on the "human tragedy" that has been unintentionally started (independently three times in the world) during the Late Neolithic after the invention of the production of food and consciously consolidated by the systems of power that emerged in too large and stratified human settlements. **This has already been discussed above in this work.***

b) a radical change of lifestyle that we should start to implement as soon as possible, but in the right way: without violence (through the right treatment of the new-borns, the right formal education and the correct models of social behaviour to offered

to young people), *slowly* (during at least two or three generations), *legally* (respecting local laws) and *locally* (at the level of small cities, not globally), then transmitting it laterally to nearby communities through cultural transmission and imitation, just as it happened for the transmission of violence when was invented by us recently from about 5,000 years ago. **This change, so radical, but also obvious and necessary for our survival, is discussed below.**

10.2 World change or local change?

We often hear the cry "**peace in the world**" when demonstrations of support for nonviolence or opposition against war and violence are organized. It is certainly a good thing to remember how war is the most stupid activity imaginable for humanity, an activity that only serves the interests of a small minority of power systems or certain specialised industries: the millions of people who die following a "modern" war are mainly peasants, workers, and poor civilians. The same is said of violence and oppression by minorities in power against weak layers of society (typically after a military cup).

But considering peace initiatives as effective throughout the world is utterly naive, if one thinks of the world cultural diversity (about 6,000 different cultures) and of the diversity of potential

local strategies and resources to accomplish the complicated, though desirable, project of nonviolence.⁵³

We consider these initiatives for "peace in the world" useful to keep alive a common desire, but practical projects in that direction would be much more effective if organised in a much, much smaller territory. For example, a small city (about 10-20,000 inhabitants) could make a socio-political choice (through a democratic process of information-education-planning) to decide *to become a city without violence* and write a note at the beginning of the municipal territory, for example, "Castelfiorino - Nonviolent City".⁵⁴ Guests who come to the city would receive a

⁵³ It should be noted that marches and nonviolent demonstrations for *local social justice* issues are very often prohibited or violently repressed in the name of "public order", while similar demonstrations for world peace are generally permitted, encouraged, and publicized. The present writer explains this difference with the fact that the first ones (local) disturb precise and tangible interests, while the ones referring to the whole world are so unreal, as just explained, that the power systems do not perceive them as dangerous. Encouraging them represents, therefore, a *shrewd weapon of mass distraction*, nothing else.

⁵⁴ As in a recent past, some cities in Italy announced, for example, "Castelfiorino - De-nuclearized City". With the difference that such a declaration did not correspond to any real measure of change. In the case we mentioned (Castelfiorino - Nonviolent City), the declaration will be made after a shared public consultation and a concrete, collegial beginning of important changes in the direction of nonviolence and social justice, something that would disturb and weaken local power systems.

short booklet explaining how to behave in a developing nonviolent city. The children who live in Castelfiorino would be taught that people in their city behave very differently from that of nearby cities, and at school one would explain in a simple way the reason and the advantages of this choice.⁵⁵ It is clear that *a family alone could not even start a process of nonviolent change, a school could not do it too, while a neighbourhood or a section of a large municipality could try*, but they would have many problems, because they would depend on services provided by the city administration.⁵⁶

After a few decades (or two, three generations, depending on the diligence with which the program is applied), these cities, few but well known for their diversity, could proudly show interesting statistics about petty crime, health, education, drug use, disputes between neighbours and within apartment buildings, violence against women, mutual solidarity, thefts, suicides, and the quality of the environment. *In practice, the citizens of a nonviolent city would be happier, healthier, and*

⁵⁵ A similar explanation is already given to the children of certain religious communities (the Amish, for example) who have a very particular lifestyle, different from the general culture of the country hosting them.

⁵⁶ IMPORTANT – In 2018, a project of social promotion of the type suggested above was launched in the city of Milan (Italy) with the name of *HUMANZONE: a network to safeguard the new generations*. This was organised at Milan3, a subdivision of the City of Milan.

richer.⁵⁷ At this point the neighbouring cities will have to ask what advantage there is to continue obeying the subliminal orders of their oppressors-exploiters (the commercial-media system in particular) and will begin the consultation process mentioned above.⁵⁸

Slowly, but gradually faster with the passage of time, the cultural novelty of nonviolence will spread to nearby territories to cover the State, that of other States where the same process had probably already started.

It is interesting to note that *another cultural novelty, violence, radially spread almost all over the world about 5-6,000 years ago, starting from three distant points of innovation: the Middle East, Southern China and Central America (see Section 3.3). The difference was that at that time the diffusion took place through the production of food, an advantageous innovation not*

⁵⁷ The reference to wealth may seem strange, but to practice a competitive and violent lifestyle entails a lot more expenses than living in an empathetic, supportive, and cooperative culture.

⁵⁸ It is interesting to realize that the radical but nonviolent change proposed in this work *perhaps does not involve "fighting" the forces currently responsible for the structural and cultural violence* that causes the malaise of society (the power systems and the commercial-media complex). This writer hypothesizes that *it will be enough **not to obey** the useless or harmful novelties proposed by the mass-media* without fear of criticism from the obedient majority. This strategy should automatically take away the foundations from selfish power systems. Hoping to be right, *I will always advise using constructive disobedience, instead of ignorant obedience.*

consciously associable with its harmful consequences: increase in the size of human settlements, social stratification, forms of power and exploitation of the weakest. It is hoped, therefore, that the recovery of nonviolence (that is, the normal human characteristic of our species) goes through the same process, but to the opposite direction of the "human tragedy" of 5,000 years ago, that we have already discussed. This time the transformation should be much shorter *thanks to the awareness of who we are*, the modern means of communication and the clear damage (human and environmental) already brought about by violence.

In the sections that follow we will take into consideration more precise aspects of the recovery of humanity and dignity in question, always taking into account how *useless at this time would be to go into too much detail*, because every community that wants to engage in this exciting and necessary cultural novelty will have to do it according to the particular criteria chosen by its citizens and by using the particular resources (material and cultural) available in their city. In Section 10.9 the possible strategies of change in the different political systems will be briefly discussed.

10.3 The theoretical and practical method suggested by Johan Galtung

Before venturing into the practical part of this work as suggested above, it is only proper to pay homage to the masters who inspired and enriched my peace & conflict studies.



Johan Vincent Galtung (born in Norway in 1930) is one of the fathers of Peace Studies, as an academic field of studies and as practical proposals to promote peace. After several months of collaboration at the Universities of Hawaii (at Manoa) and of Bologna, the present writer considers him his Master from the methodological

point of view, with minor differences, of course, regarding individual ideas.

After a lifetime of theoretical and practical innovations in peace studies and countless awards all over the world, Johan became the creator of "Transcend Media Service" (solution-oriented peace journalism) a very interesting blog. the most authoritative source of information on Peace.

Just as most peace researchers, Johan is especially interested in armed conflicts, their solutions and prevention. His best-known book is "Peace by peaceful means" (1996), Sage Publications.

The important concepts of *structural violence and cultural violence*, *the difference between negative peace and positive peace*⁵⁹ and *the triangle of peace* are due to Galtung. His general method is the search for the satisfaction of both parties in conflict, but mediated by a third party, and the need to respect the primary and democratic needs and social justice of people to prevent violence.

An important lesson I received from Johan Galtung concerning the nonviolent solution of socio-political problems is that we need to consider three different approaches: *short-term solutions* (those necessary for the moment, but which will not prevent the problem from recurring), *medium-term solutions* (those that are a little more effective, but still not resolving the problem) and *long-term solutions* (those that deal with root causes and prevent the repetition of the problem).⁶⁰ Galtung also teaches that the

⁵⁹ *Definition* – A *negative peace* program deals with the interruption and/or punishment of all forms of violence (necessary but insufficient intervention in the short term), while a *positive peace* program deals with the prevention of all forms of violence and war (effective intervention in the long term).

⁶⁰ Note that politicians and government institutions deal only with short-term solutions, the simple but only palliative ones that give the impression to citizens that the government is

three solutions *must be put in place all three together*, without waiting for the effect of one before applying the next one. It will therefore be this method that we consider in this work.

In this context I must also pay tribute to three other persons that have guided me *during my study of violence and nonviolence*.

Ralph V. Summy (died in 2018) a colleague at the University of Queensland, showed me the way and offered to me a valuable example at the beginning of my nonviolent adventure in Australia in the years 1980s.

Leslie E. Sponsel (University of Hawaii, at Manoa) and **Douglas P. Fry** (University of North Carolina, Greensboro) are holding my hand in this final fatigue of my career. Thank you.

10.4 Adults and short-term solutions

In the current 21st century, adults are, even more than in the past, very reluctant to change their lifestyle. This age group (about 30-85 years old) will not be our primary target for a

interested in their problems. These solutions can also be implemented within four years, before the next elections. Therefore, the timing of politics is often too short for intelligent and effective solutions. This is just one of the limits of democracy. Another one is the political ignorance (incompetence) of citizens and often of politicians themselves. Another one is the diffuse corruption among politicians, especially in States with weak democracies.

nonviolent educational program. Instead, adults will be the object of an information program *to make them simply aware about how we were before the Neolithic (nonviolent H. sapiens) and how we have been transformed by 6,000 years of violence.* (see figure in Section 9.2). It is hoped, in this way, that *they will encourage* their children and grandchildren to access four new innovative tools for nonviolence: a different relationship between mothers and their new-borns, nonviolent post-natal social models, nonviolent formal education and active participation in nonviolent changes in their own community.

Short-term solutions for ADULTS

- ◆ They have well established life styles, rigid minds and prejudices. They are very reluctant to change their own life style.
- ◆ They understand the advantages of nonviolence, but they are sceptical about social changes.
- ◆ With the exceptions of personal **REVELATIONS**, results are very limited



But before going into any details about teenagers and children, we should discuss *two important aspects of today's lifestyle*

(sections 10.4.1 and 10.4.2), which are part of the lives of adults but, unfortunately, also of children and adolescents. The mass-media seems to ignore these very aspects, while the power systems probably subsidise them.

10.4.1 Fiction, violent narrative and passive entertainment

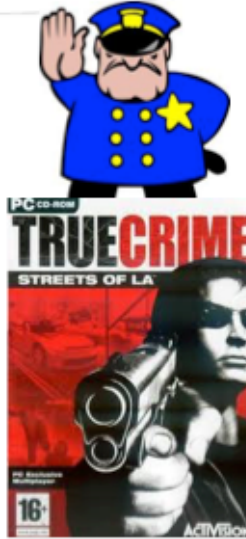
You may have noticed the current trend that sees books of fiction, compared to non-fiction books, progressively increase in bookstores, especially in English-speaking countries. In the newspapers, then, we often see titles that promise new "discoveries", especially in social life and social behaviour, to be then faced with **a novel or a film**, instead of scientific or sociological research. Narrative is therefore becoming a pseudo-scientific language to convey ideas and attitudes concerning social conditions. Together with this intellectual ambiguity, there is more generally an exponential increase of narrative offered to the public. It seems obvious to me (but I believe there is no critical research in this field) that we are drugging ourselves with an escape from everyday reality through a dangerous number of untrue stories that are offered as novels and films. A dangerous situation, because the brain suffers in the continuous process of going out of reality and then returning to reality, only to search again for an escape as soon as possible. A further danger: the production of fiction can easily be manipulated by

power systems (remember, not governments) to manipulate people's ideas according to the plans (money and power) of a very small minority.

It is true, our ancestors, even recently, gathered (usually in the evening and near the fire, or in the stable) to tell stories, but attention: not every day, then *it was an **active** pastime* because everyone told a story, and importantly those stories had an ethical or symbolic meaning (practically, they were educational). These apparently “fictional” productions represented personal creativity and an important cultural link for the community. All positive aspects.

We, exploited consumers of 2023, find ourselves in front of a page read by us all alone or in front of a screen sitting in silence, even if “in company with others” equally trapped in their individualism in the TV room or in the movie theatre. But then, we should ask an important question: where do we accumulate all those stories (one or more films a day) in our brains? How do they contribute to our ideas and our personality? And we have not yet considered **important qualitative and ethical aspects**.

Violent passive entertainment



The ethical problem mentioned above concerns the fact that the great majority of the stories we accumulate in our brains belong to the genres of "horror", "crime", "war", "great accidents and catastrophes", "police" (with mysteries, legal courts, hospitals, and prisons), "family tragedies", etc.

Here is the question, almost never asked in the media, about **the reason why we expose ourselves daily to so much fictional violence**. It is a voluntary self-administration of a huge dose of violence, after which we return to our "family joys", and then plunge again into blood, guns and knives, then return to school or to work, and then return as soon as possible to terrifying monsters, horrendous wars, crazy killers, and a lot of fear.

To respect the brevity of this work, I move soon to offering a possible explanation. The reader can choose another one if he/she wants.

Adrenaline is a hormone secreted by the adrenal gland located above the kidney, which induces necessary changes in physiology that are useful in times of stress or fear to prepare our body to adopt a suitable quick reaction: for example, fighting or fleeing. At normal levels, adrenaline has generally beneficial effects on the functioning of the body (muscles, blood circulation, heartbeat, etc.).

But the lifestyle in modern countries is such that the opportunities to be scared or challenged do not materialize often and this decreases the normal level of adrenaline in the blood. This can cause a physiological malaise or malfunction of certain metabolic parameters. As a result, we, disturbed by a predictable and boring life, *look for exciting but artificial experiences: the fictions of violent narrative*. Unfortunately, adrenaline, like most stimulating substances, *generates addiction*, therefore a growing need for greater levels of the substance, therefore more impressive fictional scenes. This explains the increase in level of induced fear that occurs in modern films (more horror, blood, fictional exciting dangers, etc.).

All of this can also be related to the phenomenon of mirror neurons, discussed below.

10.4.2 Mirror neurons

A recent discovery of the research group of Prof. Giacomo Rizzolatti (University of Parma, Italy, research in Neuroscience) was the existence and function of "mirror neurons".

It was initially observed that when a Primate (a monkey or a human being) sees another individual perform a motor operation, certain neurons in his/her brain, associated with the cognitive motor neurons, are activated *as if to perform* the same function, without however the body of the observer had to perform such movement. This phenomenon can be interpreted as evidence of the existence of empathy among human beings, which seems to go against recent social trends regarding individualism and selfishness. For a discussion see Rizzolatti & Vozza (2007).

This writer wonders about what reaction the mirror neurons of cinema viewers (passive pastime) have when they look at a scene of violence, which is unfortunately very frequent (Section 10.4.1). If circuits of similar motor neurons are activated in the brain of the immobile spectator, the poor cognitive brain must repeat thousands of killings, massacres, tortures that a good person should never commit. Where are these memories stored? Could they have an effect of desensitization to violence, until the acceptance as a normal component of real life? Could they resurface from the unconscious into moments of stress and

manifest themselves in the form of an inappropriate motor activity, then called "impulse"⁶¹ by the psychiatrist called on TV news to explain true violent acts and unexpected killings that worry the public?

We leave the readers to *meditate about violence in fiction and violence in real life*.

10.5 Adolescents and medium-term solutions

In the period of our life between 14-15 and 19-20 years, we complete the human project that initiated much earlier, when our life began as "a flash in the eyes of our parents" and proceeded into a long list of events concerning their love life and our development inside and outside our mother's body. In that terminal period we become a woman or a man (gender), after being born simply as a girl or a boy (sex). *Gender maturity is a cultural masterpiece* made of surprises, imitations, pains,

⁶¹ Of course, "impulses" or "instincts" do not exist in the human brain, because social behaviour is acquired after birth (see Section 7). But possible stored memories of violent fictional media (through reacting mirror neurons, perhaps, see Section 10.4.2) could be responsible of criminal actions by subjects otherwise believed "normal". This was not excluded by L. Rowell Hussmann (2007) "The impact of electronic media violence – Scientific theory and research" *J. of Adolescent Health*, vol. 41, pp. 6-13.

symphonies, rebellions, and true acts of courage. This is because we become “in love”, that is, we have almost become true human beings (about this important issue see mainly Section 11).

Middle-term solutions for ADOLESCENTS

- ◆ They maintain some degree of idealism and are open to social innovation.
- ◆ They are critical of adults and of the world they have been left with.
- ◆ They are aware of the need of a **community**, but they easily adopt **individualism and consumerism**.
- ◆ They are attracted by nonviolence.
- ◆ Results are promising with new couples.



Here we do not deal so much with this beautiful personal adventure, but with the parallel one that commits us as *members of a community*.⁶²

⁶² This is a politically important question. How can contemporary adolescents become members of a community if those who oppress us (a *very rich minority and the commercial-media complex*) have had the brilliant idea of taking away the fundamentals from under our feet (the places and institutions of human communities) to transform us into *simple individuals, greedy, ignorant, and therefore vulnerable*? An urgent project

In the Palaeolithic period of *Homo sapiens* (20-50.000 years ago) a girl became a woman around the age of 13-14 years and a boy became a man around the age of 15. Their nonviolent society ***was a community*** and adolescents gently grew up into *adults with empathy, solidarity and cooperation*. We already know from previous sections of this book that this is not romantic naïf thinking, but recent anthropological and neurobiological scientific discoveries.

During the “modern” (about last 5,000 years) post-agricultural violent societies (the “civilisations” of ancient Mesopotamia, Egypt, Europe, Asia and Central America) a slow process of prolonging the youth period of *H. sapiens* started. Biologists call it “neoteny”: very limited in Mammals like us, but substantial in other animals like Amphibians. Among the cultures of violent *Homo sapiens* this delay in maturation probably began quite recently. Now this phenomenon has led, in some cultures, to the figure of the “big baby”, who during and after the university continues to stay in the nest and open the mouth to be fed by the parents.

In the figure above we have presented a short list of characteristics of adolescents that partly facilitate their participation in our *nonviolent recovery* and in part make it more complicated, but they remain a social group potentially

related to recovering our humanity is **reconstructing local human communities**.

conducive to the project. Personally, I hope they will help us *to rebuild a community*, the first step to repair the damage done in the recent past, deliberately, by those who want us individualists, infantile and vulnerable to the consumerist propaganda.



It would also be very useful to introduce in Primary and High Schools appropriate (for a given age) courses of Civil Education and Political Education (but non-partisan), to *transform the purely critical tendency of adolescents, into an informed and constructive criticism* concerning the unappropriated world that we adults have prepared for them. After having apologized to them for the bad work done by their grandparents and parents, we must then defend them from both violence and cynicism, as a defensive mental approach against the corrupt and violent environment that is being offered to them.

After this honest premise, we (people flying high and knowing about human nature) can perhaps coordinate with the teenagers a plan to recover our nonviolent humanity. With adults it would be too difficult, as mentioned above.

10.6 Children (0-15 years) and long-term solutions

Too often we refer to "children" in general, and then formulate very specific considerations. However, growing human beings continuously change their potentials and needs, so when making proposals for the future it would be better *always to specify the age of children to which one refers*.

The final purpose of an educator of children between 5 and 15 years should be *to help them building up their citizenship*. A citizen needs *the following complex knowledge*: 1) knowing who we are, 2) how human beings should live together, 3) how societies and nature functions, 4) how to protect nature and human beings, 5) how to defend ourselves from the power systems, which **do not** intend serving the community, 6) how to defend ourself from violent people in a nonviolent way, 7) how to disobey constructively when necessary.

On the contrary, most educators tend *to describe to children of this age (5-15} how it works the society they are in and what they will have to do to fit into it without criticizing it*.

Question: is it better to form ignorant and obedient citizens or citizens who have knowledge and are capable of constructive criticism? The former ones are easy to control (*conservative people say*); the second type of citizens may be more difficult to control, but they offer hope for a better future society (*progressive people say*).

We urgently need less progress in technology and *more progress in human qualities.*

Long-term solutions for CHILDREN

- ◆ They are very malleable. If we give to them a nonviolent (HUMAN) environment, they will imitate it spontaneously.
- ◆ In such a case, **peace education is not necessary.**
- ◆ Let's provide them with "new parents", "new schools" and "new communities" and everything will be OK.



In the figure above we have listed the characteristics of children between 5 and 15 years.

To this group of people is worth dedicating our best efforts and most of our resources for changes, because they represent the

*possibility of obtaining **truly decisive effects** through long-term solutions. Although it will take at least two or three generations to complete an effective and lasting **recovery of our original nonviolent (human) nature.***

10.7 The practical complications of recovering nonviolence

Identifying teenagers and children as effective material for effective changes to recover our humanity was the **good news**. The **bad news** is that to be successful we must offer to them, from childhood to adolescence, very different social models from the current ones, and we will need above all "new parents" and "new schools". But we know how difficult it is to convince adults to change their ways and lifestyle. To this end it will be necessary to start working *with teenagers* (Section 10.5 above) *that will soon become the "new parents" and the "new educators" who will have the courage and the spirit of "conscientious objectors" to the current competitive & violent society.* This complex social revival by an important movement of social improvement will most likely succeed in a **small city** that embraces, in a democratic way, the project of becoming

nonviolent already described above (see Section 10.2). The **social advantages achieved by this city** will then be noticed and copied by other cities and the nonviolent change will spread in the territory, just as 5,000 years ago violent changes generated involuntarily after the invention of food production spread from three distant points of the Earth, as we have already discussed (see Section 3.3).

10.8 Progressive educational methods

To pursue nonviolent changes in society by working on children, we can start by considering the progressive educational methods already available. We should however consider that in most cases the aim of the proponents of these methods has been to facilitate the learning process of children, not so much to attempt an *anthropological change in the whole of society* as described above in our new social program. The details of these progressive pedagogical methods are available in online sources and in specialized literature. Here we limit ourselves to briefly mentioning what we consider the three most interesting ones.



The Montessori Method was conceived by Maria Montessori (1870-1952), an Italian medical doctor and pedagogue.

Montessori knew how to combine science with education and understood the ontogenetic potential of children, adopting *a method based on the child considered as a creative element*. Her method was more successful abroad (particularly in India and Holland) than in Italy because of its incompatibility with the fascist regime of the moment. Montessori wanted this text written on her grave still existing in Holland: "I beg the dear children, who can do everything, to join me in building peace among people and in the world." Toward the end of her life the specific problem of Peace became dominant in her work, but this of course has not been publicised by the mass media.

*The Reggio Emilia Approach* was conceived by Loris Malaguzzi (1920-1994), an Italian pedagogue and teacher. The city of Reggio Emilia is in the Italian region of Emilia-Romagna. This is not a pedagogical method as such, but rather *a gentle approach to the child*. General principles: cultural transversality, knowledge not divided in a sectarian way, precedence to the project (not to the programming) and precedence to the process (not to the final product).

*The ECEC (Early Childhood Education and Care) Program of Finland* was established in 2016, one year after the decision to make pre-school education compulsory by the Ministry of Education and Culture. This is a national curriculum applied differently from local pre-school care centres. Apparently, Finland is achieving an educational “miracle”: to get excellent results in tests on reading, mathematics, and science, even if elementary school starts at the age of seven. It seems that this result is due to this solid pre-school program (ECEC) supported financially by the State.



11 The miracle of the relationship of new-born babies with their mothers

11.1 Introduction

We have heard many times a mother saying about the problematic behaviour of her son (sorry for the specific generic male): *it was born like that; I cannot do anything about it*. This recent strong belief in *genetic determinism* often appears in popular explanations about social behaviour at any age.⁶³ This is

⁶³ Biological (or genetic) determinism is a (wrong) concept useful for governments, so they have an excuse not to put in place corrective measures (if violence is part of our genetic makeup), and useful for the public that, for the same reason,

particularly pathetic in 2023 since *now we know* that in our species children are born without the functional brain connections for social behaviour or social communication (see Section 7.5). They only have brain connections to interact with their mother: searching the nipple, milk sucking, recognition of **her** voice, recognition of **her** face and need for the protection of **her** body.

But when we say "we know that" to whom we refer in reality? A small minority of neurobiologists who are seriously interested in the neonatal development of the brain. **Not** neonatologist doctors, **not** pre-school paediatricians, **not** kindergarten educators and, above all, **not** the parents of new-borns know it.⁶⁴

does not need to engage in the type of active, innovative democracy suggested here (Section 10). *The essentially cultural source of our social behaviour* must therefore be kept a "secret" for citizens. The very popular, but erroneous, expression "it is in their DNA", while referring, instead, to somebody cultural traits, is therefore encouraged on all occasions by the power systems and the obedient mass media financed by them.

⁶⁴ **This is a true story.** In the year 2015 a neurobiologist colleague of mine proposed to the Private Moral Council that administered the Municipal Kindergarten of a small town in Lombardy (Italy) – whose names we leave untold – to establish in the upper floor of the building (almost totally unused) a "Centre for Early Infancy Studies" together with colleagues from the nearby University of Bergamo, experts in early childhood education. The aim was of *keeping teachers and parents (also from nearby localities) informed about important recent developments in science concerning the behaviour of children between 0 and 5 years of life*. It was a service offered by highly qualified scientists on purely voluntary terms. Result: the parish

But what information do we talk about? See this Section 11, below.

Definitive solution To love NEWBORNS from age 0 to 5

- ◆ These SMALL GENIUSES easily **acquire through imitation** erect posture, more than one language and manual skill.
- ◆ This because they are at the stage (critical period) **when they are establishing the very nervous connections for these human functions.**
- ◆ If we love them as advised by James W. Prescott, they also produce enough oxytocin to become empathic and nonviolent = **HUMAN.**



priest, who presided the Administrative Committee of the kindergarten, organized a meeting with only one item on the agenda: *my colleague and his **dangerous project***. The members of the Committee were informed of the suspected activities of the person in question and of his attempt to introduce "strange things" in the kindergarten. The project was rejected. In this way, necessary innovations for nonviolent changes can be blocked with shameless lies of a few dull bureaucrats who know how important it is to keep young children education as it is: an education that generates narrow-minded, obedient and violence citizen. ***For interested readers: keep this in mind.***

11.2 Social implications of Dr Prescott's work

Dr. James W. Prescott created and directed the "Developmental Behaviour Biology Program" at the US National Institute of Health and clarified with scientific evidence (hormone tests and behavioural data) the relationship between a strong sensory and emotional union between mother and new-born (particularly between 0 and 2 years) and *the development in the child of empathy to become a human being*. In fact, the newborn deprived of the necessary sensory input from the mother (physical contact, caresses, smiles, etc., also called sensory deprivation) does not produce the hormone oxytocin which allows him to develop empathy. Oxytocin (OXT) is a hormone produced by the brain (thalamus) and is the antagonist of acetylcholine, which is a mediator of aggression. Interestingly, women have on average 30% higher oxytocin levels than men. The relationship between oxytocin (especially in early childhood) and the development of a nonviolent brain has been well proved by the research work of Dr Prescott.

One of his citations summarizes everything: "The brain is highly immature at birth and is dependent upon sensory stimulation for normal growth, development, and function. *Sensory stimulation is like a nutrient: without it the brain does not develop or function normally*" (Wikiquotes: James W. Prescott).

Dr Prescott retired early and was saddened by the fact that his work (for example Prescott, 1971 and Prescott, 1996), as well as that of Dr David B. Chamberlain on childbirth modalities that do not create stress in the new-born child, are ignored by those who take care of children between 0 and 5 years, i.e. doctors, educators, and parents. On the other hand, paying attention to their work, solidly demonstrated by scientific results, *would involve a radical change in our lifestyle*, which is apparently very painful for adults who are absolutely convinced by the commercial-media system (financed by the power systems) of the "normality" of the treatment of new-borns by the current violent "civilizations".⁶⁵

James W. Prescott was born in 1940 and died in 2018. I am grateful for his research work that warned contemporary “civilised” mothers about the needs of children concerning an intimate relationship with mother in the first two years of life, something that women from so-called “savage” cultures normally practice without reading any medical journal. Some more enlighten scientists are now exploring the same problems

⁶⁵ In practice it is necessary to dedicate at least the first two or three years of life of the new-born while keeping it close to the mother's body, caressing it and talking to it gently. Breastfeeding should be for at least two years. This generates the production of oxytocin in the new-born, which allows it to become empathic towards other human beings. For this first step towards re-humanization, changes in employment contracts and industrial relations would be necessary.

with prudence to avoid criticisms, I guess, from their conservative supporting institutions. See, for example, James F. Leckman et al. (2014) "Pathways to Peace – The transformative power of children and families. The MIT Press, Cambridge (Massachusetts), particularly Chapter 7, pp 95-128.

Very important contribution Correct nurturing by women makes us human beings

For many years Dr James W. Prescott has suggested that babies should be breast fed for at least two years and need cuddling and stroking by mothers in the first years of their life, in order to produce oxytocin and so express normal empathy, solidarity and cooperation when adult. Importantly, this correct nurturing is culturally transmitted among contemporary nomadic hunter-gatherers, who are nonviolent, like Palaeolithic humans.



The nonviolent movement must therefore inform the public, always with solid scientific evidence, that a) the "civilisation" is not normal at all, b) that human nature is nonviolent, c) *that we invented violence "recently" (5,000 years ago), and that it was a purely cultural innovation.* Conclusion: **the current diffuse violent culture can be corrected to reacquire our normal**

humanity. This cultural endeavour must be carried out slowly with short-term (adults), middle-term (adolescents) and long-term (children) strategies. But the most important innovative (or, better, traditional) methods will be those applied with newborns from 0 to 2-3 years,⁶⁶ with the collaboration of clever young parents. ***In this important project women's cooperation will be fundamental.*** See also the concept of centrality of women in the human adventure (Giorgi, 2015a).

11.3 Important contribution of women to recover nonviolence

In the above Section 11.2, we have demonstrated the ability of women of making us human beings by a correct nurturing of new-born babies. Here we would like to suggest that if humanity will ever succeed in recovering our normal nonviolence, it will happen thanks to women.

Giorgi (2015a) began this book-chapter with this little-known information: "There is much evidence from several academic disciplines supporting the idea of a central position of women in the natural, cultural, and spiritual history of humanity. The aim of this paper is to briefly present such evidence, while outlining

⁶⁶ It is interesting to note that the mothers of contemporary nomadic hunter-gatherers (who are nonviolent) have always behaved with their babies just as Dr Prescott suggests, without reading any scientific paper.

the general time (Late Neolithic period) when *gender equality and female centrality was substituted in almost all cultures by several models of patriarchal regimes, **with striking negative consequences for humanity.***"

Later in his paper Giorgi summarised historical facts and made a prediction:

"The lack of awareness of the tragic consequences of the invention of food production, of the increase in size of human settlements and of the loss of the nonviolent central role of women in the human adventure co-exists with the lack of interest in small *contemporary nonviolent nomadic hunter-gatherer cultures* that continued to live in the 19-21th centuries (Fry et al. 2008). Women are now the main victims of the widespread culture of violence, while *they enjoyed centrality (that is, great respect, not power) when the normal social culture of H. sapiens was nonviolent*", which it means before agriculture. The restoration of nonviolent social systems in our current societies should be the main historical task of women, i.e. *those fortunate enough to gain the freedom to express their human potentialities.*

11.4 Early childhood: they are true geniuses

We all love small babies: we protect them, we keep them warm, we nourish them, but we do not always understand the human miracle that takes place in front of us.

About children from 0 to 5 years:

a) In the first year they recognize their mother and establish (or should establish) a very special bond with her that will make them human by generating empathy, as already discussed above.

Then they begin to recognize faces different from mother, to whom they smile if they have acquired empathy: father, brothers and sisters, grandparents and some relative.

b) Between the first and second year it happens (or rather it could happen) an extraordinary fact, but little considered by educators and parents: if gently immersed in water at the appropriate temperature, the babies swim (frog stile) on the water or under water, smiling and holding the breath naturally, without choking or drowning (Morgan, 2011).⁶⁷ *This is a true*

⁶⁷ Elaine Morgan has published several books supporting, among other things, a hypothesis regarding the instinct of babies to be at ease under water: it would be an ancestral memory when prehistoric people began (without completing it) a process of adaptation to life by the sea. Morgan, a scientific journalist, relied on observations published by scientists, but being a woman and a schoolteacher (not an academic), she has always been ignored or discredited by anthropologists. It is time to recognise her contribution (Morgan, 2011) and proceed into a more detailed scientific investigation about children's potentialities.

instinctive behaviour.⁶⁸ This experiment must be done under careful supervision and offering help when the baby needs to re-emerge. Once this *critical period* ⁶⁹ has passed, human beings are afraid of water and must struggle to *learn* ⁷⁰ to swim.

c) During the second half of the first year of life children begin to stutter sounds and pseudo words, often to attract attention.

Between 12 and 18 months they start to say simple sentences; some children only after two years and more. *They do not speak at all if they are not in contact with persons who speak*, as already discussed about wolf-children and neglected children. It is therefore not an instinct, and we must encourage them and guide them in their first attempts. In the first five years children can simultaneously and easily **acquire** a discrete use of one or two or three languages. Once this critical period has passed, young people will have to **learn** foreign languages with great efforts at school (too late).

⁶⁸ *Definition* – An instinct is a very specific behaviour that manifests itself spontaneously after birth without the need to be acquired by a visible social model or by any other early post-natal experience.

⁶⁹ *Definition* – A critical period in development is a well-defined period, in the embryo or in the new-born, within which a given inducing event must manifest itself in order to develop a corresponding structure or function or behaviour.

⁷⁰ *Definition* – Learning is the addition of a new knowledge in the brain (in the form of new nerve connections) after the definition of brain structures acquired in early childhood. This requires the use of the memory mechanisms represented by the hippocampus and the limbic system.

d) Squeezing something in the hand soon appears around 6-12 months of life and may have an instinctive component, but the opposition of the thumb and the more refined manual dexterity of fingers is acquired at a later age if the necessary opportunities and encouragement are offered.

e) At the end of the first year and during the second year of life children begin to develop extensor dorsal muscles and experiment to stand up. But they do it if they see other human beings stand up and if someone helps them and encourages them. Therefore, it is not an instinct, as already explained above in b) and c).

f) In the first five years children also acquire complex information about their physical environment, certain basic social relationships, who or what is friendly and useful, who or what is dangerous and should be avoided.

All the skills described in this list are complex and important. How do their little brains add (acquire) so many new features? They are small geniuses, if compared to the effort they will need later to learn something at school. *The explanation is precisely in the term "acquire", as different from "learn".*

As explained in its definition, *acquisition in early childhood takes place just as the brain is constructing the nerve connections related to the function in question.* These are those regions of the cerebral cortex called "associative", that is, those with which we think and decide; the others are the "primary" sensory and

motor regions with which we are simply aware of the sensory information received or of the related motor activity being performed. Therefore, at these early stages of life *we are not faced with learning, but with the real construction of our own infant brain*. Once the functional connections within the young brain are made, we continually change our brains *through specialized learning regions* (memory and modification of pre-existing connections), but this modification process is more complicated and lengthier than that used to manufacture functions in babies, the magic aspect of early childhood. That's why at the beginning of life we are geniuses; later, as we are aging, the brain begins to malfunction, something like in the musculoskeletal system.

If we understand this phenomenon of early childhood, we will stop saying "it's just a child; when he will go to school, he will learn things ". *No, we must be very careful while interacting with a child of 0-5 years*, because the school will come too late, and she/he will not be able to compensate the lack of very early and necessary contributions that allow us to become human beings.

11.5 The importance of non-verbal education

Cultural transmission from one generation to the next can take place in a non-verbal or a verbal (oral or written) mode. The first mode, consist of young children imitating adults who provide

social models, takes place at every age from about one year of age onwards. The second, made up of verbal instructions, tends to be left to educational institutions.

Children, especially in early childhood, are very good at understanding social relationships and even subliminal messages transmitted by post-natal social experiences, because they are building, right in the critical period of 0-5 years (Section 11.4), *the nerve connections between the associative regions of the brain* (Giorgi, 2008, Appendices, Brain development).

11.6 Methodology of social change and the political situation

We have already suggested that the details of the methodologies for carrying out a nonviolent change in our lifestyle depend very much on the cultural resources and the particular social and political conditions of a particular country or ethnic group/culture. But the general criteria remain *the education of children and adolescents*, with special attention to early childhood.

In the so-called free and democratic countries, even if these two characteristics may have defects of various degrees, it will be easier to reconstruct a human and nonviolent society. This will happen thanks to the possibility of easy communication.

However, it remains to be overcome the traditional resistance of

the conservative classes, which often benefit from financially lucrative forms of violence, such as corruption.

In countries with authoritarian governments, it will be more difficult to find a local consensus to carry out social promotion programs, but one could insist on the evident human damage caused by violence.

In countries with dictatorial governments, one can only hope that, before attempting any form of social promotion, it will be possible to obtain some form of democracy through nonviolent methods.

11.7 “Civilization and its discontents” by Sigmund Freud: a criticism

In 1930 Sigmund Freud published an interesting book entitled "Das Unbehagen in der Kultur" (soon translated into English with the title "Civilization and its discontents"), in which he posed a new and important question: *do human beings living in the civilized world really live as they would like to live?* It is not an idle or useless question. It is very important because it basically refers to human nature (he did not use this term, but he was obviously thinking about it). Since *his answer was no*, a distracted reader may think Freud was in accord with our

proposal of a nonviolent human nature (in the bio-**cultural** sense).

On the contrary, *Freud explained that his own negative answer was based on his belief in a violent human nature*. He briefly said: by instinct the "civilised" man would like to kill a person he meets on the street or rape an attractive woman, but he must hold back because civilised laws forbid him doing so and it would be punished very seriously.

According to Freud, *this unnatural state of affair* (differences between naturally violent instincts and the civilised social rules) would create a continuous stress on us that results in **an increasing social malaise and altered psychic states**: the "neuroses" (as Freud called them), then treated by psychologists and psychoanalysts. Several films with a dystopian theme have already given an idea of a future Earth left with a few persons furiously killing each other.

For this unsatisfactory situation Freud blamed religions with their moralistic instructions and communist philosophy with its idea that private property is the cause of violence (Freud, 1930). The reader will soon understand that now we have important modern information in Anthropology and Neuroscience (published well after the Second World War) that was not available at Freud's time. However, the way history is still taught at school (list of wars and kings at war, with no information about Palaeolithic people) and the *poor expectations for scientific*

knowledge at final exams of high school leave the public easily confused about brain, social behaviour, and *the phantomatic instincts of Freud*. In fact, Google's Wikipedia under the title of "Civilisation and its discontents" offers now in 2023 an enthusiastic presentation: "... the book is considered one of Freud's most important and widely read works, ...". Almost all references in this strange report are to Freud's publications, and none is critical.

This offer to the public by an information system such as Wikipedia that *is normally very careful with well documented information*, demonstrates how easy is to confuse a public that is increasingly becoming more ignorant and easily misled by excess of information, fake-news, and intentional partisan misinformation.

I have many friends and colleagues among psychologists, and I have myself been teaching Neurobiology to psychology students. Every time I have mentioned the book in question, I have had different evading comments: "It was badly translated", "He was old and ill", "Most of his ideas have been modified by his colleague and students", etc.

I respect Sigmund Freud for opening our mind to the existence of the unconscious, but his ideas about erotism and aggression were not supported by any scientific evidence or referred to the odd behaviour of *one of his clients*.

Scientific evidence available in 2023, as discussed here, is clearly in disagreement with “Civilisation and its discontent” of 1930. Freud used more than once expressions such as: “*Homo homini lupus*. Who, in the face of all his experience of life and history, will have the courage of disputing this assertion?” (for example, Freud, 1930, p. 69).

The proposal presented in this work is the opposite of that of Freud but, unlike his one,⁷¹ it is supported by seven scientific pieces of evidence from two different disciplines (see figure entitled “Evidence” in Section 8-1): *our human brain preserves Palaeolithic genetic predispositions for nonviolence, practiced for at least 100,000 years, but in the last 5,000 years people living in too large settlement and controlled by a minority of rich male individuals were forced to live in a society impregnated with violence (structural, direct, cultural and war). This unnatural state of affair indeed caused a growing social malaise*. This is the “malaise” correctly detected by Freud but explained by him **very wrongly**.

If a successful nonviolent movement (even in a single town) will lead to a happy, healthy, and rich population, the result will prove us right. Then nonviolence will gradually be adopted by

⁷¹ Almost all reference mentioned in his books by Sigmund Freud are citations from the Old Testament, from Ancient Greek mythology and from the behavior of **one** individual patient of his (correctly not named). This is a peculiar strategy for a person trained in medicine.

imitation by nearby settlements, just as it happened with the adoption of violence beginning 5-6,000 years ago, when a minority of male individual invented it.

The idea of a violent human nature does not have any scientific proof to support itself. Indeed, a proof of its improbability is in the study of US war veterans, especially those returned from the Vietnam war: instead of being happy, healthy, and psychologically balanced (if violence was a normal human instinct), they are depressed, depended on alcohol and often under psychiatric treatment.

11.8 A new approach to the promotion of nonviolence

Towards the end of 2023 I have taken the decision of stopping writing for colleges academics and **limiting my audience to that public kept purposely ignorant by the power systems** (see discussion from section 10.5 onward).

My first (and, so far, the only one) has been the paper published by Transcend Media Service, the blog established for many years by Johan Galtung and now continued with the collaboration of Antonio C.S. Rosa.

Below I have copied this paper as it appears on Transcend Media Service (16 Oct 2023).

The first page explains how I found the interesting theme of human nature well stated in the title of an article of the blog “The Conversation”, but subsequently badly ignored in the text. The reader will be interested by my making up for the ignored important topic beginning with Chapter 1 (The beginning of a new species).

The Traits That Make Us Human

ARTIFICIAL INTELLIGENCE-AI, 16 Oct 2023

Piero P. Giorgi, PhD - TRANSCEND
Media Service



Freepik

11 Oct 2023 – *The Conversation* has the following small subtitle: “Academic rigour, journalistic flair”. I follow it because of its academic rigour.

The Conversation article on Science and Technology of 28 Sep 2023 by Cameron Shackell attracted my interest with this complex title: ***Will AI kill our creativity? It could – if we don’t start to value and protect the traits that make us human.***

The article touched many aspects of the relationship between artificial intelligence and creativity (even trade unionism) except the important ones, those that characterise *Homo sapiens*, that is **“the traits that make us human”, so well stated in the title but so badly ignored in the text.**

Lack of academic rigour? Yes and no, because that reference to human nature was expanding the topic too much, but it was also very important. The trouble is that “recently” we seem to have decided to limit the knowledge of *Homo sapiens* only to its last 5,000 years (interestingly, **after** we invented violence), while our species appeared around 300,000 years ago. By doing so **we miss the best part of our achievements and our true nonviolent nature.**

Below I will try to explain *by whom and why this choice of a short-sighted historical awareness was made.*

In this contribution I will refer to well-known scientific data available in university textbooks for first-second years students of Anthropology and for university students of Neurobiology. On the other hand, the same scientific knowledge **is kept accurately hidden from the public,**

who otherwise could ask embarrassing questions about the well-known nonviolent characteristics of “recent” Palaeolithic *Homo sapiens*, for example.

Enjoy this new world that will be briefly unveiled to you.

1) The beginning of a new species

First mistake to be corrected: *we did not descend from monkeys*, as many popular sketches of human evolution often represent. We descend from Hominins such as *Australopithecus afarensis* living in Tanzania about 4,000,000 of years ago (Stringer and Andrews, 2011, p. 118). They could walk on two legs as well as climbing trees to collect fruits, but they had a small brain.

The subsequent evolutionary improvement concerned the increase of the brain, as in *Homo erectus*, who soon left Africa to reach Asia.

In a relative short time, many new species of *Homo* appeared in several places of Europe and Asia, until ***Homo sapiens*** first appeared in East Africa about 300,000 years ago and rapidly moved out to explore all continents (Stringer and Andrews, 2011, from p. 166).

2) The important discovery of human nonviolence

The first *Homo sapiens* have been *nomadic hunter-gatherers* for 200.000 years. Strangely, paleoanthropologists have demonstrated *little interest in that stage of our life*.

Fortunately, something interesting evolved in the human brain around 50,000 years ago: **artistic skill** emerged and *Homo sapiens* started painting the walls of caves, carving images on pieces of wood, on flat stones and building small solid images mostly of female human beings. These images, sometime of exceptional artistic quality, attracted much interest among anthropologists with two subsequent aims: first simply *describing those images* and subsequently *interpreting the aim of the artist*. These **descriptive images** practically extended of 40,000 years the history of human beings (Anati, 2008), as earlier historians had previously limited themselves to the availability of written documents, that means only 5.000 years of history.

Interestingly, rock art essentially described scenes of hunting animals, fishing, collecting fruit and vegetables and sometime love making, no scene of violence (human against human), while written documents used by historians until 2008 were simply confirming the existence of violence, war, and social injustice in the last 5,000 years.

The sterile debate about the nonviolent interpretation of rock art ("perhaps social violence could have existed without being immediately translated into art") terminated when Bonta (1993) first reported about the surprising existence of about 20-25 *small nomadic, hunter-gathering, and nonviolent cultures* who, therefore, were paleolithic people survived from the attacks of violent cultures by hiding in remote places of the

earth. To obtain more information **about this important topic** see also Bonta (1996), Giorgi (2008), Fry and Souillac (2017), Fry (2018), Giorgi (2020), Sponsel (2021), and Bonta (2023).

3) The invention of violence

I find it extraordinary that practically nobody in 2023 is aware of the very special historical trends human beings are experiencing since the **invention of food production** (independently in three places of the world: 10,000 years ago in the Middle East, 7,000 years ago in Southern China and 5,000 years ago in Central America).

This clever innovation was followed almost everywhere by several obvious and “innocent” consequences: loss of nomadism, establishment of small cities, rapid increase in size of cities and *rapid stratification of societies* due to the new diversification of individual roles in the production of services (professions). In fact, some professions were more advantageous in bartering. *At this point subsequent changes in society following food production lost their “innocence”.*

A **very rich minority of people** *deliberately placed themselves at the top of society*, organised and subsidised a police service that imposed rules and regulations to the subjected population and gave to themselves obvious **titles of power**, such as King, Minister, Judge, General, etc.

One very important characteristic of these new self-promoted people needs to be stressed: they were all belonging to the **male gender of our species**. I will not develop this

topic in this short presentation, as I have already done it in a book chapter intitled “The centrality of women in the human adventure” (Giorgi, 2015).

It became soon obvious that it was convenient for Kings in power to challenge nearby cities with the purpose of enlarging their own area of control and their own wealth. The new terrible type of human violence called **war** was invented.

4) The weak democracy of “modern” States

War is simply the extension of **structural violence**, the system thru which **little known power systems** control the population even of modern democratic countries, those who have Parliaments and elected Governments. **Power systems** maintain such officially unknown power by **investing much money in local mass media**, a very effective way of controlling public opinions.

In 2023 we are still at this patriarchal and violent stage (therefore *not human*), but nobody knows it, except a few anthropologists and one neurobiologist, as already listed above (end of chapter 2).

Historians have naively contributed to such a **dangerous situation of public ignorance**: when they became aware of what happened (violence and war) since the appearance of the first large cities surrounded by defensive walls, historians decided to describe them with the positive term of **Civilisation** to hide what really happened: they stressed the rapidly increase in technological knowledge, while hiding the parallel rapid loss of human characteristics (mostly loss of

nonviolence and solidarity, very present before Food Production). To be more realistic and honest, in our publications we prefer to describe the same phenomenon as **the Human Tragedy**, rather than Civilisation.

5) Modern developments of “Civilisation”

To complete the understanding of such a failure in scientific knowledge about the invention of violence (chapters 3 and 4) *deliberately caused by power systems* to maintain their influence on so-called free people (beginning of chapter 4), one should consider an interesting phenomenon: the important role of Sigmund Freud in the study of the **unconscious** (a great discovery) and the creation of **Psychology** (as alternative to Neurobiology) and **Psychoanalysis** (later modified by his numerous followers).

At the University of Queensland, I have taught for several years neurobiology for psychology students (“Functional Neuroanatomy”) and I have had friendly collaborations with my psychologist colleagues. However, *I noticed how they were avoiding talking about Freud’s 1929-30 book “Das Unbehagen in der Kultur”* (English literal translation: the uneasiness in civilisation). My page references are from the good 2004 edition by Penguin Books “Civilization and its discontents”.

With this work Freud has clearly declared his believe in the violent nature of *Homo sapiens*, but he has done so with his usual lack of proper academic references. For sake of brevity, I

simply indicate some page numbers where the reader will find obvious statements: pp. 61, 64, 101, 106.

I was therefore surprised to find a recent entry about “Civilisation and its discontents” by **Wikipedia** that defines it “... one of Freud most important and widely red work ...” (sic). The author uses practically only references to Freud himself and lacks one of the usual warnings of Wikipedia “This works lacks references to existing alternative opinions”.

I will provide a criticism and I hope others will also contribute with *modern scientific ideas about human nature*.

6) Violence also against nature

Three years ago, I was imagining a possible extinction of our species caused by a Third World War carried out by nuclear weapons (Giorgi, 2020).

Now I realise that a different scenario has become more likely: our weak democracies are more interested in local political power than in *the courageous and innovative world projects* that could **save humanity from the disastrous climate changes** that are killing more people than the many small wars also appearing everywhere on the Earth.

We must first become aware of the Human Tragedy we have created (end chapter 4) and, if we really love our grandchildren and want to spare them the beginning of human extinction, we must do what suggested below (chapter 7).

But the preliminary “simple” steps to initiate all these innovations are:

- to become aware of the existence of **hiding power systems** (beginning chapter 4),
- stop our current **unaware obedience** to them through the “socials”,
- reconstruct the **human communities** (places and practices) rapidly removed soon after WW2 as the first step taken by the **initial power systems**.

7) The possibility of avoiding a total extinction of our species

The total or partial extinction of *Homo sapiens* must not be accepted as unavoidable. After the considerations presented above (chapter 6), the relative optimism of the present author is based on the following two additional possibilities:

It is possible that, after many more disastrous damages caused by climate changes, a substantial number of thinking people in the world (especially those living in developed countries) *decide to change rapidly and radically enough their lifestyle to reduce and then stop their unreasonable discharge of CO₂ in the atmosphere*. The world will have to undergo a long process of reparation, but humanity will somehow survive.

It is possible that the population living in very large and densely populated cities will not survive the effect of disastrous climate changes (and of new viruses), *while human*

beings living in the small towns or villages of very sparsely populated areas of the world could have a better chance to survive.

Our planet started to be populated by a relatively small number of *Homo sapiens*. With the memory of the stupid errors made by their recent ancestor, the surviving humans may form again *small communities characterised by empathy, solidarity, cooperation, and nonviolence*, as humans had before the production of food and the invention of violence by males (see chapter 3).

8) Conclusion

Good luck to everybody.

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Tags: [Artificial Intelligence AI](#), [Creativity](#), [Homo sapiens](#), [Humanity](#)

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12. Could *Homo sapiens* become soon extinguished?

In the previous edition of this book published in Italian (Giorgi 2020) at this point the reader finds a Section entitled “Six possible causes of our extinction” with a few pages discussing the different ways we could become extinct in a few generations.

However, I have been advised by several colleagues to remove that Section from the English version for several socio-political reasons.

I am a scientist, not a politician, and I never present a hypothesis if not supported by reasonable evidence. However, I will respect the opinion of my colleagues and their suggestions. If anything, also to be coherent with the different title of this book “Good news for a nonviolent future”.

However, readers who may be interested in the topic of the hypothetical extinction of human beings can let me know with an email message (pieropgiorgi@gmail.com) and I will provide the text in English of the Section eliminated from this edition.

13. A short departure from science about spirituality and religion

This work was written for **a non-religious audience** interested in social progress. In Europe only about 10% of the population regularly attend a place of worship or declare themselves "believer" and practice a religion.⁷² Since this writer belongs to

⁷² Data from the Pew Research Center (2018), show variability between countries and age groups. Concerning attendance to church: for example, Italy 25% (ISTAT 2016), Sweden 6%, Norway 7%, UK 8%, Germany 10%, France 12%, Spain 15%,

the latter category, *although with his own personal convictions*, it is good to clarify some aspects concerning religion. If the reader is not interested in religion, he/she can ignore this very short chapter (825 word).

Following the explicit request of the editorial director, in Giorgi (2008) I added a discussion on religion (chapter 5) in a book on the origin of violence, because these two topics have interesting relationships as it will be briefly explained in this short section.

First, it is necessary, as usual, to clarify the terminology.

*Spirituality*⁷³ and *religion*,⁷⁴ as defined in the notes, are two

Greece 13%. While in North America: Canada 20% and USA 36%. This last value is interesting (see also Giorgi, 2015b).

⁷³ *Definition* – Spirituality is represented by the ability to pose metaphysical questions and the need to give them an answer. For example, when a person asks what relationship there is between himself and the tree in front of him, or how he should behave in relation to another person unknown to him or what he will become after his own bodily death, well *this person is expressing his/her own spirituality*. Palaeolithic human beings have demonstrated this with rock art and the symbolic graphic representations present in it. The cultures of contemporary (and nonviolent) nomadic hunter-gatherers are rich in spiritual manifestations. In a word, *spirituality is the opposite of materialism* (see also Giorgi, 2015b).

⁷⁴ *Definition* – Religion has been built around the pre-existing human spirituality with the addition of the following new concepts: the concept of divinity, the concept of the priest who mediates between deities and human beings, the concept of necessary rituals, and the concept of moral rules as a compulsory behaviour to be followed by human beings. It should

different concepts, even though they are often used as synonyms in the religious literature. It is also important that *they have emerged at different times of human evolution*. This is indeed the sequence of events:

- a) *Spirituality is part of the characteristics of human nature*, it was present at the time of the emergence of our species, probably 200,000 years ago. The neurobiological evidence is the presence in the human brain of a specific region of the frontal lobe that is activated (under functional magnetic resonance) when metaphysical or religious questions are asked to the subject (Giorgi, 2015b).
- b) After the invention of food production violence appeared (Late Neolithic), as already discussed (Section 3.3).
- c) **Only after** the various forms of violence and war emerged in the Bronze Age, *prophets appeared*, **not before**: an observation that I never found in history works. These people, with a high spiritual level and inspired by forces mysterious to us, have all taught with clarity *a very important concept: it is not so (with*

be noted that the nonviolent ethnic groups of contemporary nomadic hunter-gatherers have no moral rules imposed by a creed (Bonta, 1993). This is because natural selection, that has defined their bio-**cultural** evolution, had already selected social behaviours compatible with *human existence*. In fact, they avoided violent confrontations or wars for 190,000 years, until our invention of violence associated with the so-called “civilisation” (called “human tragedy” by us) as already discussed in this book.

violence) that people should live. They did so in different times, in different places and with different languages. Let us see a few examples. The oldest in North India (Krishna) and in Persia (Zarathustra or Zoroaster); around 1,200 BC in Mesopotamia (Abraham, the prophet accepted by three main religions); around 600 years BC in various places in Asia (Buddha and others); in Galilee (Joshua ben Joseph, called the Messiah or the Son of God); about 600 years AD in Arabia (Muhammad); in the 19th century AD in various parts of the world (modern prophets). The messages of social ethics of the prophets were very different, but the basic teaching was the same (*eliminate violence*), as indicated above.

d) After the death of the prophets, the disciples organized themselves in a way like the systems of civil power that already existed and ***established new power systems called "religions"***. Each new religion immediately generated internal divisions caused by different views about who was to be the "head" of that religion. The prophets must have turned in their graves because of the disappointing spiritual weakness shown by their disciples, that is, the use of power to continue the teaching of their own prophet in different subdivisions of each religion violently opposing each other.

With religions we are still at this point, even if *some are closer than others to the nonviolent ideals originally proposed by their own prophets.*

14. Conclusion

With this work we asked a lot to our readers: to leave the world of every day, to consider it alien, to fly high in time and in space, to understand who human beings are (not ourselves in particular), to embrace them all as travelling companions, to become conscious of the "great human tragedy" of the Late Neolithic and of the many forms of violence that make us accept as normal "life how is now".

But we have also opened a window, or rather a new universe of hope: the confidence of *a nonviolent human nature*. Then we reduced the window by suggesting *that this great project of recovering normal human characteristics* can, indeed, be achieved only in a small city with a *robust movement of active citizenship* aimed at innovation: a nonviolent community that slowly grows in ethical stature around their children and adolescents, to whom we adults first apologize for having initially accepted the current violent society.

But why breaking your head with difficult concepts such as human nature? *Because it's important to know who we are*. Imagine waiting for guests at home; you need to know something about their tastes, their needs, and their lifestyle to make the stay pleasant for both parties. So, if we have *the*

ambition of establishing again and improving the human community, we must know what has allowed us to survive about 2-300.000 years without becoming extinct, as did many other species of Hominins or archaic forms of the genus *Homo* that are no longer with us. *Now we know what has allowed it: nonviolence.* But is it a unique characteristic of human beings? No, because all the other living species, at least the higher forms of them (Birds and Mammals), are careful not to use violence (as defined here) among themselves and against their own environment, as we have done (by mistake) in last 5,000 years. This is how the purpose of our work becomes even more universal: regain our humanity, but also *unity with other living forms (plants and animals) and the environment in which we live.*

Possible practical solutions are important. In this work we have not entered many details about the methodologies of social transformation, except for the attention to be given to children and adolescents and the importance of both verbal and non-verbal education. In fact, since we have more than 6,000 cultures in the world, *each of them will have to use their local resources, both environmental and cultural, and adapt their community traditions to new ideas.* And so, it will be for the different regions and the different provinces and the different cities.⁷⁵

⁷⁵ In fact, the geographical boundaries that define the about 200 different countries of the world have almost always been traced with a pencil on the map by generals who won a war, not freely chosen by their inhabitants. Therefore, **cultural variability**

At the end, **we thank the readers for their interest and patience.**

If you have comments and criticisms, please send them to this email address: pieropgiorgi@gmail.com. They will be acknowledged in later editions of this book.

(useful to humanity) is much richer (about 6.000 cultures) than **national “diversity”**, which is only an impediment to peace.

From Piero

Long life to Nonviolence and Peace!

The dove in the picture below says: “With peace one always wins”.



Important postscript

The Association for Nonviolence and Active Citizenship

In Australia this author is organising conferences and discussions with the hope of passing the baton to younger hands and establishing several local offices of the *Association for Nonviolence and Active Citizenship (ANAC)*.

All friends of peace and nonviolence are welcome. As mentioned above, the *local character of nonviolent social changes* is necessary because of the diversity of human cultures and of local resources. Local ANAC offices can be established in any parts of Australia by following the government regulations for not-for-profit organisations. If interested just write to pieropgiorgi@gmail.com and I will be in touch with you.

DICTIONARY OF DEFINITIONS

already offered in end-of-page notes,
here presented in alphabetical order
for an easier consultation

Aggressiveness - Behavioural attitude of all animals, which, unlike plants, must kill (other animals or plants) to survive (food aggression) or compete between males (sexual selection).

Bio-cultural evolution - It refers to the evolutionary mechanisms of certain social species of Carnivores and Primates. These are species whose newborns are born with incomplete brain nerve connections. In Carnivores, those that will mediate hunting techniques are formed much later by the little ones as they acquire them by hunting with their mother. In Primates, especially in *Homo sapiens*, new-borns acquire complex traits of social behaviour in early childhood while interacting with the mother (about 0-5 years) or observing specific social patterns during youth. The complex social behaviour of human beings is evidenced by the prominent frontal lobe and the complex bio-**cultural** mechanism: some members of the band invent new behaviours; if these are adaptive, women will preferentially select these men for mating, while the genetic information of the

related genetics predispositions will change slowly to facilitate (**not define**) the new behaviour. As far as I know, Lopreato (1987) was the first to discuss it.

Conflict of interest - Represents a social situation in which two people or groups of people have opposing interests regarding possible developments in a given situation. It is not yet a conflict, but if the different interests are not resolved in a nonviolent way it can lead to violence. *Therefore, a conflict of interest is not a conflict.* This is important for the prevention of conflicts.

Critical period in development - It is a well-defined duration of time, in the embryo or in the new-born, within which a given inducing event must manifest itself to develop a corresponding structure or function or behaviour.

Culture (within anthropology) - It is the set of social behaviours, language, arts, and traditions that characterize an ethnic group and is transmitted from one generation to another after birth through social models to be imitated.

Power systems - The term "power systems" is used quite rarely in the academic world. The present author does **not** identify them with our official governments, but *in a small number of very rich individuals who try very hard to remain unknown.* But they can be identified by the fact that they invest only in the most

profitable business areas and, characteristically, they also invest in most popular publishing enterprise involved in the mass media and passive TV entertainment, particularly film with violence and sex. This allow them to manipulate, as hidden puppeteers, a given society in order to promote and maintain the following long list of modern impediments to nonviolence: individuality, ignorance about human beings, competitiveness, violence, military solutions, consumption, stupid and noisy entertainment, corruption, use of drugs, passive entertainment, love of city life, political and ethnic hostility, eating too much, use of meat, ignorance about the environment, ignorance about nuclear weapons, fear about supposed enemies, ignorance about life in nature (not holidays). A long list of negative human features that translate into advantages for the few at the top and disadvantages for an increasing struggling majority. Conclusion: *resuming normal human nonviolence is becoming very urgent.*

Empathy - Represents a spontaneous attitude of sympathy of a child or an adult toward another human being, but *only if during the critical period of early childhood (about the first two years) this person has had normal relationships with her/his mother.* These relationships must include being held against the mother's body, being caressed and receiving smiles and sweet words, as well as being breastfed for at least two years. This treatment causes the baby's brain to produce the hormone oxytocin, a

necessary condition to induce the formation of nerve connections related to empathy behaviour. These early physiological relationships were discovered and explained by Dr. Joseph W. Prescott in the seventies and eighties, but those involved in early childhood have so far ignored them. See Section 10.7.2.

Instinct - It is a very specific behaviour that manifests itself spontaneously after birth without the need to be acquired by a visible post-natal social model. Human beings have only the instincts of finding the mother's breast, suckling milk, recognise her face, maintaining a physical contact with her, and swimming around one year of age.

Learning - It is the addition of new knowledge in the brain (in the form of new nerve connections) after the definition of brain structures acquired in early childhood. This requires the use of the memory mechanism represented by the hippocampus and the limbic system.

Negative peace - A negative peace program deals with interrupting or punishing all forms of violence (a necessary but insufficient intervention in the short term).

Nomadic hunter-gatherers - They are small populations of human beings who have lived all over the Earth in the past or are living now in isolated regions of the Earth, hunting animals or fishing and collecting fruits and vegetables or other natural products present in their environment. Important features are that they do not produce food, are nomads, avoid violence and do not practice war. They represent true human beings.

Nonviolence - Nonviolence is a philosophy of life and a "new" social behaviour if compared to that for which most human beings are educated at present (individualism, competitiveness, aggressiveness, greed for money, war, etc.). It is not a new behaviour, because until recently (about 6,000 years ago) we have been nonviolent. Nonviolence is *an active social solution that involves empathy towards other human beings, other living beings and the environment*. This is why we are proposing a true "revolution", which is a major restoration, not a small modification.

Positive peace - A program of positive peace deals with the prevention of all forms of violence and war (an effective intervention over long periods).

Prophets - They were highly spiritual people (or, for believers, men inspired by God) who put human beings on guard against

violence of all kinds. They did it in different languages and different times, but the message was, fundamentally: "This is not how we should live".

Religion - It was built around the pre-existing spirituality with the addition of the following new concepts: the concept of divinity, the concept of the priest who mediates between deities and human beings, the concept of ritual, the concept of moral rules to be followed by the human beings. Unfortunately, religions became power systems and created internal and external violent conflicts.

Solidarity - It is a complex social behaviour that is acquired since childhood if you live in a nonviolent culture (social model) and regards the spontaneous tendency to help those in difficulty, without hoping to obtain particular advantages (gratuity).

Spirituality - It is represented by the ability to pose metaphysical questions and the need to give them an answer. For example, when a person asks what relationship there is between himself and the tree in front of him/her , or how he/she should behave in relation to another person unknown to him/her or what will become of him after his/her own bodily death, well this person is expressing his/her own spirituality. Palaeolithic human beings have demonstrated spirituality with rock art and the symbolic graphic representations in it. The

cultures of contemporary (and nonviolent) nomadic hunter-gatherers are rich in spiritual manifestations.

Structural violence - All the ideas and institutions that prevent children and adolescents to express their human potentialities (i.e. to express nonviolent social behaviour).

Utopia - It means (from the Greek) "place that does not exist", as used by Thomas More in his homonymous novel of 1516 which describes an imaginary ideal State. Unfortunately, the adjective "utopian" is currently used to stigmatize naive and unworkable political ideas, while idealism is actively discouraged among young people by politicians increasingly cynical and authoritarian. Years ago, this author has coined the term "neotopia" to indicate a new social project, which is achievable without violence in a free and democratic regime (Giorgi, 2001).

Violence - Complex social behaviour designed to oppress, or injure, or kill large numbers of members of one's own species. It should be noted that, based on this definition, we are the only violent species on Earth. To clarify, see definition of *aggression* - Behavioural attitude of all animals, which, unlike plants, must kill (other animals or plants) to survive (alimentary aggression) or compete among males for sexual selection.

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