

Holy Spirit

Reflections on the evolution of human nature

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Summary

Using insights from different disciplines this essay reflects on human nature and the way it evolved the past two million years. This evolution will be understood as a process of sedimentation, implying that changes from our past are still working today. Consequently our reflection has to start with the most basic layer of human nature: the dynamics related to our life as group animals and the way the earliest humans have lived. Subsequently we discuss the phase of nomadic hunters and gatherers, a way of life which covered the largest part of our history and which both spiritually and temporally shows its own characteristics. Then comes the phase in which agriculture was all-important and finally the most recent phase which is dominated by various civilizations. We explore the idea that these histories still motivate us today, mainly by means of ‘eternal’ values we support. So what DNA does for our natural evolution, may be done by normative principles for cultural evolution. It does not mean that this heritage is recognized by everyone. On the contrary: there are many tensions even within one community, and especially in a world where different cultural traditions are defying one another. This essay will be concluded by a brief reflection on possible meaning of the Holy Spirit.

Keywords

Human nature, evolution, values, primates, human relations, hunters, ritual, religion, imagination, animism, civilization, rhetoric, holy spirit, philosophy.

Foreword

We cannot live without a view on the whole. Nowadays however, we are overwhelmed by an endless stream of loose facts, thoughts, events and opinions. This has an effect which is both confusing and paralyzing. Consequently, many people continue to wrestle with questions like these: How should we see the connection of things? What is the main line of the story? Who can still make a distinction between main and side issues? And why the unrest we all feel today?

This essay is an attempt to answer these kinds of questions. I deal with the history of our present existence in order to understand the nature and genesis of human life, the values that inspire us and the attitude we adopt in modern life. Such an project borders of course on intellectual hubris, especially if the text should not exceed 100 pages. I would therefore like to apologize in advance for all the omissions and inaccuracies which cling to this essay. But anyone who does not dare to imagine the whole will never be able to do so.

Moreover, there are good reasons to write an essay like this right now. Over the past decades science has brought to light many new insights that can be combined into a broad story about human history. I am thinking of works by ethologists such as Frans de Waal, religious scientists such as Robert Bellah, cultural historians such as Shmuel Eisenstadt, anthropologists such as Joseph Henrich, sociologists such as Shalom Schwartz and many others. All of them cut well-formed building blocks with which we can build a more comprehensive image of mankind. The latter is the task I set myself in this study.

One more word about the title of this essay. Although the true meaning of holy spirit only becomes clear at the end of my argument, I would like to point out the paradox we are facing. On the one hand our mind is the fragile outcome of an evolution that has lasted millions of years. On the other hand, that same spirit reveals our responsibility for life here on earth. Now that humanity is about to hand over important decisions to machines which are supposedly more intelligent than ourselves, it is time to reflect on this paradox.

But first the story about the evolution of human nature has to be told.

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Part 1: Human live

To think about human nature is almost an impossible task. It is a subject that philosophers have been working on for three millennia without having reached the beginning of unanimity. Also the scientific research of the past centuries does not offer a definite answer. Psychologists, economists, biologists, physicists, historians and sociologists see mankind from their own perspective and each time apply different accents. What also does not help is that we are dealing with widely divergent religious and philosophical traditions. Christians, Muslims, Buddhists, Hindus, socialists, humanists and non-believers look at human existence very differently and disagree for the time being. So which fool believes that talking about 'human nature' is a relevant project?

a. Nature as sedimentation

Maybe I should start on the other side and make clear what I do *not* believe. I am referring to the concept of the *homo economicus*, an idea that has not been around very long but has become quite dominant in today's society. We find it in the most diverse areas. In science at first it was mainly economists who embraced this idea, but since a few decades we find it in other disciplines as well. For many researchers, man is looking after his own interests in a more or less rational way. Outside science, this idea is just as popular, although it is often given a more political meaning. Emerging from the 1960s and 1970s in the last century, the pursuit of individual autonomy and self-development in the 1980s and 1990s was explained more and more in neoliberal terms. As a result, public debates are dominated by self-reliance. Many politicians, administrators and policymakers like to focus on autonomous and active citizens who pursue their own interests in a rational manner. In doing so, they testify to their belief in the *homo economicus*, which fits in surprisingly well with the intention to cut back on the welfare state. Finally, there are many citizens who, often highly educated and working as modern professionals, assume that man is indeed an egocentric being. They regard social or moral principles as an illusion and try to be realistic. By now, many Dutch people are so used to this kind of thinking that they find the idea of the *homo economicus* completely normal or self-evident.

My essay wants to question this body of thought. Incidentally, I do so not so much because I have personal, ethical or political objections to this view, but because the idea of the *homo economicus*

reduces the richness of human life in an unprecedented way. It is based on a number of assumptions which are completely at odds with important scientific insights and which, moreover, are diametrically opposed to everything a person with some experience of life knows. In short, these assumptions boil down to the following: 1) people in the first place want to be independent; 2) as such they mainly pursue their personal interests; 3) they proceed in a rational or efficient manner; 4) by doing so they distinguish themselves from the animal that is subject to instincts. The rest of this essay will show that each of these axioms is built on quicksand. For this moment I will confine myself to the observation that contemporary ethologists are doing away with the idea that there is a fundamental gulf between man and animal. Furthermore, contemporary psychologists recognize that rationality plays only a modest role in life, while brain scientists know that we humans are constantly involved with others. A few years ago, we could establish that most Dutch people do not put their own interests first, but moral values.¹ So the idea of the *homo economicus* is not so self-evident. The fact that many people take it for granted is mainly because it does exactly what prevailing ideas always do, namely deny, suppress and dismiss other ideas as being ‘unreal’.

What can we do about it? The most challenging thing is to develop a different concept of human nature doing justice to the richness of our lives. Such an attempt presupposes that people from different cultures and different eras have something in common. There must be such a thing as *common ground*. In my opinion it does indeed exist, although I admit that a certain distance is needed to see it. Choosing the right distance is not always easy in modern life. Today we are so much engaged in recognizing diversity that we no longer realize how much we have in common. For example, it is obvious that the world has great differences in the culinary field. In one country people often eat rice, in another wheat and in yet another country potatoes. Social and cultural traditions as well as ecological differences play a role in this. But it does not prevent people from having to consume a certain amount of carbohydrates everywhere. Another example concerns reproduction. In some societies, having children is a matter for the whole family, in others it happens in a nuclear family and in yet others it is something decided by the woman as an individual. Still, having children and bringing them up in all these societies brings with it similar tasks and concerns. So thinking about our existence, we can always follow two lines: is our attention mainly focused on differences or on what people have in common? Choosing emphatically for the second line, I would like to propose the following definition of human nature:

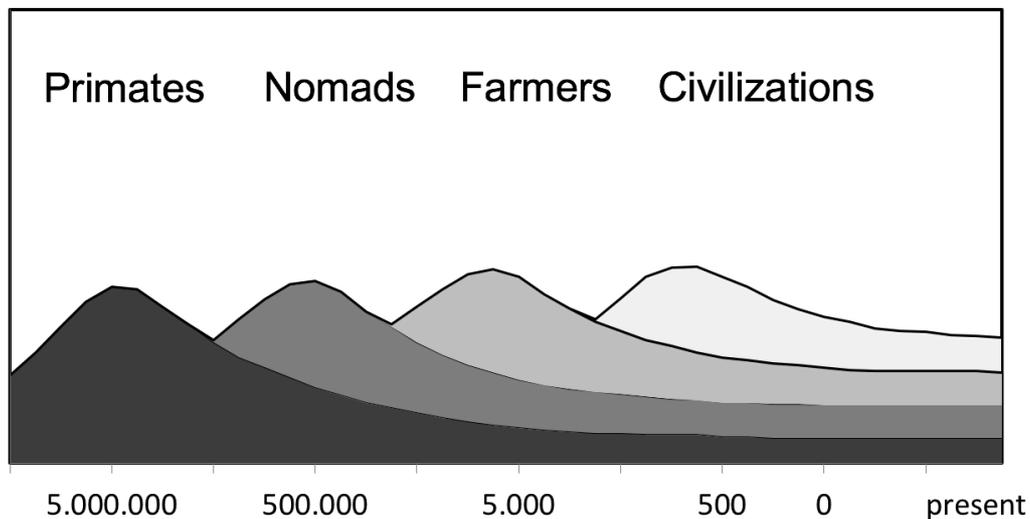
Human nature refers to the set of skills and preferences that come from our past, that continue to work to this day, and that occur in the vast majority of people on earth.

Let me provide a concise explanation of the main elements of this definition, even if it remains true that at the end of my speech the reader will have to determine for himself whether this view is sufficiently convincing. In any case, the following elements are at stake.

To begin with, human nature includes a number of *skills and preferences*. These are not only actions related to physical functions such as running, looking, breathing, eating, speaking, listening, fighting and the like, but also less visible skills such as remembering, imagining, thinking, comparing, organizing, etcetera. In addition, they involve certain tendencies, preferences or aspirations that we naturally carry with us. As living beings, we are all focused on sufficient food, safety and sex, even though the exact interpretation of these goals varies enormously. A second assumption is that this set of skills and preferences stems from a long *history*. They are the result of an evolutionary process which started hundreds of millions of years ago. We are therefore dealing with a certain heritage which has been stored in our DNA. The question, however, is whether the impact of the past is limited to that. The past could also work through the structure of our bodies, the functioning of our brains and certain cultural patterns. In fact I consider human evolution as a process of sedimentation, which means that older phases are not really lost and that the skills or preferences developed in the past still play a role. Finally I suppose that this heritage is shared by the *vast majority* of present mankind. I immediately acknowledge that each culture places different accents in the sense that it will emphasize certain elements of this heritage while masking or even counteracting others, but the stock of skills and preferences from which it draws is virtually the same. It means that cultures are not separated from each other as closed units. No matter how great the social, normative, linguistic or religious differences between people are, it is always possible to share certain things with each other and to understand what moves them. Attention to human diversity is OK, but it should not be absolute.

Let me explain why the idea of sedimentation is so important. After all, it is the cornerstone of my argument. The idea is that our history has known a number of phases of which the effects are still working today. Each phase forms its own layer so that at the end of the development several layers lie over each other. Normally the oldest layer is at the bottom and the more recent layers are on top. Looking at this sediment from above, only the youngest layer is visible while the

Figure 1.
Schematic representation of human evolution as sedimentation.



older deposits remain hidden. The latter only come to light when those more recent layers are eroded or broken. To get a complete overview we would have to excavate everything or drill a hole until the bottom is reached. From the remains we can deduce which layers were created in the past and in what order. That is the method we will follow in this essay. It goes without saying that we will have to limit ourselves to a few main issues and that is why the following stages will be discussed: 1) a period in which the human species was only one of the primates; 2) a period that began about two million years ago in which human nomads were active as hunters and gatherers; 3) the time that began about ten thousand years ago, during which people concentrated mainly on agriculture; 4) the era that began about a thousand years before present, marking the start of several great civilizations. As said before I assume that each phase has left certain traces in human nature and that they continue to have an effect up to the present day.² It does not mean that the whole of history is visible immediately. On the contrary: because our attention easily turns to skills and preferences from the most recent era, we are prone to forget that those older phases are still present in ourselves and not to understand how they interact with each other. This asks for a kind of archaeology, trying to determine as accurately as possible which reflexes in human nature originate from which stage.

This approach fits the evolutionist perspective of this essay. After all, hereditary material from the life forms preceding us is part of the human DNA. This stratification also applies to the human brain where the oldest part (also called our reptile brain) is the most elementary, while the later formed layers (such as the mammalian brain and the

neocortex) lie over it. Note that ‘sedimentation’ is more than a suitable metaphor. Anyone who delves into human nature cannot but take the whole history seriously. Everything in mammalian life is relevant to humans. After all, we are mammals too – a fact sometimes denied in the social sciences. And at the same time we are more than mammals – a fact that certain biologists are inclined to forget. In order to do justice to human nature we must understand that our life is determined by the interaction of *two processes*. However, the main question remains *how* our natural evolution and our cultural evolution interact. There is no point in arguing about which of these two is the most important. Anyone who disregards either natural or cultural evolution will never understand how we human beings are made up. Partly for this reason, the appendix to this essay contains two time series illustrating a number of decisive steps from both processes. In the meantime the challenge is not only to see that both forms of evolution play a role but also to understand their interaction.

Personally I think that this interaction takes new shape in every phase. That’s why I shall treat the dialectic of matter and mind for each stage. The concept of matter refers to the material dimension of human existence. It comprises all the actions which are necessary to ensure that there is sufficient food, that there is a certain safety and that we can reproduce. This necessarily takes place in a community which has its limits in spatial, temporal and social terms. At the same time, human life always crosses those kinds of limits. We are always dealing with things that take place in another space, another time and another kind of community. I will consider this phenomenon as a kind of ‘daily transcendence’. Human life is never limited to the here and now.³ It is just as much about what we remember of the past and how we imagine the future. Our existence includes not only the living beings we perceive on the spot, but also beings that live elsewhere and we cannot perceive. And finally it is not only about everything we do but also about things we can do or would like to do. Therefore I shall also pay attention to the question how certain forms of mental life like knowing, believing and playing take shape. This daily transcendence mainly results from our imagination – a capacity which already seems to exist in animals but which could develop strongly in the course of human evolution.⁴ Consequently every phase of this process has its own form of mental life elevating people above their basic needs. Think of gaining new insights, believing in gods or ancestors, making music or decorating objects etcetera. Thanks to imagination our mind can temporarily detach itself from material needs.⁵ However, we have to watch out for a too absolute version of this movement and for the philosophical idealism it would imply. I do not advocate a modern gnosis, seeing the mind as a light that

should avoid as much as possible any infection with dark or earthly forces. On the contrary. Dialectics to me means that the tension between matter and mind can only be dissolved if we proceed to practical action.⁶ That is why I refer to specific forms of action which give human existence its own color in the phase concerned.

One more word about the sources I have used and the way in which I will organize the insights gained from them. From a methodical point of view this essay tries to develop a form of *empirical philosophy*. Two extreme sides of thinking come together. On the one hand I greatly respect the facts which empirical research brings to light. We can only look with admiration at the way in which numerous ethologists, archaeologists, psychologists, biologists, historians and sociologists have enriched our knowledge of man. As a philosopher I take their work very seriously, including the contradictory findings that their books sometimes present. Let us accept all the more or less hard facts, using them as the countless little stones in order to compose a mosaic picture. On the other hand, I allow myself a great deal of freedom when it comes to arranging all these insights. Due to the multitude of disciplinary perspectives and the scope of our approach in space or time it is almost inevitable that my argument will acquire a speculative character. For me that is not an objection but a challenge. Can we tell a coherent story about the genesis of human nature? How can we play the intellectual game in such a way that the result is more than a collection of facts or loose insights? Do we allow ourselves such a playful way of working, or do we cling to the security of the academic specialism leaving the social imagination to novelists or filmmakers? Be that as it may – anyone who wants to create a new image of human life must indeed venture a great deal.

These considerations determine the structure of the following argument. I shall first sketch out the main lines of an evolutionist perspective, referring to both natural and cultural evolution and to the question of how these two processes interact (part 1). After that we will delve into the most basic layer of human nature: the dynamics related to our life as group animals and the way the earliest humans have lived (part 2). Subsequently I discuss the phase of nomadic hunters and gatherers, a way of life which covered the largest part of our history and which both spiritually and temporally shows its own characteristics (part 3). Then comes the phase in which agriculture was all-important (part 4) and finally the most recent phase which is dominated by various civilizations (part 5). Finally I'll explain that these four histories still always motivate us through the values or moral principles we support (part 6). That does not mean that this heritage is recognized or appreciated by everyone. On the contrary: there are many tensions

creating dynamism even within one cultural community, and especially within a world in which various cultural communities are defying one another (part 7). I shall conclude with a brief philosophical reflection on the Holy Spirit (part 8).

b. Evolutionary dynamics

In order to sketch the evolution of human nature, we have to dwell briefly on a few basic principles of evolution in general. I realize, however, that the theory developed by Darwin is still giving rise to discussion. That is understandable because its use shows a certain ambiguity. On the one hand the theory of evolution caused a conceptual landslide which seems unprecedented in scientific history. It overturned many traditional ideas about human existence and has now reached other disciplines than biology. According to Chris Buskes it is virtually impossible to point to a field of science that is no longer ‘affected’ by Darwin’s ideas. It underlines the explanatory power of this way of thinking. On the other hand it also creates the risk of biological reductionism, the idea that all aspects of our life result from physical or natural processes. That risk increases because research into DNA or our brain is making great progress and many hope that the old dream of a materialistic worldview will finally come true.⁷

What role does evolutionary thinking play in this essay on the genesis of human nature? I will use it in three ways. First, I will use some of the *fundamental insights* that scientific research has produced over the past decades. My attention is especially drawn to biologists who have studied (certain parts of) human development and whose insights are widely recognized. This applies, for example, to scientists such as Stephen Gould, Frans de Waal and Jared Diamond. Furthermore, I believe that evolutionary thinking can be used as a *heuristic tool* in cultural-historical research. We then ask to what extent certain mechanisms, processes and phenomena playing a role in natural evolution can shed light on the history of cultural groups and societies. Take for instance the idea of cultural heritage that passes from one generation to the next. Or the idea that the rate of survival of certain groups increases as the social environment changes. Finally, I also use evolutionary thinking to see current questions in the *right perspective*. Many believe that their lives are completely unique, that the times are accelerating and that our existence will look different very soon. Given that nervousness, I would like to stress that some things don’t change at all and that – especially in the case of important innovations – we always have to ask ourselves what the best mix of old and new components is.

The core of evolutionary thinking is surprisingly simple. It boils down to a combination of four axioms: 1) all living creatures produce more offspring than can stay alive; 2) the characteristics of each population show a certain variation; 3) part of that variation is passed on to the next generation; 4) in the long run, especially those organisms whose characteristics fit well with the natural environment survive.⁸ It is almost incomprehensible that the application of these four principles explains so many different phenomena in living nature. Whether it concerns the flowering and decline of animal species, the way in which their bodies are built or their behavior in collecting food and reproduction – biologists can nearly always provide a plausible explanation with the help of these principles. However, it is good to warn against two misconceptions that arise outside biology when it comes to natural selection. Many think that species are selected, but that is incorrect. Selection always refers to the individual organisms that reproduce or die, while mutating or varying characteristics only concerns the genetic material. According to Gould, we must always differentiate by level: genes are subject to mutations, individuals to selection and species to development.⁹ A second misconception is that the famous formula of ‘the survival of the fittest’ refers to the strongest or most powerful individuals. However, the question is whether an organism with its properties match with the demands of the environment and which properties increase the chance of survival.

Although the theory of evolution is accepted by all biologists, it also raises questions that are difficult to answer. A first one was formulated by Stephen Gould and deals with the way the formation of species formation in nature. He stated that a new species usually originates as the split-off of an old line which continues to exist as such. Such a separation takes place mainly in smaller populations and also occurs relatively quickly. The explanation for this would be that the balance between organism and environment is temporarily broken so that the old strain produces a new shoot. It is consistent with a well-known fact from paleontology that the line of descent of certain fossils hardly changes for many millions of years until suddenly a new branch appears. Consequently, the evolutionary process is characterized not so much by permanent change as by rapid transitions between two stable states.¹⁰ Breaking that equilibrium mainly results from local circumstances. It sometimes takes on a dramatic form. Think of the great extinction wave which occurred at the end of the Cretaceous period and which, apart from the dinosaurs, wiped out fifty percent of all marine invertebrates. Yet this sudden appearance and disappearance of species is puzzling. It is not clear why the variation *within* species is relatively limited, while the variation *between* species is very strong. It

makes evolution a dynamic and non-linear process characterized by unpredictability. So small differences in the initial conditions can result in enormous differences in the outcomes.¹¹

Another intriguing issue is sexuality. After the birth of life about four billion years ago, reproduction took place asexually for a long time. It was only after two billion that the specific form of reproduction that we call sexual arose. It is based on the fusion of large but scarce egg cells on one side and numerous relatively small sperm cells on the other. From that time on, we are dealing with a fundamental incongruity between masculine and feminine properties. While the egg cell represents a relatively large value, that of sperm cells is small. This is reflected in the way the process of sexual selection works: it is the 'expensive' woman who chooses a 'cheap' male cell while men compete with each other for the favors of a woman. A lot is often at stake, because choosing a partner is one of the most important events in the life of organisms that reproduce sexually. Although this is almost self-evident from a human point of view, it is one of the strangest phenomena in biological evolution. It is certainly not the most logical way to ensure the reproduction of living organisms. It could even be that sexuality is an accidental outcome of other processes. Stephen Stearns and Rolf Hoekstra remind us that we still don't know why such a complicated, costly and inefficient phenomenon as sexuality exists.¹² For us humans that is only a poor consolation. Nature has not only left us with an incongruity between the sexes but has also made other areas of life being affected by this difference. We will see interesting examples of this.

Apart from questions to which the answer is not yet available, there are also issues that give rise to considerable differences of opinion among biologists. Take for instance the idea that evolution implies a form of progress. At first sight this idea is obvious. After all, life began with single-celled beings and in the course of many millions of years produced a great diversity of more complex organisms. This fits with the image, sketched by Aristotle, of a 'scala naturae' in which insects stand on the lowest step and one can then ascend to man via the fish and the birds. There are still biologists who defend the progressive character of evolution. Richard Dawkins, for example, argues that living creatures are engaged in a kind of arms race through which their design reaches a higher level over time.¹³ Others see this as a subjective interpretation. They tend to the idea that evolution knows no clear progress and perceive a capricious pattern with all kinds of ramifications. This idea is supported by Darwin himself, who in 1837 drew the image of a tree with side branches and further branches.¹⁴ Moreover, some time later in the margin of a book he noted the following sentence: 'Never use the

words higher or lower'.¹⁵ In other words: he had his doubts about the idea that evolution would produce ever higher forms of life. Someone who emphatically rejects this popular idea is Stephen Gould. He contests the proposition that evolution shows a general tendency towards progress or increasing complexity. For example, the mammoth with its dense coat is not a 'better' version of the elephant. The only difference is that the hairy mammoth can survive in a cold climate, while the hairless elephant thrives in a warm climate. Everything that is considered progress comes down to adapting to local conditions.¹⁶ Meanwhile, this emphasis on concrete situations does not contradict the idea that living creatures pursue certain goals. After all, every organism chases matters such as reproduction, safety and sufficient food. Given that pursuit, improvements or steps forward are possible. The point is, however, that these are the *outcome* of evolutionary mechanisms and not a general tendency which would propel the whole process.¹⁷

A final controversial issue is the question at which level natural selection occurs. We already saw that it is not the genes or the species but the individual organisms that are selected. This process can take various forms. One form concerns the amount of offspring an organism produces during its life. This selection works quite strongly, because the time to reproduce is limited for each individual. Moreover, in this field large variations occur between individuals. There is a second form called sexual selection that focuses on finding suitable partners. It is usually based on female preferences, with male partners being selected according to body size, fighting capacity or other qualities. Finally, there is a third form which concerns the cooperation between related group members. All these forms have in common that the selection concerns individual characteristics. An important question, however, is whether selection also plays on the level of groups.¹⁸ Can we say that, thanks to certain characteristics, one community has more chances of survival than others? And if so, how should we imagine that? Edward Wilson is one of the biologists who indeed defended the idea of selection at group level. Assuming that many living beings have to find a balance between selfish and social tendencies, he believes that selfish individuals have an advantage when it comes to competition *within* groups, whereas groups that have many social individuals have an advantage when it comes to competition *between groups*. In doing so, he argues not only that groups are indeed selected, but also that groups are selected on the social behavior of their members.¹⁹ The last word on this issue has not yet been said. I mention it because it is related to our conception of cultural evolution and the role of social or moral values in that respect.

c. Humanity and history

The answer to this last question requires a brief recap of the previous one. After all, the notion of cultural evolution presupposes that there are things characterizing the phenomenon of evolution in a more general sense. By way of summary I will mention the following: 1) each population shows a certain variation of characteristics; 2) those characteristics are partly hereditary in nature; 3) selection from the environment leads in time to adaptation; 4) although species remain stable for a long time, sudden changes also occur; 5) the process as a whole is not so much about progress as about differentiation; 6) the idea that selection is not only about individuals but also about groups is the subject of debate. Which of these elements are relevant when we consider processes of cultural evolution?

To begin with, everyone knows that human societies show a lot of cultural variation. It is even a cliché to say that cultural differences are great, if not unbridgeable. It is equally clear that this variation can arise from all kinds of circumstances. We may consider genetic factors, the effect of language, codes regulating kinship, the outcome of war or conflict and the way in which people produce. I myself would like to draw attention to the fact that human imagination also generates constant variation. Day in and day out our mind brings forth new ideas, proposals, fantasies, inventions, discoveries, ideas, innovations, improvements and other trials of which the vast majority immediately disappears as useless, while only a few are spared or converted into practical deeds. However, we must realize that everyone has to deal with this process and that the human imagination has been at work for millions of years. That forms an interesting parallel with genetic variation. Natural evolution implies that our genetic material undergoes an infinite number of small changes. By far the majority of these mutations are useless but some prove to be valuable and allow the organism to better adapt to its environment. Cultural variation works in a similar way: it is based on a variation that the human mind generates by itself and then has to endure the test of real action. Incidentally, this parallel of mental and material variation is less far-fetched than philosophical materialism suggests. For natural evolution it is equally based on the fact that matter and information interact.²⁰

Then the second element: processes that pass on (a variation of) properties to the next generation. That is unmistakably the case with cultural evolution. No matter how great the differences of opinion between various authors, they all realize that human history differs from natural history in this respect. The idea defended by Lamarck that evolution in the animal kingdom asks for a learning process has been

definitively refuted. In nature there is only one form of heredity implying that parents only pass on their genes to children. People, on the other hand, do pass on the insights, experiences, ideas, values or skills they have acquired to a next generation. That is precisely what education, training, education and other forms of cultural transfer are meant for. It enables a process of accumulation in which later generations build on the lessons learned by earlier generations. An author like Gould, who has always fought the identification of natural evolution and progress, recognizes without a doubt that our cultural history shows a Lamarckian dynamic.²¹ This doesn't conflict with the axiom of adaptation to the environment. It was precisely because of this dynamism that man was able to adapt to very different circumstances. His ability to learn even ensured man to influence his environment in a new way.²² In this respect the third axiom also applies to our cultural development.

A similar story can be told about the fourth axiom. The question is whether the way in which new species present themselves in nature, the way in which they often survive for millions of years and the way in which they cease to exist can be applied to cultural evolution. However, it is not entirely clear which cultural units are analogous to the biological concept of species. In the past species were defined by the possibility of reproduction, nowadays one assumes genetic kinship. Continuing the analogy one would say that cultural kinship is decisive. Consequently, the process of speciation, applied to human history, will mainly concern groups that have a cultural affinity. Think of people who share the same faith, speak the same language or are part of the same civilization. In that case it is not difficult to see the patterns described by Gould at work. The history of human civilizations often has long periods of stability in which evolution seems to be limited to the replication of skills, values or ideas that were created in the past. The remains from this history show lines of descent that resemble the evolutionary pedigrees established by paleontologists. An important difference is that the survival of human civilizations never spans millions of years and at most a few thousand years, but the same patterns seem to emerge.²³ We see cultural communities that 'suddenly' cease as there are periods in which new forms of civilization 'suddenly' originate.²⁴ We will see several examples of this later, although I realize that the explanation of these phenomena is still at a speculative stage.

Whether our cultural history has to be understood as progress cannot be answered unequivocally. In certain respects man was an overwhelming success. We have been able to develop ourselves into an all-powerful predator, a creature that not only prevailed over numerous animal species and plants, but even transformed whole pieces of the

earth. And all this thanks to our ability to gather or further develop knowledge. At the same time it is very doubtful whether this can be called progress. Parallel to our greatly increased capacity to change natural processes, our capacity to exploit, suppress and destroy grew. It is understandable that many authors hesitate to use the word progress. They realize that our technical development is much faster than our moral strivings. A growing number of them also question the changes in the past that were always understood as a step forward. Take for instance the attention to specific downsides of the agricultural revolution.²⁵ However, this does not alter the fact that cultural evolution often has a certain direction. This applies to the transition from small-scale communities where people are strongly connected to large-scale urban societies where millions of people live together anonymously. This transition is valued very differently, but it is not simply undone. The same applies to many innovations in the technical, economic and political field that have ultimately led to complex, large-scale and differentiated communities. Measured against the criteria of our natural evolution, a certain amount of progress can also be seen here.

Finally, the question of whether the selective processes in cultural evolution are at individual or collective level. We already saw that this is controversial in biology but for human history the conclusion seems clear. Human groups, communities and societies are essentially more than a sum of individual members. The workings of social, cultural and moral ties lead precisely to an organism that reacts to its living situation *as a whole*. Joseph Henrich argues that these communities can only exist by developing, maintaining and transmitting social and cultural norms. The members of that community must even internalize those norms and appreciate them as a goal. Only when people have internalized these norms will they be able to navigate independently in a world that is tempted to act selfishly in many ways. Balancing short and long term benefits or seeking a balance between one's own interests and the common good is usually a difficult matter. Social life is greatly helped if one keeps certain moral principles high. This is already noticeable in young children. They spontaneously tend to punish anti-social behaviour and turn away from group members who ignore standards. The moral intuitions of adults are saying the same: we instinctively disapprove the violation of social norms.²⁶ In small-scale communities, the punishment for misconduct often takes the form of individual retribution in which personal and moral considerations are mixed up. In urban society, the punishment for misconduct falls to a specialized body such as the police or the judiciary. However, these are always units which form a normative whole and as such are subject to selection.

All in all, I think we see the evolutionary dynamics at work not only in our natural but also in our cultural history. Nevertheless, the crux of the matter is that these two processes do not take place in isolation but constantly interact with each other. Human existence only takes shape through a co-evolution in which both biological and sociological elements play a role. In that respect humanity as a whole is no different from the individual. With regard to that individual one can always ask whether his behavior is mainly determined by ‘nature’ or by ‘nurture’, but that remains a fruitless debate. We need only think for a moment to realize that we humans are the product of a permanent interaction of matter and mind, nature and culture, body and civilization. We have to take the term product literally: the result would become incomprehensible if we were to omit either of these factors. Furthermore many forms of social learning occur in which culturally determined values or patterns change the functioning of our brains in a sustainable way. This shows the extent to which our brain is subject to cultural influences, albeit that we are not dealing with genetic changes but with biological ones. According to Wilson, this interaction of biological and cultural evolution is not just six millennia old but many hundreds of millennia.²⁷ According to Henrich, the amalgamation of cultural and genetic evolution is a self-reinforcing process. He points out that cultural skills such as cooking or the use of fire by early humans has led to physical changes in their digestion, which further increased the importance of using fire or cooking. Another well-known example is the ability to digest lactose: this is unevenly distributed in the world where peoples who have some form of livestock farming are able to process lactose and other peoples are not. Here again, a cultural evolution results in genetic and therefore physical changes.²⁸

A final illustration is the physical reaction of men in the south of the United States who embrace a culture of honor. For them, any insult immediately results in the production of stress hormones, while in the north of the United States this happens less often. This pattern originated in the rugged mountains of Scotland and ended up in the Southern States via immigrants centuries ago. In this case it is norms or values that evoke a physical reaction.²⁹ Of course, the effects of socio-cultural developments can also be unfavorable. Daniel Smail points out that certain forms of male dominance, which are common in chimpanzees but were suppressed for a long time in human hunters, revived in agricultural society.³⁰ This illustrates that the co-evolution of nature and culture is still always at work. We all know that material processes sometimes have a strong effect on our mind, as the use of alcohol and other drugs proves. With the opposite process we seem to have problems because it does not fit in the materialistic image of man.

Nevertheless there are many indications that this reverse effect does exist. Henrich, for example, makes it plausible that our cultural evolution has already had tangible effects for a few million years, ranging from the ability to manufacture weapons to cognitive skills such as imitating others or obeying moral norms.³¹ But in doing so, I am anticipating my story. Let's first look at the long period in which our life as group animals took shape.

Part 2: Time of mammals

For many centuries we thought in the West that there was a fundamental difference between humans and animals. We humans can act in a moral way but animals only chase their urges. Humans have a mind but animals are not even capable of language. That is why humans produce civilization and culture while animals are part of nature. Yet the credibility of this still popular idea is rapidly being undermined. This began in the middle of the nineteenth century when Darwin set out his theory that we humans are descended from animals. Although that theory gradually gained more support, there are still countless authors who believe that humans and animals are separated by huge differences. But in recent decades the situation seems to have changed. The research of biologists, ethologists, psychologists, paleontologists, pedagogues, anthropologists and brain scientists have brought so many insights together that the distinction between humans and animals has been weakened. Frans de Waal in particular has done important work in this field. Since his discovery that primates regularly reconcile after a violent conflict, he has not stopped doing further research into the affinity of humans and animals. He was certainly not the only one and the field of research in question has expanded enormously. In fact, the past decades have witnessed a scientific revolution, signaling that man has lost his old position as lord and master of living nature. We know that humans are a particular species, but for the rest we have to recognize that we are animals *too*. What does this mean?

a. Group animals and behavior

Let us start from the fact that humans, primates and many other animals naturally form a community. As a consequence we are subject to contradictory tendencies. We have a selfish and a more social side. We stand up for the interests of ourselves and our children, but at the same time we tend to care for other members of our group. We are engaged in a constant rivalry and are equally capable of working together. More abstractly, our behavior results from the combination of competition and cooperation without either of these two tendencies being able to determine everything. Even in the case of the closest cooperation between partners, their interests never coincide completely and a certain balance between competition and cooperation has to be sought.³² Wilson summarizes this aptly by saying that we are both saints and sinners.³³ This applies not only to humans but also to other group animals such as dogs, dolphins and great apes. They, too, constantly have to find a

balance between selfish and more social urges. One side of this Janus head is all too well known to us. Economists have been telling us for many years that people mainly pursue their own interests, that they compete with others and that they often have no desire to conform to a greater whole such as the community or the state. In our capitalist economy this idea is broadly accepted. Therefore it may be wise to pay extra attention to our other face and to explain the social side of our existence.

Let's start with the research Frans de Waal did at the beginning of his career on power and sex in chimpanzees. These great apes have a distinct hierarchy in which one male ape is the leader: the so-called alpha-male. You easily get the impression that this is the strongest ape, but that turns out to be a misconception. In order to conquer power in the community, a candidate must enter into all kinds of coalitions with other male apes and be supported by them. There we see a remarkable parallel with the way power is conquered in a democracy: without social support the leader will not last long. Creating such a support not only requires a lot of interaction but also something called triadic knowledge: understanding the game as it is played between three (or more) group members.³⁴ That game also produces conflicts that are sometimes violent. However, there is no war of all against all. In general, chimpanzees who interfere with a conflict are very selective. Once a position of power has been conquered, there are both benefits and concerns. One advantage is that men have sex more often as they take up a higher position in the community. There is a clear relationship between power and sex and it is mainly the most powerful ape that benefits from this. At the same time, that position brings a lot of worries, if only because there are always young male apes who want to drive the leader off his throne and are waiting for a chance to do so.³⁵ That kind of behavior is not strange to the human species either, as everyone who studies politics knows. It is therefore no coincidence that De Waal gave his book the title *Chimpanzee politics*.

Another parallel between humans and mammals touches on the differences between men and women. In general, males rival for the favors of a female while she decides which male will be chosen.³⁶ This is unmistakably the case with the great apes just mentioned. Male chimpanzees are constantly looking for sex, but it is up to the woman to decide what will happen. If she does not want to, the party is over.³⁷ As a result, male and female animals have a different interest, not only in terms of sex but also in terms of struggle or status. Because status is very important for men, all kinds of conflicts occur between them, while quarrels between women are very rare. In the colony researched by De Waal, males had on average a conflict every five hours, while in females

it happened once every hundred hours. Moreover, the stakes of these conflicts were not the same, as men are always interested in status, while women mainly protected other animals. Comparison with people's behavior shows that humans are dealing with the same tendencies: while men like to deal with strategic questions and want to win, women mainly seek contact with someone they like and focus on personal relationships.³⁸ This incongruity between man and woman also plays a role in man's love life. As anyone with some life experience can confirm, both sexes do not always want the same thing. Many men are eager to conquer women, while women are looking for love in a lasting relationship. It partly determines their reactions to adultery and jealousy. What disturbs the man is that another man has intercourse with his wife, while the woman especially fears that her husband has loving feelings for another woman.³⁹ Also in the professional sphere we often see that men are often focused on power or status while women focus on relationships and personal affairs.

In all mammals, newborn animals have to rely on the care of their parents for a relatively long time. Parents therefore spend a lot of time, attention and energy on their children without this being to their advantage in the short term. According to Frans de Waal, the tendency for help, support and other forms of social behavior ultimately goes back to this kind of parental care. He even considers the care given by mothers to be the most precious and long lasting investment in other creatures found in nature.⁴⁰ It seems to be a paradox from an evolutionist point of view. After all, the question is how genetic progress at the expense of others (which remains a fundamental motive of evolution) could result in the ability to live with others and care for them. And that is not all. It often happens that certain animals run an extra risk to help others. This applies for example to a bird that warns with its call for the arrival of predators. With this call he draws attention to himself and therefore runs an extra risk of falling prey to the same predators.⁴¹ Here we see a kind of altruistic behavior that does not seem to fit well with evolution. Nevertheless, it has now been established that many species and certainly mammals have an altruistic impulse. When observing danger or suffering they feel the tendency to assist group-mates. Experiments with human children and primates show that this tendency is already visible at an early age.⁴² Previously, people were misled by the fact that young children cannot articulate their feelings and therefore assumed that they mainly think of themselves. But the facts show that young children spontaneously start to comfort or help other children.⁴³

Now it is not the case that animals help in any random way. It is largely determined by the nature of their relationship with another

animal. That is the core of the so-called relational model that Filippo Aureli and Frans de Waal developed twenty years ago. This model also predicts that the chance of reconciliation after a conflict is greater when the animals' relation is better. It may mean that animals spend more time with each other or that they help each other more often than average. What matters is not so much the specific content as the certainty and the value of that relationship for the individuals involved. In addition it is important what history the animals have with each other.⁴⁴ Incidentally, the mechanisms that cause this behavior are less complicated than they may seem. In fact, only a few cognitive conditions must be met: a) animals must be recognized as individuals; b) they must have sufficient memory to remember what happened in the past; c) mutual cooperation must be advantageous. These conditions apply to a large number of group animals, but are especially common in mammals and birds. This suggests that it is an old mechanism in evolution. It could also be that in the course of evolution it originated several times and separately in collaborating species.⁴⁵ Be that as it may: it is equally valid in humans. We are indeed naturally inclined to help others and mutual relations play an important role in our lives. A well-known fact, for example, is that care is often given spontaneously when it comes to family members, that it happens less easily when it comes to other members of the community and that it hardly ever happens when it comes to outsiders.⁴⁶

For many, the insight that animals help each other came as a surprise. After all, for a long time we thought that social and certainly moral behavior was a unique quality of humans. Nevertheless, the ethological research of the past decades brought an even bigger surprise by showing that group animals proceed to comfort and reconciliation after conflicts. While the propensity for such behavior varies considerably from species to species, it is most common among animals that have a close social relationship with each other. Precisely because the mutual relationship has great value, conflicts go hand in hand with fear. In response to this, there is a tendency to settle the conflict, restore the relationship and emphasize the positive.⁴⁷ The latter can happen by embracing, kissing or fleeing each other and exchanging other expressions of friendship. Sometimes this happens spontaneously, but it can also take some time. In chimpanzees the former rivals sometimes sit opposite each other for more than fifteen minutes without anything happening. But once they look at each other – at first hesitantly and then for a longer period of time – it doesn't take long before the reconciliation occurs.⁴⁸ Biologists think that the will 'to repair things' has an important function from an evolutionist perspective. Because selfish action inevitably leads to competition and conflicts, in the course

of millions of years quite strong repair mechanisms have arisen protecting the ability to live and work together in groups.⁴⁹ That these are indeed elementary mechanisms is also shown by the fact that children offer comfort at a young age. They do not have to learn this behavior because it is shown spontaneously.⁵⁰ It does not follow from this that parenting has no influence. On the contrary, it is of great importance because you can both limit and strengthen natural tendencies. But the need for and the tendency to offer comfort as such already evolved a long time before humans conquered the world.

By the way, natural circumstances also play a role in this. In drawing up the theory of evolution, Darwin and others focused mainly on tropical areas where there is often an abundance of food. In these areas competition will be stimulated. But those who – as Peter Kropotkin later did – take a look at areas where the natural environment is much poorer, are more likely to see forms of cooperation between animals.⁵¹ The presence of predators and other dangers have a similar effect. It forces group members to settle conflicts and strengthen their social relation. In other words: the more animals are dependent on each other in arranging sufficient food, safety or sex, the easier it will be to repair damaged relationships.⁵² According to Frans de Waal, this is a first step towards moral sentiments. In both human and animal communities, loyalty to one's own group plays a crucial role. The whole of nature revolves around the question of who is friend and foe. Even plants have something to do with that question. We cannot separate moral considerations from the community in which life takes place. That is why these considerations have a great influence within our own group, while we easily look down on people falling outside this group.⁵³ What is important, however, is that this group is gradually growing in size. How did this development occur?

b. Feelings and intentions

The process of scaling up, which is decisive for human evolution, cannot develop without the 'daily transcendence' mentioned above: the ability to transcend the limitations of the here, the now and myself. Its source lies in our emotional world and is shared by all mammals. See for instance the way we deal with dogs or cats. They give us something a reptile would never do, namely affection. They react to our feelings and we react to theirs. That is why interactions in mammals such as entering into conflict or settling it trigger a whole series of physiological reactions, including an increased heartbeat, the production of specific hormones, the formation of certain exclamations or facial expressions, etcetera. An important goal of these reactions is to reduce anxiety

resulting from conflict. That fear is not only felt by the loser but also by the individual who started the conflict, and all the stronger the more valuable the relationship was to him or her. Thus maintaining or restoring good relationships is a primary concern in all group animals.⁵⁴ This applies not only to matters like food or safety but also to sex. See for example the role a hormone like oxytocin plays in human relationships. It is released when lovers caress each other's skin, in sexual intercourse, at birth, in the care of children and even when you only think of a loved one.⁵⁵ In other words: our evolution generated numerous processes in order to establish, maintain or restore emotional relationships.

A single word about the contribution of so-called mirror neurons in this context. It refers to a specific group of brain cells that become active as soon as we see other persons acting. It appears that we perceive these actions not only externally, but also internally. We engage in a form of imitation and realize the underlying intentions. That also happens when we listen to someone and even when we read sentences which represent a certain action. In all these cases we silently imitate the actions in question with the result that we immediately come into contact with the mental state of the other person.⁵⁶ That ability is presumably rooted in the earliest childhood or based on the many interactions that occur between the newborn and other persons.⁵⁷ Once mirror neurons are formed, they incite us to mimesis: to imitate those we perceive and especially those we like. This continues into adulthood. The more we feel related to others, the more we are inclined like them and the better we can feel their intentions. This is one of the reasons why feelings are often contagious.⁵⁸ In a dormitory with babies, the crying of one baby can cause them all to cry after a while. Also in public life certain emotions can be contagious, as waves of panic, hatred or loyalty illustrate. This is not limited to the human species. Mirror neurons are active in all primates, with the result that imitating and being imitated also plays an important role in them.⁵⁹

It's nice to know which parts of the brain become active in this process, but strictly speaking, that knowledge is not necessary to understand how human interaction takes place. After all, human feelings are expressed through the face. Initially it was thought that the expression of faces is determined by cultural factors, but Paul Ekman discovered that these are natural processes. As soon as human emotions occur, they trigger certain facial muscles and that happens in the same way in all cultures. He also discovered that there are a limited number of basic feelings immediately recognized when looking at a face. These are: sorrow, anger, surprise, fear, horror, joy and contempt. Although we do not immediately know *why* someone else has a specific emotion, we

immediately see or hear (albeit often unconsciously) *that* the person has a certain emotion.⁶⁰ Strikingly enough, this mechanism appears to work in two directions: it is true that someone's face is the expression of his or her inner state, but at the same time perceiving that face leads to a change in the inner state of the observer himself. In this way faces and mirror neurons have similar effects: they make that our own inner self and that of others are constantly connected.⁶¹ It is the biological basis of our intersubjectivity and underlines once again that we humans are to a much lesser extent the autonomous individuals than we usually assume. In fact we are constantly exchanging feelings and intentions, a view which had already been expressed by certain philosophers before and is now confirmed by a form 'hard science'.⁶²

So it turns out that transcendence is indeed an everyday phenomenon. Transcending my direct environment takes remarkably little effort. In fact, a characteristic aspect of ordinary human intercourse is that I am connected from the outset and without realizing it to the inside of my fellow human beings. This experience is also related to something getting a lot of attention today, namely empathy. That concept refers to the ability to feel along with the emotion shown by another person. It is not only about understanding one's feelings cognitively, but also being able to respond to them affectively. The capacity to empathize is not limited to people we know or with whom we have a social bond. Empathy means that we can imagine the feelings or intentions of another person, that we take over his or her place *in our imagination* and make contact with his or her inner self.⁶³ Although this is a general human ability, it is not surprising that women show empathy more often and spontaneously than many men. We are not dealing with a deep gulf between man and woman, because the differences are only gradual in nature. However, male imagination is more often about impersonal processes or systems and the female imagination is more about personal relationships or communication. There is a connection with certain cognitive skills such as spatial insight and the use of language. Women are more inclined to express feelings and intentions, whereas men are more often engaged in the use of tools or in organizing space.⁶⁴ It is not clear whether these 'masculine' skills are as old as the 'feminine' ones, but we may assume that the latter developed long before the appearance of man. Empathy is closely related to the lives of mammals, if only because mothers can only take care of their children by having a sensitive antenna for the needs of others. Who knows that the evolution of mammals has been going on for two hundred million years, with every mother – from the smallest mouse to the largest whale – feeling the urge to care for vulnerable offspring time and time again, will realize that we cannot attribute this urge to cultural codes.⁶⁵

Actually, the ability to perceive the feelings or intentions of others developed in all group animals. Without that ability, cooperation and mutual help is simply impossible. This is especially true for humans – mammals specialized in cooperation. Michael Tomasello writes that every form of cooperation presupposes a shared intentionality on two levels. Firstly, individuals need to coordinate their actions, and that is only possible if they have a specific role, know what that role demands, understand how to deviate from that role, and to determine whether the collaboration was a success. Secondly, experiences and intentions also need to be shared on a collective level. Otherwise you will not get any further than pairwise cooperation. That is why people should not only keep an eye on their direct partner but also on other group members and understand what motivates them.⁶⁶ This means that daily transcendence reaches beyond two people who understand each other: you have to get in touch with the intentions, values and norms of the whole community. Therefore people had to develop a so-called ‘theory of mind’: the ability to realize what others think, feel, expect or intend. The core of this is not specifically human. Many birds and mammals understand the goals and intentions of others, but in humans this is highly developed.⁶⁷ Already in their first year of life, babies seem to realize the intention of a certain behavior and as toddlers they can assess the mental state of others quite well. From the fifth year of life, children have a complete *theory of mind* in which they not only distinguish between what they themselves think and what another thinks, but also imagine how that other person looks at them.⁶⁸

We are not allowed to apply these kinds of human abilities to animals, if only because language is lacking in the animal kingdom and it is difficult to find out what the intentions of certain animals are. Nevertheless, De Waal holds the conviction that intentions and even values occur in the animal kingdom. He believes that the distinction between the world as it is and the world as it should be (often referred to by philosophers as a difference between ‘Sein’ and ‘Sollen’) is equally relevant for animals since they are clearly pursuing goals. They can show ‘indignation’ at the moment that the behavior of other animals (or people) obstructs the realization of their goals. Animals profiting at the expense of others are punished in the community. They have to respect certain norms and these make no sense unless there is some idea of value. De Waal even goes so far as to talk about ideals in relation to animals, referring to the fact that animals not only know what the situation *de facto* is but also have a certain idea of the situation *as it should be*. That is why the spider repairs its web when it is somehow disturbed or ants repair it when their anthill is damaged.⁶⁹ This sheds a different light on behaviors such as comforting and reconciling. They

are not only motivated by reducing anxiety but can also refer to relationships as they should be. In any case: the pursuit of ‘repairing’ situations and relationships after a damage does not only occur in people and probably has a long history.⁷⁰ According to some authors, this means a certain rehabilitation of the ‘causa finalis’ of which Aristotle already spoke and which had fallen into disuse due to the mechanization of the world view.⁷¹

That animals pursue certain goals in the field of food, sex and safety is a truism. Less self-evident is that they also pursue social goals or things that, with a little good will, can be seen as moral goals. Research in recent decades has shown that these kinds of pursuits do exist in animals. Science seem to abandon the old idea of a gulf between man and animal in this respect. Rather, there is a gradual transition in which the first incitements to moral behavior in numerous group animals already exist. In any case chimpanzees and other primates have been shown to embrace the following principles: cooperation, reciprocity, social norms and compassion.⁷² This requires two clarifications. First of all these principles do their work mainly at an emotional level. Our judgement about persons, situations or behavior is largely determined by what Adam Smith coined as ‘moral sentiments’. Human reason acts only later and often does not get further than rationalizing our emotional preferences.⁷³ Secondly, we need practical action to know whether our fellow human beings are serious about their values. Altruism, for instance, only counts if it is expressed in deeds. You may proclaim the highest ideals, but we only believe it when you are willing to sacrifice something. Behavioral psychologists speak of CRED’s in that context, referring to actions that strengthen someone’s credibility. These are often signals or behaviors that are at the expense of ourselves. We expect political, moral and religious leaders to do more than preaching beautiful ideals. They must act accordingly and, if necessary, give up their own interests if they want to be credible.⁷⁴ This applies to every form of daily transcendence discussed in this paragraph. Consolation, compassion, reconciliation, altruism, reciprocity, help, cooperation, honesty and justice imply that living beings imagine something beyond the here and now, but they only make sense if they are involved in reality and converted into social action.

c. Relational repertoire

Although the mechanisms of mammalian life are still at work in human society, there are of course major differences between the two modes of existence. These differences include the history, complexity and scale of social life. However, it is a mistake to think that only humans form a

complex society – as is demonstrated by different species of insects. It is therefore interesting to see that complex modes of existence have something in common which Edward Wilson describes as ‘eusociality’. A decisive phase in the process leading to eusocial species is characterized by the construction of a protected nest from which food is sought and in which the young are raised. Once that step has been taken, the species only has to fulfill one condition, namely that parents stay in the nest and raise new generations together. Subsequently, a division of tasks occurs in which certain group members take relatively more risk by collecting food while other members avoid risk and concentrate on taking care of offspring.⁷⁵ This illustrates that a social order can only be created when cooperation in the field of food, sex and safety is arranged. This brings us to the question of how the first people lived and what consequences this had for their biological-cultural evolution.

This question is not easily answered because the transition from primates to homo sapiens took place gradually. One can argue about the moment when the most profound changes took place. I am referring to a study by Joseph Henrich in which he analyses the many factors that contributed to the success of the human species. The story begins with an African ape that walked on two legs about four million years ago and whose brain size barely surpassed that of the chimpanzee. This so-called *Australopithecus* had his hands free to manufacture primitive tools. He killed and slaughtered other animals using tools of stone. Moreover, his upright gait gave him a better view of his surroundings and he was able to develop great speed when hunting. As a result his diet increasingly consisted of meat. Approximately two million years ago a new species arose out of this species called *Homo erectus*. This one distinguishes itself by a more developed brain, which is reflected in tools that are clearly processed. In line with this development, things such as using fire, cooking food, making and throwing spears and travelling longer distances arise.⁷⁶ These changes marked the transition to a specific human way of life. Decisive in this respect is that the ability for social learning developed strongly. After all, this means that group members can make use of skills developed by others. It was this species that left Africa two million years ago to settle in every continent. Its body length slowly but surely increased and finally reached 1.80 meters, while the volume of its brain grew to about 900 cc.⁷⁷

In addition to collecting food, people began to work more closely together in the field of reproduction. This is less obvious than we would assume on the basis of contemporary preferences. In primates, sexual life is quite promiscuous, so men rarely know who their offspring are. Therefore they spend little time on taking care of children. This task comes down entirely to the mothers who anxiously protect their

offspring from all kinds of dangers.⁷⁸ However, this changes when the group size increases and members of the community start working together. There is more trust and caring for children becomes a collective affair. Sarah Hrdy notes that no primate entrusts her baby as easily to others as mankind, although that baby is very vulnerable because of its early birth. That would indicate that people started taking care of each other's offspring at an early stage.⁷⁹ Research into small-scale human societies indeed shows that mothers take care of about half of the direct child care. Of the rest, about half is done by brothers, sisters and grandparents, while the other half is done by fathers, aunts and others. It turns out that grandparents have a special role to play because they can use their lifelong experience to ensure the transfer of cultural skills.⁸⁰ As a result of all this, the care and upbringing of children eventually became a matter for the whole family, if not the whole village. Viewed from an evolutionist perspective, this is only possible in a species where personal relationships and social learning reinforce each other.

This is closely related to a development that has been occupying scientists for a long time, namely the remarkably strong growth of the human brain. While the volume of our brain was only 500 cc two million years ago, it eventually reached a size of 900 cc. This expansion came to an end about 200,000 years ago, because the birth canal has a fixed width. However, this expansion continues after birth as human brains stay to increase in the first year of life. All in all they form our most characteristic organ consuming about a quarter of our daily energy, while that for other primates does not exceed ten percent.⁸¹ Although various causes for this remarkable development have been mentioned in the past, a certain consensus seems to have been reached. In 1992, Robin Dunbar discovered that the volume of the neocortex in primates is closely related to the average size of their group. The larger the community, the larger the brain. Moreover, he discovered that the average group consists of about 150 people.⁸² Consequently, today we assume that the growth of the human brain was mainly caused by an increased intensity of social interaction and the cultural processes associated with it. Slurink summarizes this aptly by indicating a form of co-evolution in which our software (culture) and our hardware (brain) strengthened each other. It was ultimately the complexity of our socio-cultural life that brought about a larger brain.⁸³

It is not only about the size of our brains but also about the fact that they continue to develop after birth. Because the human child is born prematurely, his parents have to take care of him for many years. Compared to other primates, humans have a very long childhood in which they can and must practice many skills for later life. An

unintended but important consequence of this is the human ability to play. That ability is not only found in humans: we also can see it in birds and other mammals. However, there must be a relatively safe and relaxed situation. Playing does not develop where hunger, stress or dangers occur. Precisely because humans have a relatively long childhood in which they are protected by their parents and other adults, children can devote themselves to all kinds of play.⁸⁴ It usually involves a form of pretending, i.e. imitating a natural movement or action without being serious. Think of frolicking where children pretend to be fighting or running where it seems as if they are running away from an attacker. Although it is mainly young people who enjoy these kinds of games, they also like to be played by adults.⁸⁵ In fact, every sport is based on pretending and so is the practice of art. I'll come back to it later and just note that once again it's a form of daily transcendence. One of the clearest and also oldest examples of this is the making of music. At first sight, singing, dancing or drumming contribute little to bare survival and yet they can enchant us: they evoke a certain mood or take us into an atmosphere that transcends the here and now.⁸⁶

Thus we see that the interplay of human imagination and physical world was working already in the earliest phase of our development. It created something which I characterize as a 'relational repertoire'. This contains all forms of cooperation developed in the course of our evolution and ending in a certain mix of matter and mind. So the level of 'Sollen' goes beyond that of 'Sein'. This is in line with the idea expressed by Henrich that human communities can only exist by developing, maintaining, transmitting and internalizing collective norms. We humans are naturally inclined to follow those norms and we do so on a scale that was unprecedented in the animal kingdom.⁸⁷ Even young children spontaneously tend to punish anti-social behavior, and adults instinctively disapprove of transgressing social norms, although they often develop various reasoning to suppress those feelings. The latter occurs particularly in large-scale societies, where punishing anti-social behavior is a task of specialized agencies such as the police or the judiciary.⁸⁸ But that does not alter the fact that every form of human coexistence has a moral dimension. Time and again we have to deal with normative questions. Do we put our own interests first or our common interests? Are we going for the short or the long term? Do we see each other as friends or as enemies? Do leaders want to serve the common good or exercise power? Do we keep our promises or do we renounce them? Do we perceive strangers as enrichment or a threat? Are we faithful to our ancestors or do we stimulate innovation? Is there room for dissidents or do we have to prevent them? It goes without saying that the answer to these kinds of questions is largely determined

by cultural, religious and philosophical motives. But it must always be translated into relational terms because we humans are primarily group animals and never stand alone in life. Precisely because 'life' and 'together' coincide to a large degree, we can never separate the normative from the relational dimension of life.

Part 3: Time of the nomads

The main difference between the earliest people and their predecessors is the way they work together. The social life of chimpanzees and bonobos, for example, is strongly colored by mutual rivalry. This is equally true when dealing with sexual partners or looking for food and other means of subsistence. Where there is cooperation, it is usually motivated by good individual relationships, but it remains incidental in nature. In any case, ape species are not dependent on that cooperation for their survival.⁸⁹

a. Hunters and collectors

In that respect, the situation of the earliest people turned out to be very different. According to Michael Tomasello, they had to join forces from the outset, mainly because the search for sufficient food in ecologically unfavorable areas was not easy. In the first instance, therefore, cooperation arose from strategic motives. But over time, mutual dependency became stronger and stronger, which changed the nature of the relationship. This process began more than a million years ago and eventually led to the circle of human sympathy and mutual aid becoming wider than individuals. While other great apes obtain most of their nourishment from a solitary effort, early humans acquired most of their food from a joint effort. Moreover, in the long run there were few relapse options if cooperation failed.⁹⁰ All this was especially true for the hunters and gatherers who settled in Europe. It is certain that from 500,000 years ago people lived on this continent.⁹¹ The ecological conditions at that time were really dreadful. Part of Europe was permanently covered with a thick layer of ice while the rest consisted of cold steppes and forests. There was a considerable difference between summer and winter, which had consequences for people and animals. The herds of large grazers moved north when it was less cold and returned south in winter. They travelled enormous distances and that pattern also determined the lives of people who hunted them.⁹²

The hunt itself demanded intensive cooperation. This also occurs in other predators such as lions, but the difference was that humans were looking for the strongest instead of the weakest, oldest or youngest prey. This required knowledge of animal behavior as well as the coordination of one's actions. From archaeological findings we know how these hunters presumably behaved. They followed a year cycle, meeting each other in autumn to intercept herds of reindeer and other grazers. In terms of size, such a group of hunters is estimated at fifteen to thirty people.⁹³

A much followed method was to first surround the herd and then chase it into a narrow gorge to slaughter it.⁹⁴ Although leadership in such actions was inevitable, hunters did not have a formal or fixed hierarchy. At most there was a temporary form of leadership in which personal qualities were decisive. Many authors therefore speak of egalitarian communities – something which has been extensively documented for contemporary hunters and gatherers and which is also assumed to apply to the past. This way of life does not mean that there are no individual differences. On the contrary, they are very important to a person's reputation. That is why old or experienced hunters enjoy a high status and younger hunters like to follow their actions. But leaders cannot use their position to accumulate or exercise power, let alone to dominate the whole group.⁹⁵

Apart from food supply the oldest Europeans obviously had to take care of their offspring. The division of labor in this respect was obvious. While hunting was a male affair, caring for small children came down to women. This also applied to all kinds of activities carried out in (the immediate vicinity of) the camp site.⁹⁶ We do not have to exaggerate our idea of these camps because hunter-gatherers were very mobile and carried all their possessions with them. Due to their mobility, the number of births remained relatively low. If the community broke camp, the mothers could only take one child with them. They would only afford another child when the previous toddler walked fast enough to keep up with the group. For today's hunter-gatherers, there still is a period of about four years between the children with the result that population growth remains limited.⁹⁷ The population density was therefore very low. For example, Leendert Kooijmans estimates on the basis of ethnographic data that no more than 0.4 to 0.6 individuals per hundred square kilometers lived in northern Europe at the time. The area now called the Netherlands would at most have counted a few hundred Neanderthals. Shortly after the last Ice Age, that population was five times as large, but that too was still far below the population density reached with the farmers.⁹⁸

The egalitarianism of the hunters was not limited to the practice of hunting, it also related to their family life. They did not yet have a kinship system in which older men are in charge and women are subject to men. They lived mainly in loose family groups that were part of a larger community but without permanent power relations. In terms of size, these families did not count more than a few dozen people. The leadership was informal and resulted from personal qualities.⁹⁹ The possession of land was unknown. Family groups moved freely through a large area to hunt and collect food. Apart from a basic division of labor by gender, economic specialization did not occur. Conflicts could only

be settled in an informal way and social relations were characterized by reciprocity.¹⁰⁰ However, this should not seduce us to paint an idyllic picture of this existence. They had to deal with numerous risks which came partly from within and partly from outside. The ecological situation was full of dangers. Apart from the harsh conditions caused by cold and ice, there were always floods, violent storms and periods of drought or fire. Internal risks included conflicts with rival groups that were often violent. Even today, seventy to ninety percent of hunter-gatherers experience wars or robberies every five years. That proportion has probably not been lower in the distant past.¹⁰¹ In that sense the life of our nomadic ancestors can be called rather unsafe.

The fact that from the earliest times until the agricultural revolution people lived mainly from hunting and gathering does not imply that their existence never changed. Approximately 100,000 years ago, an important development started, the exact nature of which gives rise to a great deal of controversy. Scholars disagree not only about the moment at which this change occurred but also about the circumstances that caused it. For example, Jared Diamond speaks of a Great Jump Forward because from that moment on people were given access to superior weapons and tools. According to him that jump occurred 50,000 to 100,000 years ago and was caused by genetic changes.¹⁰² Some authors believe it was more of a gradual development that may have been older.¹⁰³ Others argue that new forms of thinking and communication arose at that time, which would mainly involve the development of language. That is why Yuval Harari speaks of a cognitive revolution.¹⁰⁴ Tomasello, on the other hand, argues that competition for scarce resources intensified some 150,000 years ago leading to the emergence of larger groups. This would have led to a radical change in socio-cultural life.¹⁰⁵ Finally, there are authors who point to a new wave of migration in which Homo Sapiens left Africa to conquer other continents. He also reached the European continent, which experienced sharp climatic fluctuations during that period. Because Neanderthals already lived here, both species lived side by side for a while, until the Neanderthals became extinct about 40,000 years ago. Be that as it may, something happened in the existence of the hunters and gatherers that forced them to change their way of life.¹⁰⁶

In this context, the emergence of ‘tribes’ is particularly relevant. This term usually refers to a collection of families that have a common culture and language. But their size was initially smaller than that of the tribes we know today. According to Diamond, the group of hunters and collectors at that time was only a few hundred people. In any case, that number was so small that numerous personal contacts could be maintained and that the kinship relations were known to everyone. In

terms of organization, the difference with the previous family groups was not very great. Social life was still characterized by broad reciprocity. The degree of specialization remained low and so did the exercise of power. There were at most informal forms of leadership, but a solid upper layer, let alone a ruling class, did not exist. Even if a *Big Man* emerged, he had to take part in hunting or gathering food.¹⁰⁷

b. Gestures and spirits

Viewed from our modern civilization one would call the material existence of the ancient hunter-gatherers primitive. This was also the *communis opinio* among scientists for a long time. Only with the agricultural revolution would mankind have taken its first steps on the road to a better fate. In recent decades, however, this interpretation has been called into question. For example, it became clear that the transition to agriculture also had disadvantages and some authors even believe that this revolution mainly brought deterioration. Similar questions could be asked when we consider the life of hunter-gatherers. We always thought that the transition to agricultural and later urban society was a form of cultural progress. Perhaps a more positive appreciation of hunter-gatherer and their societies is required in this respect. Unfortunately, we hardly have any data to make well-founded statements about this. Our written sources are never older than six thousand years and the surviving remains of cultural life remain without explanation. Nevertheless, by combining archaeological data, neurological insights, game theory models and the observation of children, scientists are beginning to form a first picture of mental processes that took place in the time before the agricultural revolution. Let us therefore ask the question of what human nomads learned, celebrated and believed.

With regard to the first question it is crucial that imitation was the basis of human learning processes for a very long time. The ability to learn from others makes the main difference between humans and other primates. We humans like to copy each other's actions and very often that happens in a completely spontaneous way. We also have a talent for discovering from whom we can learn something and we take that into account at a very young age. This tendency continues into later life, as is shown by the fact that young hunters like to seek the proximity of more experienced adults and do their best to imitate their actions.¹⁰⁸ This was of decisive importance in the Stone Age because all elementary techniques had to be learned emphatically, for example, the production of axes from flintstones. According to Kooijmans, the processing of these axes is more complicated than you would suspect and requires

great skill. It is an art that has been passed on from father to son for 100,000 generations. This applies not only to axes and other flint tools but also to wooden javelins that were made 325,000 years ago and made hunting more efficient. The same goes for bow and arrow: an invention that was made 65,000 years ago and which enabled a hunter to hit his target from a distance of fifty meters. Flutes have been found that were made from bird bones 40,000 years ago – on a replica of which even the American national anthem could be played.¹⁰⁹ All this is only possible because human nomads have observed, imitated and improved the actions of their more experienced peers with endless perseverance. In this sense, the Stone Age shows a lot of slow but decisive learning processes, resulting in a steady growth of human skills.¹¹⁰

With hindsight the practical usefulness of these processes may seem obvious, but it could be that they originally had a different motive. Think of the tendency to play, a behavior which we find in more animals and which matured in humans. According to Brian Boyd it is the root of all arts. He compares the drawings made 34,000 years ago in the Chauvet cave with the jumping movements of dolphins swimming in the sea. In both cases we perceive a graceful gesture that is not necessarily needed for survival and is mainly made for pleasure. This leads to certain patterns that are attractive to the creator, participant or spectator and were further developed in certain forms of art. Boyd therefore describes art as a cognitive game with pattern formation from which new sensitivities and skills may develop. That would explain why art occurs in all human societies and why people spend so much time or energy on it. He suspects that music is the oldest form of art and he believes that our sensitivity to it stems from a distant evolutionary past. In any case, recognizing and replaying melodies, rhythms and movements is remarkably easy. Participating in rituals where human bodies reinforce each other's movement, as happens during a dance but also during a military march, gives us feelings of joy and strength. This happens just as well in the visual sphere. Immediately after birth certain visible patterns are recognized and they provoke a playful reaction from the newborn.¹¹¹

Note that none of these activities require words or stories. The ability to recognize and play with patterns is determined by language only to a limited extent. That is why Boyd states that observing, understanding and remembering actions or events is a pre-language matter which played a major role in early mankind. Social learning occurs in the first place by imitating gestures. Meanwhile, it is a way in which man transcends the limitations of the here and now by making something that is both useless and graceful. This may also apply to the cave drawings made in Chauvet and elsewhere. We do not know what

intention the makers had or what function their images fulfilled. But there is no doubt that we are dealing here with art, that the makers knew what they were doing and that they showed great skill in depicting animals.¹¹² It is therefore no coincidence that several authors make a connection with the cognitive revolution already mentioned. According to Kooijmans, 40,000 years ago there was a period of artistic blossoming that created new and more complex forms of cultural life. We see images of the entire animal world: from mammoth to ibex and especially many horses, bison and cattle. But just as much predators like a lion or a bear with the occasional bird or fish. Sometimes not only the environment but also man himself is portrayed in a recognizable way. These women and figures are, for want of better, called ‘magicians’. There is a huge difference with the simple lines put on shells 500,000 years earlier, underlining the fact that human imagination went through a considerable development in the Stone Age.¹¹³

This applies no less to the third form of transcendence I mentioned. Apart from the sphere of improving and imagining human nomads transcended the limits of their actual situation by believing. In order to explain that I must first say something about a curious module in the human brain that developed early on in our evolution and is described by psychologists as a Hypersensitive Agency Detection Device (HADD for short). By this reflex we think at the slightest movement that an ‘agent’ is at work, i.e. something or someone who causes this movement. This does not apply as long as it is clear which perpetrator or cause brings about a certain event. But as soon as an unexpected movement occurs while the cause remains vague or unknown, the module described as HADD starts to search for an agent that might explain the event. It takes us great difficulty to believe in coincidences and we unconsciously look for a person, agency or cause that caused the event in question¹¹⁴. In doing so, we apply the *Theory of Mind*, which was so valuable in dealing with our fellow humans, to a much broader domain including animals, plants, and even inanimate things as well as people. Here we have a first step towards animism. The latter represents a world where not only people, but also trees, rivers or mountains have a soul of their own. We then believe that there is a whole domain of spirits, demons, gods or spiritual forces that manifest themselves through visible things and which you’d better keep as friends. Such a belief is not uncommon in traditional societies where life is vulnerable and you meet few people.¹¹⁵ It also applies to young children who initially make no distinction between living and inanimate things. In this way, they attach a certain meaning to all things, for instance by treating the stone they bump into as a ‘mean stone’.¹¹⁶

Incidentally, animism is highly functional in the lives of hunters and collectors. You can't be too careful in a situation full of risks. You better detect too much than too few enemies. Those who react immediately to the possible presence of predators will not be harmed, while those who do not react fast enough will be at great risk.¹¹⁷ This module may also be helpful in a practical sense. An experienced hunter has enough on the smallest traces to know which animals have visited a certain place, how healthy or tired they were and at what speed they moved.¹¹⁸ Precisely this ability has strongly determined the mental life of former nomads. Their religious feelings stemmed from their belief in an animated nature, a world full of spirits, ancestors and demigods who all exerted great influence on human destiny. Research into contemporary societies of hunters shows that this is still the case nowadays. They too live in a world in where spirits explain why the wind blows, why thunder rumbles and why ancestors appear in dreams.¹¹⁹ It was this world that the Paleolithic cave paintings depict. What we see reflects an animistic belief, the idea that natural phenomena are endowed with a spiritual force and the attribution of supernatural powers to animals, plants or places.¹²⁰ In that context, an important role is reserved for the shaman – someone who has the special gift of making contact with natural spirits and communicating with them on behalf of the community.¹²¹ It seems no coincidence that the appearance of graves in Europe date from the same time. After all, burying only makes sense if you believe that something of the deceased parents or relatives will continue to exist after their death. In this respect, caring for ancestors and worshipping natural spirits are closely related.¹²²

c. Ritual repertoire

This brings us to the question of how to conceive the cultural life of prehistoric nomads. The answer will depend on the way in which the material and immaterial dimensions of their existence are related. From a material point of view, the lives of the earliest human nomads were subject to numerous limitations. They spent much of their time gathering food, population growth remained very low and they were surrounded by many dangers. Nevertheless, the human imagination did its work in that situation as well, resulting in many technical improvements, artistic forms and spiritual conceptions. My thesis in this paragraph is that the interaction of both planes mainly occurs in ritual practices. I make grateful use of the monumental work which Roy Rappaport wrote about this.

How should rituals be understood? Rappaport defines ritual as the performance of a more or less unchanging series of formal acts and expressions of which the code is not entirely determined by the performers themselves.¹²³ It is worth dwelling for a moment on four elements in this definition. Firstly, the performers of a ritual have little or no influence on the actions they perform. The gestures they make, the objects they use and the words they say are fixed, and their origin usually remains unknown. Nevertheless, everyone knows what has to be done. Secondly, the formal side is of great importance. Ritual asks for stylized objects and behavior which are carried out at a specific time and place. A lot of attention is paid to things like rhythm, repetition, variation, parallelism, mirroring or decoration. Thirdly, every ritual resists change. One holds on to the existing traditions with great stubbornness and renewals are limited to a few details. Fourthly, it is important that a ritual is actually performed. It only makes sense if it is realized in a physical way while people participating. Therefore there is a big difference between the description of rituals as we find them in a prescription or book and their actual execution.¹²⁴ This characterization is of course rather abstract, given the enormous variety of rituals. They occur in every society and vary greatly in length, complexity, timing, elaboration, legitimation and cultural setting. Rappaport's definition mainly refers to a *certain type of action* which, according to him, is not yet symbolic. I have to explain the latter.

On the basis of the semiotics developed by Pierce one can distinguish between index, icon and symbol, the latter concept presupposing a form of language. It concerns a tangible sign with an intangible meaning. Consequently, human language enables us to communicate about things that are not present. Rappaport believes (contrary to a common opinion) that the symbolic dimension plays a minor role in rituals. Of course a lot is said, but that has little influence on everything you *have to do* during a celebration, liturgy, rite of passage or ceremony. Not the symbol but the index comes first: a matter or event that refers to the effects of certain substances, be it of a physical, social, normative, spiritual or moral nature. This makes that ritual acting highly effective. You can listen to a story, embrace a belief or acknowledge a value without compelling consequences for your behavior. The opposite is true for rituals: you can only participate by acting, making any doubt superfluous. Moreover, rituals always have a strong effect on the participants: they bring about temporary and sometimes permanent changes in the human organism. Finally, in most cases rituals are not a private matter. The question is not what a person thinks, feels or believes personally, but of what he or she does in the presence of others. The focus is not on inner experiences but on the

public event and that is precisely what makes ritual acting so important.¹²⁵

Why is ritual acting so important for hunters and gatherers? To begin with, it provides order to a world with little specialization, where relations are dense, and where separate institutions do not exist. Rappaport mentions the distinction between an analog and a digital code, the former working with gradual changes and the latter with discrete differences. Most natural and social processes take place in an analogous way: winter turns into spring, young people gradually get older, interaction between man and woman is ambivalent, etcetera. Rituals, on the other hand, like to make a visible distinction: the beginning of spring is marked with a feast, the transition from boy to man requires circumcision and some things are simply taboo for women.¹²⁶ In this way, ritual provides the existing world with an amount of clarity, unambiguity and predictability. It regulates many things without explicit rules. That is why gestures such as separating, cutting or dividing always play an important role: the continuum of ongoing processes or events is divided. By the way, the oppositions thus generated never stand alone. The difference male/female, for example, is associated with differences such as hot/cold, heaven/earth, favorable/unfavorable and the like. Which oppositions prevail and how the fabric of associations fits together, varies per culture. But every culture presupposes the making and maintaining of these kinds of differences. Rituals help, because the ordering of these differences at a certain celebration, ceremony or liturgy will not be changed.¹²⁷ In this way ritual create a certain differentiation by separating all kinds of things that go together in ordinary life.

At the same time, many rituals generate the opposite movement by repairing differences that are unjust, too large or inappropriate. It can be reconciliation after a conflict, making peace after war, thanking ancestors who helped with a problem, sacrificing to a wrathful god, etcetera. Many rituals are aimed at restoring reciprocity. Rappaport says that the liturgy often has a healing effect. Not only by restoring the breach, the violation or the deficiency on a symbolic level, but also by integrating different things on a practical level. The liturgical order can reconnect separate entities, processes, substances and domains. While the unity of the real world is always at risk we have ritual activities in order to protect, maintain or restore the unity we are looking for.¹²⁸ In rituals from later times (about which we have written sources) that is emphatically said. The goddess Maat from ancient Egypt, for example, stands for the promotion of law, order and harmony. By devoting themselves to Maat everyone contributes to maintaining cosmic order and social stability. Spiritual principles from other traditions such as

Asha (Iran), Rta (India), Nelli (Mexico), Wakan Tanka (Sioux) or Hozho (Navajo) have the same meaning: performing the rituals dedicated to them restores continuity and prevent any disturbances in the world order.¹²⁹ Among the ancient hunters and collectors, sacrifice in particular played an important role. After all, hunting means killing animals and thus a violation of the cosmic order, so you have to fear for the revenge of a certain spirit or god. To compensate for that form of guilt a sacrifice may be required. This means that ritual acting not only brings differences and differentiation (see above) but also reconciliation and integration.

By combining both axes, rituals fulfill an important function for the community as a whole. They contribute to the preservation of social cohesion, the exercise of social control and the socialization of individuals. Many psychologists seem to think that small-scale communities automatically do justice to human nature. According to Henrich, that idea is wrong as the unfolding of our nature also depends on norms and values in such communities. Kinship, for example, is only partly genetic in nature and largely depends on the cultural code you share. Ritual acts contribute to this in their own way. Think of things like synchronous singing, dancing and other movements, undergoing trials, fighting a danger together and sharing experiences under the influence of drugs or physical efforts.¹³⁰ Another function of ritual is that it strengthens social control. Given the fact that religious or legal rules of large-scale societies are missing, the maintenance of cultural codes is mainly done by ritual: A and B are taboo, person C has to act if D occurs, at moment E ceremony F has to occur etcetera.¹³¹ In fact, it is mainly rituals that make the community being more than a collection of individuals. If there is one way of life to illustrate this, it is the hunter-gatherers who have been able to survive under difficult circumstances until now.

From the fact that rituals fulfil an important function we cannot conclude that they originate from conscious intentions. Nor does it exclude that they have unintended consequences. I want to mention one of these consequences briefly, because it is relevant to the next stage of our cultural evolution. We already saw that ritual ceremony sometimes has a powerful effect on the participants. This applies par excellence to the experience of the divine, as understood by Emile Durkheim in his famous book *Les formes élémentaires de la vie religieuse* a century ago. The movements, tempi, repetitions and resonances of the ritual happening drag the participants along and cause a form of ecstasy that differs greatly from everyday consciousness. This may lead to the experience of *communitas* as Victor Turner once has described.¹³² In that experience not only the boundary between the self and the others

dissolves, but also that between the sphere of spirits or gods and ordinary reality. At such moments the numinous presents itself. One has the feeling of standing face to face with a force that is both frightening and overwhelming. The evocation of this experience is seldom done by language and it is nearly impossible to express it in words.¹³³ But it is an integral part of ritual action and strengthens the awareness of forces, spirits and gods beyond ordinary reality that exert great influence on the lives of hunters and gatherers. In that sense too human activity is born from the marriage of imagination and material needs.

Part 4: Time of farmers

This part is about the way of life that has developed since the agricultural revolution. Although I am mainly focusing on European history, it should be mentioned that agriculture was invented several times and did not have the same effects everywhere. It is now certain that this invention occurred in the Middle East, the Andean region, China, Mexico and the eastern part of the current United States. Not only the places but also the times varied, as the earliest known agriculture dates back to the time of 9000 B.C. while in the eastern part of the United States it took place more than six thousand years later. Moreover, the results differed because the areas in question did not have the same plant and animal species. The fact that we are dealing here exclusively with the Middle East is not only because European agriculture originated there, but also because the whole complex of agriculture, the rise of cities, the emergence of scripture and the formation of great empires for that area has been well documented.¹³⁴

a. Farmers and kings

Let's start with the consequences agriculture had on the material dimension of life. The most striking difference, of course, is that people started providing food in a different way. Farmers do not live from hunting but grow grains and other edible plants such as legumes or chickpeas. They were helped by favorable ecological conditions and by a large diversity of plants that could be domesticated. They also domesticated animals that provided meat, milk and manure. The main species were sheep, goat, beef, pig and horse. The complexity of this step should not be taken lightly. In order to be eligible for domestication, mammals had to meet a whole series of conditions, and in the end only fourteen of the 148 species managed to do so.¹³⁵ Moreover, one can only speak of an agricultural holding when it comes to the integration of arable farming and domestic animals. Once this has been done, a new way of life emerges that not only produces large quantities of food but also food that can be stored over a longer period of time. The loot collected by hunters spoils quickly, while grains can be stored without any problem, making the business much more secure. On the one hand because the grain stock provides people with food all year round, on the other hand because as seed it makes a next harvest possible. It even ensures that people who are not farmers themselves can still eat, allowing a certain division of labor to develop.¹³⁶

This production method also had far-reaching consequences in other areas. For example, the high degree of mobility that characterized the existence of hunter-gatherers came to an end. Farming requires a permanent place of residence where the land for arable and livestock farming is not too far away. Consequently, we soon see groups of houses and villages that become the center of agricultural activity. At first they were simpler huts, but later people started to build real houses and whole towns. There is some debate about the order in which these processes took place. Did one first proceed with the domestication of grains and animals and then choose a permanent place to live, or did the process follow the opposite order? Kooijmans is convinced that setting up and shaping a permanent place of residence was the first step and that people then started to grow their own food.¹³⁷ For us the answer to this question makes little difference, because farming and living in the same place invariably belong together. Another major consequence of the agricultural revolution was the growth of population size. By selecting and cultivating edible plants, the amount of calories available increased. Consequently, one hectare of cultivated land could feed many more shepherds and farmers – perhaps ten to a hundred times as much – compared to the same piece of land used by the former nomads. Whereas the interval between two births in the latter was usually four years, among farmers it dropped by half. In the end, a self-reinforcing process emerged in which the production of food led to more residents while these residents produced more food through their agricultural activity.¹³⁸

However, the agricultural revolution also created new risks. The food supply that provided the inhabitants with food and seeds was a target for rival groups or robbers who forcibly wanted to take some of the grain, livestock or even roommates. In order to protect themselves against that danger, some members of the community had to concentrate on the use of weapons. Initially these were not real specialists but farmers who worked part of the year as defenders or warriors. Only agricultural societies that achieved high productivity were able to develop a separate class of warriors fed by farmers. But the reverse was equally true: the farming population needed warriors to protect themselves against attacks. Johan Goudsblom typifies the situation nicely by saying that the peasant life was vulnerable but productive, while the warrior life was brave but destructive. Both groups were dependent on each other, which undoubtedly explains why military-agricultural societies often emerged.¹³⁹ Incidentally, the dangers were not only external. Precisely because a considerable supply of food was produced, a social upper layer could evolve that appropriated part of the proceeds. This implied a big difference with the way of life of earlier

nomads. While leadership in the latter was at most temporary, in all peasant societies rulers with a relatively high status easily emerged sooner or later. Social differentiation increased, which was reflected, among other things, in the size of their homes.¹⁴⁰ In time, this would lead to the formation of so-called chieftainships, in which power was not only centralized but also hereditary. In this way, a large part of the common production ended up with the head man, his family members and subordinates, a situation that regularly characterized society in the Middle East some five thousand years before the beginning of our era.¹⁴¹

This centralization was not just the result of greed or lust for power. It also resulted from the increasingly large scale character of social life. The agricultural revolution brought both population growth and a higher degree of specialization, which made a more differentiated stratification inevitable. According to Diamond, this trend has characterized the past 13,000 years: small, relatively simple communities giving way to larger, more complex units. It ultimately leads to the formation of an urban society in which economies of scale and centralization reinforce each other. As population density increases and the number of contacts grow, so do the conflicts among people. Resolving them becomes a matter for special officials, laying the foundations for jurisdiction, legislation and state formation.¹⁴² The first states were established in Mesopotamia 3700 years B.C. They involve the establishment of central authority, the collection of taxes, the growth of a civil service, the functioning of a judiciary, the development of scripture for administrative purposes, the execution of public works and the acceptance of a state religion.¹⁴³ Elsewhere in the world similar developments occurred, as the example of China illustrates. An important point, however, is that the economic basis of these cities and states was still agricultural production. Only because a large part of the population was engaged in arable farming and cattle breeding day in and day out, could the ruling class develop a culture of which we still admire the remnants.

For the sake of completeness I sketch with a single word the expansion of farming to Europe. It is clear that by no means all developments from the Middle East also occurred in our region. Processes such as urbanization or state formation only occurred here much later, and even agriculture experienced a slightly different development. It is therefore good to realize that at the time when agriculture in the Middle East flourished, Europe was still entirely populated by hunters and gatherers. The expansion of the agricultural company westward came 6800 years before the beginning of our era and was only completed three thousand years later. There has been a lot of debate about how this worked: did the European nomads slowly but

surely become farmers (acculturation thesis) or did they have to make way for the farmers who settled in their regions (migration thesis)? According to Kooijmans it has now been established that the second thesis is correct. The farmers travelled along various routes to the west and the middle of Europe with the result that they arrived in Portugal around 5500 B.C. and not long after that in the area that is now called Germany. Farmers who settled in the middle of Europe possessed a characteristic culture that is referred to as band ceramics because of the decorations on their earthenware. They took an entrepreneurial attitude, as shown by the fact that they proceeded to cultivate European primeval forests on a large scale and to build spacious wooden houses. In terms of settlement, they had a pronounced preference for the loess lands that stretch from east to west on the European continent.¹⁴⁴ Although farmers and traditional hunters lived side by side for a number of centuries, the latter eventually had to clear the field. The only exception to this was the vast lowlands north of the loess lands mentioned above. This region was inhabited for a long time by people who were mainly engaged in hunting and fishing. It was not until about 3400 years B.C. that real agriculture made its appearance in the coastal areas around the North Sea.¹⁴⁵ An interesting question is to what extent this prehistory influenced the mentality that, according to several authors, would characterize the later Vikings.¹⁴⁶

I conclude this paragraph with an issue that has already set many pens in motion. Why did the development on the Eurasian continent become such a great success? This question is important because agriculture originated in different places. Assuming that the inhabitants of Europe and Asia have no particular inborn characteristics, there must be another explanation for the success and subsequent expansion of the agricultural revolution which began in the Middle East. According to Diamond, this success stems from the combination of a few factors. The most relevant one is that Europe and Asia form one large landmass stretching over a great distance from east to west. It means that plants adapted to the climate at a certain latitude can easily spread east and west. As a result, most of the crops that originated in the area of the Fertile Crescent can be found in nature from France to Japan. By the beginning of our era, the cereals with which the agrarian revolution started, were grown over a distance of almost 13,000 kilometers. This continuous land mass also made two other things possible. Through the coexistence of man and animal, agriculture generated new infectious diseases and they too could easily find their way from east to west or vice versa. Consequently, people in this region became resistant to these diseases at an early age. Moreover, the nature of the landscape made an intensive exchange possible. This became even stronger with the

domestication of the horse around 4000 B.C., because it was possible to travel greater distances per day on horseback, both in trade and warfare. The invention of the wheel a thousand years later had a similar effect. All this allowed grains and crops as well as weapons and germs to spread throughout the Eurasian continent, which eventually led to a relatively rapid expansion of agriculture. In North and South America a very different situation occurred, not only because the longitudinal axis of both land masses ran from north to south, but also because Central America contains a narrow passage that hampered the exchange. Something similar applied to Africa, albeit that the obstacle here did not consist of an isthmus but of a desert blocking the smooth movement of living organisms.¹⁴⁷

b. Divine stories

That brings us to the question what the human imagination did in this phase. What characterized the mental life of the peasants and their contemporaries? How could they shape the pursuit of daily transcendence? Following in the footsteps of Merlin Donald and Robert Bellah, I want to pay special attention to the role of stories or mythology and their representation of the divine.

It goes without saying that stories are much older than agriculture. After all, human language came into being 100,000 years ago, although some authors suspect that this happened much earlier.¹⁴⁸ We can safely assume that the old hunters and collectors did not limit their communication to everyday subjects. They undoubtedly shared stories about demons they feared, ancestors who sought them out in dreams or spirits to which they sacrificed. But it does not follow from this that these stories formed a coherent pattern and thus influenced community life. For a long time ritual actions were more important in that respect and they were – as we have said – not rooted in words but in physical action. There is a big difference between the way stories and the way rituals work. Stories are, as Aristotle already knew, not so much an action as the imitation of an action with the help of language. In this way the imagination can radically separate itself from everyday reality. Because there is not a causal but a strictly conventional relation between the words and their meaning, we can produce sentences, texts and books which evoke a different world or even a world without any connection to reality. We refer to this world with diverse concepts such as fiction, literature, mythology or symbolic order. It also includes religious representations. Yuval Harari considers our ability to talk about fictional matters to be the main characteristic of *Homo sapiens*. He argues that since the cognitive revolution we have lived in a double reality in which

the imaginary world became so important that it eventually turned out to be the basis for coexistence. Any form of large-scale human cooperation – a modern state, a medieval church, an ancient city or an archaic tribe – is rooted in common myths that exist only in the collective imagination.¹⁴⁹

It is about more than fantasy, however, because these stories are only effective if they comply with specific patterns and structures. We are particularly interested in stories in which the hero takes action after a disaster or other disturbance of the existing order has occurred. He goes out to battle with an opponent and experiences numerous trials or adventures in the process. There are supporters who help him but also figures who oppose him. In order to complete his mission, the hero must have great courage, although he can often use magical tools. His journey takes him to foreign lands or dangerous landscapes, but in the end he wins the victory and can return home. We find such patterns in a wide variety of stories, from simple folk tales to complicated TV series.¹⁵⁰ Joseph Campbell believes that all stories have the same tenor, which he summarizes as follows: A hero dares to leave the ordinary world for an area full of supernatural and miraculous things; he is confronted with fabulous powers and achieves a final victory; the hero returns from this mysterious adventure with the power to grant favors to his fellow man.¹⁵¹ Thus we are dealing with something more than the physical gestures that characterize the ritual act. Namely: the representation of actions in a domain that has been detached from physical reality by language.¹⁵²

This does not mean that verbal transcendence is without function. On the contrary, its function is crucial because it offers room for experiments that only exist on a mental level and not on a real level.¹⁵³ Boyd therefore believes that we should consider fiction as a form of art, although this form developed later than other arts such as music and dance, making images, decorating bodies or refining stone axes. He does, however, attribute a specific capacity to that form of art. People were already able to remember certain events and provide them with an explanation. But thanks to stories we can greatly expand this ability. By depicting events or characters, fiction provides a series of examples that make us think about things like good and evil, threats and deception, loyalty and struggle et cetera. They are not examples that we immediately convert into deeds but that above all improve our ability to *judge* human deeds. They influence the way we think about life, including the things that lie beyond ordinary reality. In this way stories liberate us from the limitations of the here and now.¹⁵⁴ This view can be compared with the work of Claude Lévi-Strauss on human mythology. This anthropologist follows a somewhat idiosyncratic approach in two

respects. Firstly, he is less concerned with the diachrony in the sense of the temporal order of stories. On the contrary, he studies themes which in their synchrony form a coherent structure. Secondly he emphasizes the role of cultural oppositions in stories and way they are processed. But he also recognizes that mythology forms a world of its own raising people above the reality of their daily lives. Myth enables people to relate to problems, tensions and contradictions which they cannot solve in reality but which they still have to think about.¹⁵⁵

The latter touches on a third kind of transcendence in the agricultural age: the way in which people began to imagine the divine. Robert Bellah believes that the ability to step out of reality was the main function of religion in the past.¹⁵⁶ The first beginnings go back to the era of hunters and gatherers. They hung on to a form of animism and used rituals to come into contact with the spirits or demons they saw at work in the world. From there the belief in gods and goddesses could develop which eventually – and in accordance with the dynamics of the story – began to populate a world of their own. At first many gods evolved, each with their own specialty. We still see this in Greek mythology where the sea, the sun, love or hunting each have their own gods who are involved in conflicts that are both intense and fascinating.¹⁵⁷ In certain religious traditions this is the case up to the present day, as the world of Hinduism illustrates.¹⁵⁸ One of the main characteristics of these gods was that they remind people of moral principles. Justin Barrett disputes that the distinction between good and evil is a religious invention. That distinction is much older and it occurs in various religions. Nevertheless gods have an important task in this respect. They are all-knowing and see exactly what is going on in our minds. From experiments with children we know that this idea of an omniscient person originates very early. It continues to work into our later lives. That is why in many cultures gods have an major task in maintaining moral norms. Even if someone secretly violates a moral standard, they will punish him.¹⁵⁹ We also know that gods gain more weight when society becomes more anonymous. In small-scale communities such as those of the hunters, respect for moral values will be enforced by the group. But in large-scale or urban societies misconduct will be punished by the gods. Comparative research has shown that the chance of a punishing god increases the more the groups in question are dependent on cooperation.¹⁶⁰ This underlines once again that the mental life of mankind has a practical side.

There were also situations in which the diversity of gods slowly dissolved so that one God remained. That often depended on political circumstances. It matters a lot how states, kings and other authorities deal with the different gods on their territory. In some cases the

formation of a central authority went in hand with the proclamation of one God. In other cases the state allowed a whole pantheon of gods to develop. And it also occurred that people accepted one God without the community in question having a centralized state. An example of the latter can be found in the Old Testament. There it is told how the people of Israel, starting from a certain polytheism, eventually embraced a strict kind of monotheism.¹⁶¹ Entire libraries have been written about how this development took place and whether it corresponds with historical reality. Recently a fascinating chapter has been added to these studies. We already saw that the agricultural revolution not only caused positive things but also new difficulties. For instance the many diseases that arose because people and animals lived close to each other on farms. These problems only got worse as the population density increased and the cities expanded. In addition, the growth of property created problems that had never played a role for the former nomads.

Well, the history of the Old Testament shows how the people of Israel dealt with such disasters. A few years ago Carel van Schaik and Kai Michel published a new reading of the old story. They describe how the belief in strong gods was stimulated by epidemics, ecological catastrophes and social tensions. Religion served as a cultural protection because it explained what caused these calamities and how they could be avoided. The cause would lie in disregard for divine orders and the remedy was to obey them more strictly. This reflex can be pointed out many times in the Old Testament. We read numerous stories about the Israelites who are punished by God for neglecting His laws. That is why they suffer illness, wars, drought or persecution. And just as numerous are the calls to better obey the laws of JHWH. Moreover, these stories explain in detail how to apply those laws when preparing food, making marriages, paying debts, resolving conflicts, etcetera. The message is obvious: Make sure you respect the laws of God and nothing will happen to you. But woe to the one who does not! He will invoke God's wrath not only on himself but on the whole community.¹⁶² It stresses that Israel not only embraced monotheism, but also applied its implications to the details of everyday life. Perhaps other agricultural communities went less far but without being less attached to their gods.¹⁶³ This of course has consequences for the way in which people deal with the tension between the material and mental aspects of their lives.

c. Religious repertoire

Just as the ritual repertoire of human nomads reduces the tension between their belief in spirits and daily routines, religious repertoires

offer a solution to the difference between the reality of peasant communities and the story of God. Apart from this analogy, two innovations can be noticed. Firstly: the importance of the symbolic order increased to such a degree that the sacred became a force in itself (power of the sacred). Secondly: to legitimize their own power all kinds of leaders tried to use the sacred domain (sacredness of power). In this way an ambiguous situation arises in which religious life and the exercise of power influence each other according to various patterns.

Common to all kinds of religious life is that the sacred becomes a specific domain. This is not necessarily the case with the previously discussed rituals. Sacrifices to certain gods do take place and those involved clearly feel the forces that emanate from the ritual, but this is still strongly intertwined with the social life of the group. For the time being a sacred domain as separated from the profane, having its own officials and referring to a supernatural reality, is lacking. Such a domain requires the use of language. Rappaport suspects that the sacred came into being in the course of human evolution at the moment when the symbolic order and the non-linguistic order of ritual got connected. He therefore makes a distinction between the sacred and the numinous. While the latter term stands for the non-discursive, affective and inexpressible aspects of religious experience, the sacred refers to aspects that do take on a discursive form. Most religions develop a discourse that expresses sacred postulates: divine principles that cannot be inferred from reality and yet are accepted by everyone. Like the axiom that there is one God and that He is omnipotent. Or the axiom that there is a cosmological order that people have to maintain by doing the right thing. Or – for our time – the axiom that there are human rights that have universal validity. As long as such sacred postulates are accepted, they exert a great deal of influence, although this can have very different social and political consequences.¹⁶⁴ Hans Joas therefore emphatically notes that the sacred can support the powers that be as well as challenge or criticize them.¹⁶⁵ The agrarian society showed at least four different patterns in this respect.

A first pattern is that religious life *supports* the sacralization of those in power.¹⁶⁶ This happened, for example, in ancient Mesopotamia, a sandy plain where the invention of the plough increased agricultural productivity by a factor of four. As a result, the population density increased rapidly, leading to the first cities built by 3200 B.C. Not only markets but also palaces, temples and monumental buildings were created. There was a social hierarchy in which kings acquired great power. Because there was state religion, kings were seen as a semi-divine figures who required special treatment. This contrasted with an earlier phase in which the kingship had more earthly traits. At that time

he had to mediate between people and gods but he continued to participate in ordinary life.¹⁶⁷ That changed as his power grew and the distance to his subjects increased. He developed into a holy figure to whom even human sacrifices were made in certain societies. In this way the bond between divinity and kingship became stronger and stronger – a tendency that also became visible in ancient Egypt and its famous pyramids. For the Egyptians, their pharaoh himself was divine because Horus was embodied in him.¹⁶⁸ A late echo of that belief can be found in the famous work of Ernst Kantorowicz who argued that in the Middle Ages a king possessed two bodies: one mortal and the other immortal.¹⁶⁹

In a second pattern, religious life does not so much sanctify the ruler as legitimize the existing order by *subjecting* the population to moral and social discipline. This brings us to the priesthood and its somewhat ambiguous role in peasant society. On the one hand, priests made their own contribution to the complex society that had arisen since the agricultural revolution. As specialists in the organization of time and using their knowledge of celestial bodies they were able to draw up a sound annual calendar. Not unimportant in a farming society that depended on the seasons for activities such as sowing, harvesting or slaughtering. They also played an important role in the creation, management and distribution of stocks. This would later culminate in the development of writing. Johan Goudsblom argues that the actions of priests strengthened the chances of survival of agricultural communities.¹⁷⁰ On the other hand, they contributed to certain moral qualities of the community. It isn't self-evident that farmers can resist the temptation to eat their food supply – especially in times of famine. The preservation of such supplies requires a certain degree of social and moral discipline. Perhaps the harvest festival had to help with that. The farmers were allowed to indulge in food and the like for a short period of time, but as soon as the priests gave the signal, it was over and they had to regain their self-control. This also happened with the regulation of sacrifices. Thus, by promoting religious zeal in combination with virtues such as diligence, economy and community spirit, priests were able to strengthen the moral resilience of farmers and livestock breeders.¹⁷¹

A third pattern is the reversal of the previous one, because here it is not religion that supports those in power, but power that *contributes* to a correct course of religious practice. This happened in ancient China before the time that Confucius developed his doctrine. In this period religious sacrifice was reserved for warriors and other members of the nobility. The idea was that a man who took the life of another also had the obligation to make a sacrifice to the spirits that gave him this power. Therefore warriors distinguished themselves from the common people

in two ways: they waged war and they performed the sacrificial ritual. This ritual practice was closely linked to the veneration of ancestors, an element that remained much more important in China than in other communities.¹⁷² Elsewhere, too, rulers sometimes fulfilled a religious task. In certain societies the king was given a prominent ceremonial role because he was closest to the gods of all people. Whereas his subjects used to participate in rituals themselves, they were now reduced to an audience that remained at a distance, while the king celebrated a certain liturgy with his high priests.¹⁷³ This new role did have its consequences. After all, it implied that the king had to use his high position in a more subservient way by providing peace and justice. In that task the belief in gods was useful, if only because they were supposed to help maintain a moral order. It is no coincidence that Hammurapi, in drawing up his famous laws, said to act on behalf of the gods. The king had to act as a good shepherd, he also had to take care of widows and orphans. Ancient Egypt had a time when the king was expected to protect the weak. In any case, Bellah discerned a tendency to attribute moral significance to political power. Once again the king showed two faces. He was seen as a warlord who had to defend his empire against external enemies. But as his power developed, the other aspect also became more important: a prince who protected the poor and defended the law.¹⁷⁴

A fourth pattern was related to the latter, albeit the ambivalence was solved in a different way.¹⁷⁵ Power was strongly *criticized* in the name of the sacred, as happened in classical Judaism. Precisely because the prophets put all their cards on obedience to God, they confronted kings and other rulers time and again. They did not only stand up for God but also for the people who suffered. They reminded those in power that God knows all the needs of his people and that they had better be careful. Here the power of the sacred fully developed, all the more so because the prophets gave up their own interests for the good cause. The selflessness of their behavior only proved in the eyes of the people that they were indeed speaking on behalf of God. Thus the Old Testament prophets became ideal advocates of justice. They took a radical side for the poor or humiliated and were unwilling to temper their tone.¹⁷⁶ This anticipates the situation that we will discuss in the next part, which relates to the so-called axial period. Here the power of sacred postulates, divine commandments or moral principles will increase even more than was the case in the period under discussion here.

All in all, the religious repertoire had a meaning that was as complex as it was ambivalent. It gave hope and support when times were bad, but it also had a disciplining effect. It legitimized the existing power relations, but it also incited kings and other rulers to act righteously. It taught the peasants certain moral qualities which were

more than desirable in a large-scale society, but at the same time prevented them from shaping their religious life themselves. We must keep an eye on this complexity if we are to understand what was going on in the so-called axial period.

Part 5: Time of civilizations

This part deals with the last stage in the process of cultural evolution. It started in the first millennium before our era and includes the emergence of great philosophical traditions such as Confucianism and Buddhism in Asia, the appearance of the biblical prophets and the Greek philosophers in the Near East and the blossoming of religious traditions such as Christianity and Islam in the following period. This is a period often referred to as the ‘axial age’ and has become the subject of an interesting scientific debate in recent decades. As usual, the exact dating is questioned and the main characteristics of the phenomenon itself are disputed. Nevertheless, it is clear that something special has happened during this time. We see the appearance of various inspiring teachers who think about the natural and social order in a new way, who not only criticize many ideas from the past, but also develop their own philosophical doctrine in order to solve or alleviate the problems in human existence.¹⁷⁷ The axial changes are important to us for two reasons. Firstly, they mark the beginning of a way of life which differs fundamentally from the previous one. Secondly, their effects are noticeable to this day. In order to clarify this, I shall deal with the questions which have also been asked at earlier phases: Which social changes were at stake? What form did the human imagination take in this period? And what type of action resulted from the interplay of these two dimensions?

a. States and cities

We cannot say that social circumstances changed suddenly. The philosophical traditions referred to here all originated in areas that had a developed agricultural society. They were governed by a center of power enforcing elementary rules of law and levying taxes. In other words: it was a phase in which the process of state-formation was already quite advanced, while from time to time conflicts arose or even wars were fought. Opinions differ about the significance of this struggle for the axial age. Initially many authors thought that these far-reaching conflicts automatically called for the striving for a new social or spiritual order. This would apply, for example, to the era of the Warring States, a chaotic episode which stretched over two centuries in China and which inspired Confucius to develop his doctrine.¹⁷⁸ Subsequent authors point not so much to the chaotic aspect as to the orderly aspect of state formation as the main cause. They believe that the new ideas mainly are related to the creation of a real state bureaucracy and its

influence on everyday life.¹⁷⁹ These two views do not exclude each other because processes like warfare and the development of a state apparatus can interact. In any case it is clear that in axial time one could not limit oneself to arranging sufficient food or sex. The organization of external and internal security was a considerable challenge.

Axial time differed substantially in two respects from the type of society that developed previously. First of all, writing had come into being. Its oldest form was the clay tablets used in the area of Euphrate and Tigris to record numbers of sheep, quantities of grain and other countable things. The famous cuneiform writing was to develop around 3000 B.C. in Sumer. Its function was at first of an administrative nature. Approximately ninety percent of all the clay tablets in the oldest known archive concern the accounting of paid goods, rations distributed to workers and agricultural products. This shows that the notebook had an institutional setting and that its use was a matter for civil servants. No wonder it was never developed or even adopted by hunters and gatherers.¹⁸⁰ Organized states, on the other hand, have always used scripture to gain an overview of everything that happens on their territory and to exercise control over it. As a result, the influence of those in charge grew: civil servants, writers, teachers, and other groups we would today call intellectuals. When axial civilization expanded, this class gained more weight, as evidenced by the public role of Jewish prophets, Greek philosophers, Chinese mandarins, Hindu Brahmins, Buddhist sanga, and Islamic ulema. The further spread of scripture made their position even stronger. There was more room for debate, which could undermine the authority of those in power. Moreover, the availability of an external memory created completely new possibilities, both mentally and cognitively, something to which we will return in a moment.¹⁸¹

A second characteristic of axial society is that trade networks expanded. This is the case, for example, in ancient Mesopotamia, which had a developed market economy. Later, the same dynamics would appear in the eastern Mediterranean. Around 800 B.C. the Phoenicians in particular concentrated on trade and colonization. The dynamics generated by this led to more social mobility but also put pressure on the old family patterns. It encouraged a certain commercialization of agriculture, which led to the development of large-scale businesses and made small farmers dependent on large farmers who lent them money. Moments later, the Phoenicians faced competition from the Greeks who developed a full market economy around 500 B.C.¹⁸² According to David Graeber, it is a mistake to think – as many liberals do – that the state and the market hampered each other in this development. Barter trade only flourished in history *after* a uniform system of measures,

weights and monetary units had been created. It was always emperors and other rulers who developed and maintained such a system. That is why stateless societies generally have no markets. The same can be said about the invention of money. Regardless of when and how money was invented, over the last four millennia it has always been a creation of the state.¹⁸³

For our understanding of axial society, issues such as money, trade and market dynamics prove to be of great importance. Graeber writes that coins were invented between 600 and 500 years B.C. in three different places in the world: the great plain of northern China, around the Ganges in northeastern India and in the Aegean Sea region. These are exactly the areas where sages like Confucius, Buddha and Pythagoras became active. For example, in classical Greece coins were widely used to pay wages, to buy or sell goods, to pay fines or taxes etcetera¹⁸⁴. Some even claim that monetization was an integral part of the new way of life that developed in the Greek polis.¹⁸⁵ A similar development was seen in India in the third and second centuries before the beginning of our era. There the process of monetization, initially related to warfare, was taken over by a government eager to build granaries, workshops, warehouses and prisons everywhere. Many of these institutions employed civil servants who received salaries. It is therefore not strange that Buddhist writings show a world teeming with cities, trade networks and great riches. It emphasizes that the Ganges Valley went through a rapid transition during this period, characterized by increasing trade, urbanization and a growing population.¹⁸⁶ Finally, China experienced the emergence of armies paid with money. More generally, there was a centrally organized state, led by well-educated civil servants, which continuously controlled the economic course of the empire. Those who governed the country were well aware that they could make money from almost anything by simply demanding that taxes be paid with it. In Greece as well as in China and India, the ongoing warfare ensured that money played a major role in everyday life. The same would apply to the Roman Empire a little later.¹⁸⁷

This shows that warfare, state formation and monetization strengthened each other. Ultimately, this social dynamic led to a different imagination. Given the present reputation of Islam, it is worth recalling that the expansion of this faith showed similar dynamics. Graeber writes that Islamic states did in many ways the same as the great empires had done in the axial age. They formed professional armies, waged wars of conquest, captured slaves, used their loot to melt coins, distributed these coins to soldiers and government officials, and then demanded the money back in the form of taxes. It is therefore not strange that merchants were attracted to this belief. From the outset,

Islam had a positive attitude towards market dynamics and among Muslims the merchant became a valued prototype. Don't forget that Muhammad himself was a merchant. But the connection goes deeper than the biographical. Thanks to the spread of Islam, the market could grow into a global phenomenon having its own internal rules.¹⁸⁸

Although warfare, monetization and the spread of writing are different processes, they have something in common. They disrupt the seclusion of local or regional existence and increase mobility. Thus, during the period of the Warring States, Chinese governments tightened their grip on ordinary households. More and more often people had to do forced labor and to pay taxes. Continuing wars, the loss of status in aristocratic circles and the emergence of new groups increased social mobility. People had to move constantly, they sought refuge in regions other than where they were born, and even farmers had to move from time to time in order to work. There was a general turbulence that caused many people to lose the bond with their ancestors, while soldiers, teachers and other professions hired themselves out to anyone who offered work.¹⁸⁹ Other areas also experienced a growing mobility in the first millennium B.C. such as northern India, the Fertile Crescent area, and the eastern Mediterranean. As a result the social and mental horizons of many people expanded, as they were increasingly confronted with strange people, stories and customs. This undermined the authority of religious traditions that were limited to just one region or social group. Instead, more universal ideas developed. Thinking disengaged itself from the spatial, social or cultural frameworks to which they had been confined for a long time.¹⁹⁰ In doing so, the invention and massive use of writing was an enormous stimulus. The spoken word often remains tied to a local community and the people one knows personally. The written word, however, goes beyond the limitations of time, place and social group: it can also do its work at a later time, in another area or within another community.¹⁹¹ This brings us to the question of how the human imagination developed in response to the circumstances outlined.

b. Ideals and principles

One of the main changes of the axial era is that the old stories about gods no longer speak for themselves. A more intellectual way of thinking is developing which in some cases even had the character of a proto-scientific approach.¹⁹² One looks in a new way at natural or cosmological processes, seeking rational explanations and putting aside an appeal to ghosts, gods or demons as superstition. That also touches on thinking about social and moral order. A striking example of this can

be found in the Egyptian Middle Kingdom where Maat gets a prominent role. Although this principle is still depicted as a goddess, it is no longer about the kind of faith one finds in a peasant society. Rather, Maat is a spiritual motive referring to order, truth or justice, qualities that can relate both to the cosmos as a whole and to the way a monarch has to rule or individuals have to behave. A similar notion can be found in the Vedic tradition of India where the principle of Rta is advocated. It refers to a form of virtuous action in which one maintains both the cultural order and the connection of the cosmos.¹⁹³ In the axial period we cannot make a very sharp distinction between religious and moral considerations, but it is striking that the more traditional stories about gods and goddesses are left to search for more universal views. This is also the case with the Greek philosophers who look for logical rather than mythological explanations. Think of Anaximander. Although he does not deny the existence of gods, he prefers to consider cosmological phenomena as an effect of natural causes. With a philosopher like Parmenides we even find an impetus for real theorizing: he not only reflects on certain matters but also on the way one should reflect. In this way he develops a new type of reflection, which a little later comes to fruition in the work of Plato and Aristotle.¹⁹⁴

The case of the Greek philosophers shows that they are leaving the ancient world of gods, searching for transcendent principles that they see as valid for all human beings. Incidentally, the distance between those ethical or philosophical principles on the one hand and human life on this earth on the other is by no means diminished. The constant tension between the transcendental and the immanent sphere appears in every axial civilization.¹⁹⁵ A good example of this is the so-called Mandate of Heaven, an idea that Chinese thinkers already developed in the first millennium before our era and that later became very important. The idea was that you had to obey kings and other authorities as long as they showed certain moral qualities. So there was a distinction between universally valid principles and the actual behavior of those in power. Confucius and Mencius believed that every human being should embrace such principles.¹⁹⁶ Yet another example is presented in the Old Testament. It tells how the Jews replaced their initial belief in several gods with the acceptance of one God. Moreover, it tells how the transcendent character of that one God slowly but surely grew. Ultimately, JHWH would tower far above his people, a majesty that one was not even allowed to depict.¹⁹⁷ It was a journey that Muslims would repeat many centuries later and that we also find in other religious traditions. Yet the pursuit of transcendence did not always take shape in a 'vertical' way. Certain traditions adhere to transcendent values without relating them to a heavenly or supernatural atmosphere. The pursuit of

universal philosophical principles can also take place in a ‘horizontal’ way, as Taoists and Buddhists always have stressed.¹⁹⁸

By way of summary one could say that in axial times a more philosophical doctrine replaced religious beliefs. This had both cognitive and normative consequences. From a cognitive point of view it is important that thinking became more abstract. People not only thought and spoke about new subjects but also started to think about thinking and speaking itself. Partly for this reason new disciplines such as mathematics, linguistics and rhetoric could develop. They also developed numerous systems that explain how the world came into being and how people fit together.¹⁹⁹ In doing so they not only opposed traditional ideas, but also ideas that were accepted ‘by everyone’ without critical examination. Plato was happy to make a sharp distinction between mythos and logos, just as he made a distinction between real knowledge and opinions. One may wonder why this striving for critical thinking, for pure argumentation and for testable knowledge emerged. If it is not based on a mutation of the human DNA, one could speculate that it has something to do with the circulation of money. For the ancient Greeks it is plausible that the money economy of that time was a powerful stimulus for the capacity for abstract thinking.²⁰⁰ Furthermore, we know that the development of classical rhetoric had practical reasons: the prominent role of the spoken word in law and politics stimulated a more formal treatment of eloquence. And finally it is known that geometry benefited from the many insights gained in the construction of temples and other structures.

But probably the cognitive renewal from the axial time is mainly related to the effects that writing had on the imagination. From the moment that information was recorded in an external memory, the human mind started to work in a different way. As mentioned before, the scope of knowledge and communication could thus be expanded. By using clay tablets, papyri and other information carriers, those in power were able to collect reliable information about the farthest corners of their empire – just as they were able to ensure that laws, rules and other regulations were known to those farthest corners. In addition to a larger range in a spatial sense, the temporal range also increased. It was now clear which agreements were made in the past, just as one could record certain decisions and actions for future generations. The most important thing was that you could learn about someone’s ideas or statements without having to deal directly with that person. All this created a totally new space of speaking, thinking and arguing in which the mind could move more freely than before, while at the same time showing a higher degree of precision. That was a crucial condition for the development of independent thinking and conversations in which truth became more

important than power. Without writing the pursuit of universal insights is much more difficult. Meanwhile one had to pass on both the texts themselves and the ability to deal with them to the next generation.²⁰¹ That is why the writings of certain teachers acquired a quasi-sacred status and a lot of work was done on teaching new pupils.²⁰² This element is also found in almost all axial civilizations.

Except cognitively, ideas from this period deviate normatively from the past. For example, more attention is paid to such things as the good and just. We saw earlier that Hammurapi, in the middle of the third millennium B.C., legitimized his famous laws by saying that he had done this by order of the gods. Later such a justification would no longer be necessary because transcendent values and principles were invoked. Confucius considered someone's moral quality more important than his status or descent. According to him every human being had to practice virtuous action. In doing so he referred to heaven as a spiritual sphere, but it was clearly about human behavior. His commitment was not so much cosmological as social, something we also find in Mencius and Xunzi. The latter defended the importance of human responsibility in an almost Kantian way. Whoever is faced with the choice to obey a prince or to act in a righteous manner must choose the latter, Xunzi wrote.²⁰³ All this was equally valid for the classical Greeks. Although Plato passionately defended the existence of certain ideals such as the good, the true and the beautiful, he was primarily concerned with the question of what they meant for man and society. This moral engagement equally characterized the Buddhists. They left behind any reference to the gods and believed that we must live up to our ethical standards in earthly life. Bellah describes this as a far-reaching ethization of the world and speaks of a turning point in human history.²⁰⁴

Of course, it is risky to say that certain values recur in all these civilizations. Nevertheless, some authors believe they can be shown. According to Karen Armstrong, Buddhism and Confucianism, Christianity and Judaism or Greek philosophers and Islam did have something in common. In a negative sense, they wanted to mitigate or even destroy our human tendency towards selfishness, lust for power, lovelessness and violence. In a positive sense they wanted to promote values such as mercy, compassion, compassion and charity. In the Old Testament, the prophet Amos was one of the first to stress the importance of mercy and social justice. According to Rabbi Akiwa, charity would be the main commandment of the whole Torah. As is well known, Jesus expressed himself in the same words, making charity a central value of the Christian tradition.²⁰⁵ Confucius was the first to articulate the Golden Rule and pleaded for a life of service and devotion to others. Buddha, with his emphasis on compassion, used a different

word, but advocated a similar vision. According to Hinduism, Vishnoe gave up all temptations of his divine status to assist humanity in its suffering. For Muslims, Allah is first and foremost the Merciful One. And in classical Greece tragedy writers wanted to teach the public more empathy with a tormented hero. Thus, many wise men from axial times came to the same conclusion along different paths: people should curb their selfishness by practicing compassion.²⁰⁶

This view of Armstrong has met some criticism. She would all too easily step over major philosophical differences between the traditions in question. But for a global sketch as this one, her vision remains relevant.²⁰⁷ Moreover, she fits well with a last characteristic of axial time, which is less controversial. Namely, the fact that spiritual leaders, philosophers, teachers and other intellectuals regularly took sides with a poor population that suffered from hard rulers. Thus, already in the year 1130 before our era, an Egyptian text was published which emphasized the importance of equal treatment. The flooding of the Nile could not only favor the rich and the king had to act as protector of the poor.²⁰⁸ In Persia, Zarathustra marked the beginning of a long tradition that justified the rebellion of the people against an evil ruler and his accomplices.²⁰⁹ In China, Mencius strongly criticized the upper class while defending the interests of the people. In a conflict between political power and moral standards, we must choose the second and reject the first. This makes Mencius a typical representative of the axial age which, in all its variants, breathed a very different spirit than the previous era.²¹⁰

c. Rhetorical repertoire.

What about the connection between moral imagination on the one hand and the more tangible circumstances of the axial age on the other? Because there are major differences in the latter, it is inevitable that public action will take shape in several ways. The literature mentions at least four different pathways along which the tension between moral ideals and practical action is resolved. I dwell briefly on the paths followed in China, India, Israel and Greece.

Characteristic of the Chinese way is that while recognizing a transcendent sphere of moral values or principles, one tries to invest them as much as possible in social and political action. This is in line with the advice of Confucius and related masters but also with the attention for natural processes advocated by Taoism.²¹¹ That is why the Mandate of Heaven does not so much refer to speculative or cosmological questions as to the correct or incorrect actions of those in power. It is rare in Chinese civilization for the moral and social order to

be squared. Rather, the two spheres are strongly intertwined, with the resolution of tensions being the primary task of well-educated civil servants and administrators. Consequently, there is little room for groups, individuals or movements that detach themselves from social reality and pursue an independent spiritual or moral course. Everything is aimed at the development of a central power that wants to promote both administrative continuity and social discipline by means of legal rules.²¹²

The history of the Indian continent shows the opposite of this method. Here, the tension between a transcendental sphere of spiritual principles and earthly reality is resolved by radically opting for those principles. From time to time attempts were made to form a central power, but this never became a lasting success. There were too many groups that resisted and stuck to their own traditions or hierarchies. Especially the priestly caste exercised great influence and spiritual practices played a decisive role. While the pursuit of a virtuous life remained all-important, it had to take shape in an individual way. According to Bellah, the old ritual and religious tradition continued which only took a truly axial turn with the development of Buddhism. In the sixth century B.C. northern India became the scene of processes such as increasing trade and urbanization, but it evoked an ascetic reaction in which people sought spiritual salvation and rejected all earthly desires.²¹³ This led to the creation of a separate spiritual sphere that was far removed from power or politics. Finding personal enlightenment remained possible, but it was something that required study, meditation and a high degree of detachment.²¹⁴

A third trajectory can be found in the history of ancient Israel where the tension between the transcendent and the immanent sphere was not so much dissolved as exacerbated. This happened, among other things, through the development of a monotheism in which people restricted themselves to a single God, provided with completely transcendent greatness. But it also happened through the activities of prophets who spoke in the name of God, often contradicting worldly rulers. Consequently, there were regular clashes between certain ethical or religious principles borrowed from a transcendent sphere and the social or political realities with which kings had to struggle. Moreover, there was a conflict between universalism and particularism. While Yahweh was emphatically the God of the Jewish people, with whom he had made a special covenant, his followers recognized the universal validity of the moral rules and principles imposed by him. This applied, among other things, to the commandment of charity and its social implications. That conflict was only partially resolved when Christianity arose and a wider community began to embrace charity. Christian

tradition, too, has always struggled with the tension between a transcendental sphere of universal values and an immanent sphere in which private interests prevail.²¹⁵ In that sense Christian churches can be seen as the heirs to a struggle that already began in the Old Testament and continues until today.

Finally, we find a fourth answer to this challenge in Greek antiquity. This was due to the lack of a central state power in classical Greece. Politics was mainly a matter for the commercial cities which cherished their independence and had the necessary space for public debate. Moreover, religious considerations mattered far less. When it came to expressing and shaping moral principles, philosophers were the most important. They developed a rational view in which idealistic values were neither detached from social realities (as in India) nor used against those in power (as in Israel), but were instead used to improve political and public life. A new type of state arose in classical antiquity in which citizens played a central role. They had to develop their spiritual, social and physical qualities because it was good for them, but also because their republic needed it.²¹⁶ Teachers, orators and philosophers made an active contribution to public life. These intellectuals were able to do their work in freedom, although the condemnation of Socrates shows the limits of that freedom.²¹⁷ Roman civilization differed politically and socially from classical Greece, but the relationship between the transcendent and immanent sphere persisted. This can be seen, among other things, in the use of rhetoric, a method in which rational argument, propagation of moral values and social affections are integrated.

The reader will have noticed that I attribute a broad meaning to these actions – described as rhetorical repertoire in this paragraph. Although the circumstances of classical China, ancient India, ancient Judaism and the ancient Greeks differ, I believe that the language developed there is indeed related to rhetoric. In all these cases a form of speech evolved in which intellectual, moral and social elements are integrated. The difference lies above all in the scale of the conversation. In the Greeks and Romans as well as in Judaism, the speakers addressed a wide audience, while in China they spoke to an elite and in India the conversation was limited to individual pupils. Apart from the scale of the conversation, the same ingredients were at stake. They were referred to in Greek as *logos*, *ethos* and *pathos*. In fact, these three building blocks return throughout axial time. First of all one tried to develop a doctrine by means of reflection, argumentation and other logical means. For that reason great value was attached to copying, passing on and explaining basic texts. Secondly you had to adopt a virtuous attitude yourself. That could not be limited to quoting idealistic principles, you

had to live up to those ideals personally. In the third place it was important to bring about a change in your interlocutors and to that end you had to take into account the feelings and experiences of the audience. In this sense not only Greek philosophers and Roman orators used the rhetoric, but also the prophets of Ancient Israel, the teachers who passed on Confucianism or Taoism and even clergymen who developed Buddhism.²¹⁸ They all acted very differently compared to the priests or kings who used the religious repertoire in a previous age.

Thus axial time caused people to adopt a more critical attitude in a variety of situations.²¹⁹ They no longer resigned themselves to what religious traditions dictated or what those in power decreed. From this time on, several authors see a new kind of intellectual emerging that they describe as 'refusals'. They are people who withdraw from the world, who reject the normal course of events or take a step back in order to consider the whole. For example, they refuse – as Buddha did – to be responsible for running a household. Or they despise – as the prophets did – any form of power. Others – like Taoists – mock all those in authority. And again others – like Plato and Socrates – looked at the whole from an eccentric position.²²⁰ Time and again these individuals freed themselves from their familiar surroundings and started to stand at right angles to the established order. In this way they were able to criticize the corrupt leaders who wronged the people (Mencius), to condemn kings on moral grounds (prophets), to develop ideas about an ideal society (Plato) or to teach a different attitude to life (Buddha). Thus, the axial age spawned the tradition of critical thought and action that we cherish to this day.²²¹

Part 6: Perpetual principles

Now that we have outlined the last piece of our history, we return to the original question of this essay: Is there such a thing as human nature? In what way did it come into being and how does it work? It is clear that the idea of one human nature is particularly controversial in the moral field. Attention to ethnic diversity, cultural differences or philosophical identity is so often asked for today that many informed readers find such an idea strange to say the least. They may want to admit that there are certain similarities or constants in the material field. Many modern consumers aspire to a more natural way of life, which includes healthy food, more exercise and less pollution. The belief in a more or less natural way of life is also strong when it comes to reproduction. We only use medical techniques if the usual approach does not work properly. Despite all the debates about gender as a result of cultural codes, most people still seem to accept the idea that you can't just change the roles of men and women on this point. Finally, striving for sufficient security could also be a broad living theme. We have thrust the protection against all kinds of danger in the hands of the state, but we see that 'strong men' immediately pop up as soon as the public gets the impression that their safety is no longer guaranteed. In other words: the idea that people, in spite of their diverse backgrounds, have certain things in common seems to be widely accepted as long as it concerns the material dimension of our lives. This is certainly not the case for the spiritual dimension, which will be discussed now.

a. Ideals as heritage

It may be appropriate to start with a point of self-criticism. In the studies I have done over the past thirty years into all kinds of contemporary phenomena, I have always emphasized the distinction between a modern and a more traditional way of life. Matters which characterize the modern life include reliance on scientific insights and related forms of rationality, the promotion of equality by means of constitutional or democratic procedures and the pursuit of efficiency by which capitalist economy has expanded a worldwide.²²² These tendencies continued over the past two centuries and they have greatly influenced on our spiritual lives. What I may not have emphasized enough is that old and even archaic traditions continue to exist and have their influence too. That goes for the values that were established in classical civilizations and that still appeal to a broad public. It is no less true for forms of religious life that date back to the days when there was no writing. It even applies

to all kinds of magic or ritual that are still popular in modern society. See the kiosk at airports where you will find numerous books on healing crystals and other esoteric subjects.²²³ And it also applies to the basic layer of relational action, the meaning of which is indeed fully recognized nowadays. In other words: next to, under and sometimes in conflict with the modern way of life, there remains a broad and varied reservoir of older forms. These have to fulfil some function, because otherwise they would – due to the evolutionary logic we are following here – have long since disappeared from the face of the earth. The challenge, therefore, is to get a better understanding of those constituents of human nature which are covered by the later layers of modernity.

Several authors I consulted believe that this nature does really exist. Boyd for instance formulates a convincing criticism of the human and social scientists who adhere to postmodernism, always putting the local context of cultural phenomena first. As if there were no interaction between human nature and cultural development.²²⁴ Pouwel Slurink calls it downright foolish to believe that human nature would change within a few centuries.²²⁵ Robert Bellah states that classical sages such as Confucius or Mencius had a deep insight into human nature.²²⁶ Jonathan Haidt made a systematic comparison between the ancient wisdoms coming from China, India or the eastern Mediterranean and findings from current positive psychology.²²⁷ Shalom Schwartz' research into human values shows that some are found all over the world. In his opinion, this points to a shared evolution in which it is very unlikely that values at odds with human nature will stay alive.²²⁸ Finally, the renowned biologist Edward Wilson said that there is indeed a human nature, even though we do not yet know exactly how it works. He even advocated an 'existential conservatism' in which the preservation of human nature would be a sacred task.²²⁹ In all this it is appropriate to recall *The Abolition of Man*, an essay written by C.S. Lewis at the time of the Second World War. At that time he fiercely advocates old wisdoms which – whether they stem from classical antiquity, the Bible, Buddhism or Hinduism – always amount to upholding a number of objective values and truths. Lewis summarizes these under the term Tao and believes not only that they are the main guideline for human action but also that they do not change. We cannot invent a new value for the same reasons why we cannot create a new primary color or a new sun, he explained.²³⁰

An important question, however, is how to investigate human nature. Should we consult the neurologists or psychologists who map out the functioning of our brain? Or should we consult archaeologists and paleontologists who look at the way in which human behaviour has

developed in the past? Or should we delve into written sources in order to learn how old societies dealt with the problem? One of the most interesting books published in this field combines these three approaches. I refer to *Het oerboek van de mens. De evolutie en de Bijbel* that was written a few years ago by the primatologist Carel van Schaik and the historian Kai Michel. They systematically examine how biblical texts and the agricultural revolution relate to each other. This study is important for more than one reason, but I select two relevant points. To begin with, they start a conversation that was not held for a long time: the conversation between a theological and a biological approach to the story the bible tells us. The combination of both views, which often condemned each other in the past, deserves to be followed. Next, they present an interesting model of human nature in which they make an analytical distinction between three layers. The first layer comprises all the innate feelings, reactions and passions that have arisen over a period of hundreds of thousands of years and whose usefulness has been proven in the time of hunters and gatherers. The second layer contains all the cultural codes and patterns that are part of what is called civilization. It concerns such things as eating habits, manners which we automatically apply and which we therefore call our 'second nature'. The third layer encompasses all institutions, agreements and norms that regulate living together and to which sensible people try to obey.²³¹ This approach is related to the sedimentation model which I proposed in the foregoing, although my model has four layers while the authors of *Het oerboek* limit themselves to three.

That brings us to a new question. Assuming that human evolution did indeed result in a coherent set of skills and preferences, how do they make themselves known to us? It could be that they are partly recorded in our DNA and thus influence our behavior. In that case our nature would function automatically. That explanation is not very plausible, because thinking, practicing and acquiring self-knowledge would then be almost superfluous, whereas self-knowledge always has been the very essence of wisdom traditions. The opposite explanation would be that our reflexes or tendencies are largely shaped by social or cultural codes. Although those codes undeniably exist, this answer also falls short because there would be a lot of variation but little *common ground*. I myself have opted for a third point of view, which implies that the continuation of our evolutionary past takes place by the values we carry with us. In order to explain that I will first draw up a definition of the concept of value and describe what its implications:

Values are qualities of which I sense that we must pursue them in all situations.

I will return to a few elements of this definition later. For example, the fact that we never deal with one value and always with multiple values. For the time being I want to emphasize three elements: 1) there is an 'I' that senses something; 2) what I sense is an obligation to pursue certain qualities; 3) this obligation applies to all situations. These elements can be explained as follows.

To start with, there is always a subjective awareness which is not only about rational knowledge but also about personal involvement. That awareness has both a cognitive and an affective side. Anyone who argues in a completely rational way will never adhere to or even perceive a value. It is of course possible to give an objective description of values which people cherish. That is what social scientists do and even have to do. In science we suspend our own normative preferences as long as possible, we stick to the distinction between describing and prescribing. But looking from the outside at the values that people embrace is not the same as adhering to our own values. What is forbidden in science turns out to be inevitable in real life. Living our lives we cannot always suspend the passing of value judgements for a long time. Sooner or later we have to make a normative choice. Only then does it become clear which values we really adhere and which we reject. Without that involvement the subjectivity of the 'I' is an empty affair.

This is in line with the second element, namely the awareness that it concerns an obligation. Values or ideals do not so much refer to the world as it is but as it should be. There is always a certain distance between the sphere of 'Sein' and that of 'Sollen.' That distance is by no means neutral in the sense that the two spheres simply exist side by side. On the contrary: they show an striking asymmetry. On the one hand it seems as if values, ideals or other normative principles have little influence because they relate to something which does not exist or is not yet there. On the other hand that is their real power and they can only influence the world in that way. Hence the paradoxical status of the ideal. We imagine spiritual qualities that transcend the existing reality but nevertheless have a real effect on ourselves. Precisely this motivates us to change that reality in such a way that it better matches the imagined qualities. Without a form of daily transcendence this 'pursuit' is not possible.

The third element means that the mandatory nature of a value is never limited to a single place, time or group. From the moment we adhere to a certain value, we implicitly or explicitly assume that it is universally valid. Of course, we know very well at an intellectual level that not all people embrace the value in question, just as we also

understand that there are times or places where the binding nature of that value no longer applies. But that knowledge ignores the appeal that I, as an involved subject, feel in spite of everything. Would I follow my conscience, then I can only think that everyone should pursue my values always and everywhere. That is why the relativization of one's own values sooner or later will lead to contradictions. Because in that case I say explicitly that the pursuit of certain values is bound to a specific place, time or group, while implicitly I assume that everyone must pursue those values always and everywhere. Without universal validity we cannot pursue a value 'in all situations'.

b. Universal values

Maybe certain readers find this argumentation a bit too abstract. Therefor I will explain it to them using two authors who have thought carefully about the paradoxical effect of values. To begin with Plato, the first thinker in the West who acknowledged the special status of spiritual principles. His work, together with that of Aristotle, is a culmination of the axial development which took shape in classical philosophy. Plato moves in line with earlier thinkers who no longer wanted to see what was happening in the world as the result of divine actions. Instead they were after causes, i.e. invisible but nevertheless effective principles which explain why something happens.

But Plato goes a step further by stating that there are eternal principles that we cannot perceive directly and that nevertheless determine the way in which we humans should act. I am referring to his famous theory of ideas, a theory which used to be thought to have scientific pretensions but of which we now know that it mainly has a normative tenor. The latter appears, among other things, in the *Phaedo*, a dialogue which begins with the condemnation of Socrates and which deals in detail with the question of what really matters in life. We read in this dialogue that there are qualities such as the only-just, the only-beautiful and the only-good, even though we have never been able to see these things with our eyes. Yet these qualities form the deepest reality of our existence. It is not enough to know that things like the Beautiful or the Good actually exist, they also form a yardstick with which we judge the perceptible world. When in the visible world we call certain things beautiful or good, it is because those things share something with absolute values such as Beauty or Good. In this way Plato is the first in Western history to express the conviction that there is an order of eternal and unchanging values forming the grid along which we perceive the visible world.²³²

That does raise an intriguing issue. For how do we discover these values when they are actually invisible? Plato appears to provide both a negative and a positive answer to this question. The negative answer is that the person seeking real knowledge must turn away from physical things. That is why this dialogue takes place while Socrates prepares to drink his poison. He is about to leave this earthly life and shows a high degree of detachment. Real wisdom is not possible if we remain attached to our earthly existence. As long as mind and body are connected we cannot acquire pure knowledge²³³ Thus Platonic thinking shows a certain affinity with religious traditions in Asia which also emphasize the need for detachment. More interesting, however, is the positive answer given in the *Phaedo*. There it is argued that true knowledge rests on a form of remembrance. Not only is our soul immortal, but it has already gained certain insights in a previous life. Above all the soul must become aware of something it already knows. This is what Socrates' conversation with his students is aiming at. Even before we could see that there is a similarity between two things, we already knew the principle of Equality. The text says, among other things, this: We acquired our knowledge of the Equality before our birth, and that applies not only to the Equality, but also to the Beauty, the Good, the Righteousness, the Pious, etcetera. The function of human senses is not so much to perceive a visible reality as to rediscover the knowledge of eternal principles which we carry with us.²³⁴

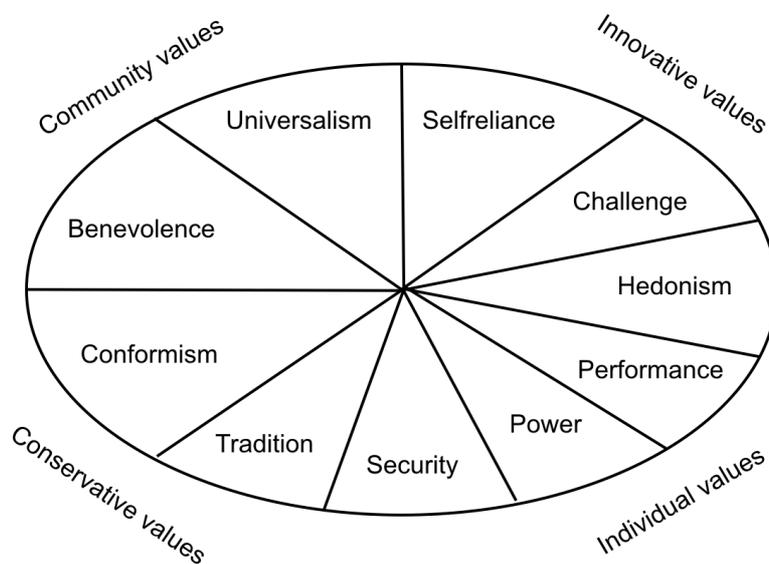
As we know, Aristotle will take a different path with regard to this last point than his teacher. For him, observing the world is indeed a source of true knowledge. But also Aristotle will state the existence of spiritual qualities which have normative power and which we must live up to with our actions. From that moment on the debate about the status of values, ideals and other spiritual principles in the West has been passionate. Many schools emerged, some of them defending the transcendent nature of values while others mainly referred to the earthly world where these values have to be realized. Thus the tension between a spiritual and a material sphere has remained an important subject until now and in this sense Western philosophy can indeed be seen as a footnote to the problems expressed by Plato. However, it would be a mistake to think that the belief in eternal and universal principles is a specific Western tradition. It occurs in many societies, as appears from the work of Shalom Schwartz. This sociologist carried out empirical research into the question of which values people adhere to today and which patterns occur in them. The rather surprising result is that there are nineteen values that people from different cultural backgrounds consider important. In a simplified version of his theory, Schwartz uses a list of ten values. Because we are dealing here with the question what

(the spiritual aspect of) human nature entails, I would like to mention them briefly.

The list of human values drawn up by Schwartz boils down to the following. 1) Self-reliance understood as the ability to think and act in freedom; 2) Challenge in the form of striving for new things or endeavors; 3) Hedonism or satisfying physical needs and seeking sensory pleasure; 4) Performance in the sense of personal success and being recognized; 5) Exercising power by having a high status and being able to influence others; 6) Security which includes both individual security and social stability; 7) Conformism or taking into account the norms and expectations of others; 8) Tradition or respect for cultural customs and ideas; 9) Benevolence as the tendency to take care of our closest fellow human beings; 10) Universalism in the sense of pursuing the well-being of all people as well as nature.²³⁵ It is clear that the formation, testing and application of such a list to diverse societies is no sinecure. Of course it gives rise to all kinds of debates or objections, some of which mainly concern the methodology used. This is less relevant here. In my opinion Schwartz's research is important for a number of reasons. First of all, we see that these values are not only about high moral goals but also about things that play a role in normal life. We realize that benevolence is important, but that can just as well be the case for hedonism or for power. Secondly, some values show a certain kinship while others are mutually exclusive. For example, the difference between tradition and conformism is not very big, but the difference between tradition and independence or challenge is. To illustrate this Schwartz uses the diagram below in which the most important values occupy such a position that we immediately see which ones can be combined and where possible tensions arise (see figure 2).

Moreover, his theory states that one can – thirdly – rank these values in several ways. There are cultures that appreciate a value as performance very much while other cultures rather put certainty first. This applies not only on a collective level but also on an individual level. Some persons are strongly occupied with the acquisition of power, while others primarily want to help their nearest and dearest. Given this variation Schwartz is sceptic about the idea that people with the same national culture have a number of values in common. It does not prevent a certain hierarchy of values from being identified in each case and influencing the functioning of organizations or institutions. In the meantime we can – fourthly – ask the question which values are often mentioned as being of great importance and which values seem to be less popular.²³⁶ Here, too, there is a surprise. The list is not led by ambitions such as performance or hedonism, as supporters of the *homo economicus* might assume. The most frequently mentioned values are

Figure 2.
Ten basic values according to Schwartz 2012.



universalism and benevolence, while independence and security take third and fourth place respectively. Values such as power and challenge, on the other hand, come out as the least important.²³⁷ Apart from the fact that Schwartz demonstrates the worldwide appreciation of social and moral qualities, he describes – fifthly – which mechanisms are probably responsible for this. He points out that values such as universalism and benevolence contribute to the maintenance of society and as such are deeply rooted in human nature. More selfish values may as well play a role but only when they leave social cohesion intact. In this respect one can see the widely accepted hierarchy of values as the outcome of evolutionary adaptation.²³⁸

As a further elaboration of his theory Schwartz mentions – sixthly – two axes along which one can arrange these values. On one axis selfish and social values oppose each other, in which power respectively performance represent the first kind and benevolence respectively universalism the second kind. On the other axis conservative and innovative values oppose each other, in which tradition respectively conformism represent the first kind and independence respectively challenge the second kind.²³⁹ This division corresponds in broad lines with the dilemmas appearing in our natural and cultural evolution. Because of our natural evolution we, as group animals, have to find time and again a balance between self-interest and group interest. Because of our cultural evolution we are always faced with the question whether traditional experiences and values deserves priority or the pursuit of

challenge and change. In that sense Schwartz' work provides an interesting illustration of our suspicion that evolution leads to one human nature without it being a homogeneous or unchanging 'essence'. The conclusion is that our values, however much they may be the sediment of a long history, have their own dynamics in which we are not passive spectators but rather agents motivated by our own values.

c. On good and evil

So far I have argued that our spiritual history is mainly continued in the values we carry with us. We could summarize this by saying that these values do for our cultural evolution what DNA does for natural evolution. They record preferences, aspirations or normative dispositions which contributed to the survival of mankind in former days and thus form a valuable compass when we have to act in the present. However, I want to elaborate that general idea a bit more taking a specific case: our human morality. That also gives us the opportunity to examine more closely the process of sedimentation. So in this paragraph I sketch a 'genealogy of morality' which at one point touches on the famous analysis of Nietzsche but which basically takes an different direction.

This history of course starts at the beginning that is what we have in common with other group animals. A lot has already been said about forms of social behavior that occur among these animals. Frans de Waal in particular has made it clear that this also applies to moral behavior. In the development of our species we cannot point to a specific moment when morality clearly appears. Let us acknowledge that related animals have all kinds of behaviors that form building blocks for the moral behavior of adults. Aureli and De Waal especially mention the following four: 1) showing pity; 2) meeting social norms; 3) respecting reciprocity and 4) working together. Conflict resolution through reconciliation can be added to this.²⁴⁰ This applies a fortiori to mammals capable of empathy, a behavior that probably developed out of parental care for offspring.²⁴¹ In any case, De Waal holds the conviction that man has a moral capacity by nature, just as he has the capacity to learn a language. In both cases the cultural environment or education play an important role, but the possibilities for moral action or speaking already exist.²⁴² We assume that the spiritual life of animals does not reach further than feeling each other's intentions. An intriguing question then is what happened in our evolution so that we humans made the transition from the first building blocks to a fully developed morality. Michael Tomasello has devoted a book to this question, theorizing that the transition had two stages which both took a long period of time.²⁴³

According to him the so-called ‘dyadic morality’ came first. This developed because early people were forced to choose a partner and enter into cooperation when looking for food. In this way they distinguished themselves from other great apes where mutual help is often limited to individuals with whom they have already a narrow relation. Early humans, on the other hand, could also cooperate with other people, which greatly increased the effectiveness of the search for food. This way of life eventually created a new form of sympathy. People began to see themselves as part of a minimal unity, a partnership that was supported not only by material considerations but also by certain expectations about the right way to act, by more trust and by forms of mutual sympathy that other primates probably lacked. All this eventually led to a renewal in the moral field: the realization that you have obligations towards your partner in the sense that in certain situations you have *to do something yourself*, even when the other does not emphatically ask for it.²⁴⁴ Incidentally, without empathy that cannot occur. You have to imagine how your partner sees the situation and that is only possible by using imagination. Tomasello therefore suspects that the tendency towards human sympathy – with which Adam Smith opens his famous *Theory of Moral Sentiments* – has evolved in this phase of individual cooperation. It would explain why our human morality is in the first place a matter of personal feelings and not of rational considerations.²⁴⁵ We pay particular attention to someone’s intentions. What we morally appreciate is that another person tries to do something good, even if his action doesn’t succeed. Our condemnation applies especially to people lacking any good will.²⁴⁶ It underlines that observing and appreciating personal intentions is a typical characteristic of spiritual life in this phase.

The genesis of this dyadic morality covered a large part of the time that people roamed the earth as hunters and gatherers. But more than 100,000 years ago a second development started. As the population grew, competition between human groups increased, which had both internal and external effects. The main external effect was that more and more distinctions were made between one’s own group and other groups. If the situation was bad, rivalry could easily turn into hostility. It became important to see as soon as possible to which group another person belonged. One paid attention to easily perceptible characteristics such as language, skin or stature. In addition, the differences between groups were marked by the use of colors, the wearing of objects or the application of physical decorations. Consequently, not only a greater loyalty to one’s own group developed (see below) but also a deep suspicion towards everyone who came from outside. These reflexes still work, as is shown by the well-known fact that we make a spontaneous

distinction between us and them.²⁴⁷ Adults often suppress this tendency (knowing that it easily leads to discrimination) but the impulse itself remains. Young children spontaneously give in and are more likely to associate with peers who have the same skin color or speak the same dialect.²⁴⁸ The moral implications of this mechanism are broadly known as well as questionable. In times of tension, it turns out to be quite easy to portray strangers, outsiders and opponents as ‘inhuman beings’ to whom one has no obligation whatsoever.²⁴⁹ Morally speaking, the distinction between good and evil groups will be stressed.

The internal effects of increased rivalry at group level are completely different. In one’s own community more cooperation, reconciliation and altruism will emerge.²⁵⁰ This forms the basis of a new kind of morality which is less about individual relations than about society as such. Developing, respecting and imprinting social norms becomes very important. This produces a kind of kinship based more on cultural than on natural bonds.²⁵¹ There is even an egalitarian tendency to mitigate large differences in power or status, for example by gossiping and by stifling any despotic behavior.²⁵² However, the pressure for conformism increases. At decisive moments, all group members are expected to behave in the same way. This is noticeable when rituals are performed: it is almost impossible to refuse participation. The coercive power of the ritual is enormous. It can be felt not only at the moment the ritual is performed, but also for a long time afterwards. Rituals are therefore often used to mark transitions such as birth, marriage or death, the beginning or end of wars, the inauguration of an authority or the beginning of a new season.²⁵³ At those moments the unity of one’s own group is celebrated. That also happens when disasters, uncertainties and other forms of misery present themselves. People seek protection together and try to strengthen their identity in a tangible way. Inspired by animism they will also apply the opposition of good and evil to the sphere of natural forces, ancestors and other spiritual beings.

Yet these processes do not yet bring about a true morality. Tomasello makes a distinction between obedience to social norms and moral considerations. The latter requires that the sharing of intentions takes place not only on an individual level but also on a collective level. We must imagine an ‘us’ that encompasses more than a sum of group members. This is only possible when that community considers its norms, goals and aspirations as objective standards, values that exist separately from each person and that are equally recognized by all members of the group. Standards of good and evil must not be open to debate and have to be applied impartially. Above all one must act in a fair manner and observe elementary forms of justice. This new situation

means that also the content of norms and values will change. They are no longer attuned to people with whom you would like to work, but take on a more formal character. It concerns issues such as honesty, equality, justice or impartiality. Social norms thus undergo an objectification but at the same time a certain subjectification occurs in the sense that group members internalize these norms more strongly than before. A form of self-regulation arises which strengthens the awareness of individual responsibility towards the whole. Violation of social norms not only leads to disapproval by others, but also to a feeling of regret or a tendency to condemn oneself. Morally speaking one finds the distinction between good and evil in oneself.²⁵⁴ Only then the seed for the formation of conscience will fully develop.²⁵⁵

This phase is, as I explained in part 4, characterized by the rise of faith and the religious repertoire which is related to it. It is not strange that also the distinction between good and evil is influenced by this. Basically our moral awareness is older than the symbolic order which developed since the agricultural revolution.²⁵⁶ However, this order greatly influenced the shaping of that moral awareness. In that respect especially storytelling became relevant. One could say that the basic structure of stories – and even of language as such – has a moral meaning because stories are often about a hero who has to act. On the one hand he meets opponents while on the other hand he is helped by supporters. Without distinction between good and evil a story keeps floating in the air. On a more abstract level every mythology shows a struggle with the spiritual dilemmas of a society. The same goes for the gods who - as personification of the spirits that animism already saw at work in the world – in their own way support the struggle between good and evil.²⁵⁷ In doing so, some traditions maintain a division of roles in the sense that a difference is made between hostile and friendly gods. Other traditions identify the good and the divine, so that evil becomes primarily a matter of human beings. But in all cultures gods play an important role in maintaining moral standards. Their secret is that they are well aware of our intentions, thanks to their omniscience. Anyone who secretly violates a moral rule will be punished by them. In this way the gods serve as moral arbitrators, a function they cannot perform without being strict.²⁵⁸ By doing so religious faith can sharpen the distinction between good and evil: it is God himself speaks to us, just using the voice of our conscience. This doesn't mean however that moral awareness is really the product of religious beliefs. In fact it is much older than that.

Thus we arrive at a final phase which continues to the present day. In axial age similar thoughts about good and evil have been expressed in many places. One recognizes the validity of a

transcendental sphere which contains idealistic models, universal values or moral principles.²⁵⁹ Sometimes it concerns the radical elaboration of old religious ideas (Judaism), sometimes its radical reform (Buddhism) and sometimes even a break with religious history (Greece). But in all cases we see that there is a clear tension between earthly life and that spiritual sphere. The principles thus articulated are no longer limited to a specific tribe, social group or cultural region. In principle, they apply everywhere, anytime and to everyone.²⁶⁰ People must shape their lives in a more ethical way. There are many wise men or masters who can help them with this. At the same time, this spiritual order enables a different attitude towards those in power. In one way or the other the powerful too have to take moral principles seriously. Justice becomes an important touchstone for kingship.²⁶¹ This even applies to the Chinese empire, where state power can look back on a long history. The ethics developed by Confucius and others were initially aimed at the promotion of individual virtues but could also become a source of moral critique in the political field. Heaven looks with the eyes of the people, says Mencius.²⁶² By the way, moral wisdom also exists outside axial civilizations. The thinking of the ancient Indians in America²⁶³ and the tradition of Ubuntu in Africa²⁶⁴ unmistakably show that people all over the world think about good and evil. Specific to the axial era is that it came to a certain rationalization, in which dealing with moral issues also became a matter of writing, reading, speaking, arguing and public debate.²⁶⁵

Part 7: About moral dynamics

Summarizing my story with a few elements I note the following: 1) in the oldest phase of our moral development it was mainly about the appreciation of personal motives and intentions; 2) in the next phase loyalty to collective norms came to the fore; 3) after that came the strong stories about good and evil which were often part of a religious regime; 4) finally general principles developed which one could explain and live up to in a more rational way. An important assumption is that all this didn't imply a process of innovation in the sense that new preferences or skills replaced earlier ones. Rather our old moral reflexes remained intact and new preferences or skills were added. I shall return to the often complicated situations which result from that. But first I will show that the factors just mentioned do indeed play a role in the way we deal with moral issues today. I do this by means of a sociological study of moral behavior in contemporary society carried out by Noami Ellemers.

a. Virtuous groups

Although her research was not intended as an indictment against the idea of the *homo economicus*, it convincingly demonstrates the inaccuracy of this idea. We humans are not so much looking after our own interests and neither are we living in a rational way. What does matter to people is whether others see them as moral beings. That is even more important than the question whether others attribute expertise to them or think they are smart. Longing for and receiving moral appreciation is a behavioral reflex: it determines the way in which people deal with each other in everyday life. The fact that we are not always able to live up to our moral commitments is partly due to the fact that many companies and professional organizations do not pay enough attention to this. They are mainly focused on issues such as efficiency or profit. As a result, many employees are exposed to the temptation to abandon their moral convictions and give priority to their career or financial success. And yet, this is contrary to what they are deeply striving for. They very much want to be part of a group that is morally sound. Ellemers' conclusion is that moral behavior is not a luxury that people only gain after they have reached a certain status or have become rich. The motivation to be morally sound is as honest as it is basic. It is more important for their self-image than skills of a cognitive or social nature. People not only believe that moral behavior reveals their true nature, but also that it says a lot about their future actions.²⁶⁶ This fits in

well with the first element mentioned above: the moral appreciation of personal motives and intentions is still very important to us. In that respect pre-historic times are not far away.

It also turns out that this appreciation is never separate from the group to which we belong.²⁶⁷ This also applies to other aspects of our self-image. How we see ourselves is inevitably related to the social group from which we originate or the community we have joined. This is particularly true for moral issues. We allow ourselves to be influenced, willingly or unintentionally, by normative judgements and behaviors that dominate our environment. The moral or immoral behavior of leaders also plays an important role. That is why we like to earn the appreciation of everyone who belongs to our group. This sometimes leads to unexpected results. For example, a study into the well-being of academics showed that this was determined not so much by their scientific achievements as by the degree to which they were respected socially by other group members. But that is not all. Questions are also whether the group itself is good, how other groups see it and what, more generally, is its moral status. It turns out that we identify to a large extent with that status, even when we have little influence on it. For example, a moral error or misbehavior of certain group members can lead to feelings of guilt or shame on the part of the other members, even though they themselves did nothing wrong. It emphasizes that moral dynamics do indeed have a collective character. This also applies to groups welcoming newcomers. In particular, they wonder whether or not new people endorse the norms and values of their own group – a phenomenon whose significance is often underestimated.²⁶⁸ These findings are entirely in line with the second element mentioned above: moral dynamics are mainly related to the collective norms.

A third outcome of the research is that we humans regard our moral beliefs as a sacred matter. Precisely because we are very attached to the values of our group and because the appreciation of others is so important to us, we are reluctant to admit that we fall short in this field. Admitting that something is lacking in our moral values themselves turns out to be even more difficult. Ellemers discusses various pitfalls that arise. Take, for example, denial. Making moral mistakes is unavoidable to a certain extent, but the higher the view we have of ourselves, the sooner we cover up our mistakes. Precisely those who see themselves as honest and trustworthy turn out to be less honest and trustworthy when describing their behavior. Pointing out someone's moral transgressions easily evokes a defensive reaction. That happens especially when that pointing has the character of a final judgement. People are only prepared to acknowledge mistakes if they are somehow given the opportunity to undo the damage and improve their lives.²⁶⁹

Apart from that we see that people who actually have high moral standards often pose a threat to others. They remind their fellow human beings of the fact that they make less high demands on themselves or that they live up to those demands to a lesser degree.²⁷⁰ A final pitfall, of course, is that people consider the values of their own group to be superior.²⁷¹ They pretend to respect the morality of dissidents, but in reality they assume that their own principles are much better.²⁷² That reminds us of the sanctification of norms and values that we find in religious regimes. Not only is a strong story told about good and evil, but the matter is also related to the divine. In this way a form of sacralization can occur which easily gets totalitarian traits.²⁷³

Finally, the fourth element mentioned above also emerges in Ellemers' study. How can we deal with moral questions in a more or less rational way? And which general principles apply? The fact that moral dynamics knows certain paradoxes and dilemmas does not mean that one should avoid normativity as much as possible. Engagement with moral values or principles is inevitable if we want to improve human behavior. The starting point must be that there is always a certain tension between ideals and reality, but you can use that tension in two ways. On that point Ellemers makes a distinction between downward and upward comparisons. With a downward equation you start from the ideal to point out to others that they fall short with their real actions. With an upward equation you choose the opposite way by starting from what someone does and then saying that there is room for improvement. The research shows that downward comparisons often have a threatening effect. This also applies to attempts to impose certain moral obligations in the name of an ideal. This approach draws attention to everything that people do *not* want, are *not* allowed or are *not* able to do. It has a depressing effect precisely when they are of good will or take their values seriously. An upward comparison usually turns out to be more productive. It stimulates people to commit themselves to an ideal and makes it clear that they can act themselves.²⁷⁴ The same goes for conflicts between groups that adhere to different values. It makes little sense to hold a competition as to which values are decisive. And there is no point at all in wanting to impose these kinds of values on others. Above all, it arouses resistance or reluctant reactions. It is better to acknowledge that the realisation of moral ideals is quite difficult for any person or group and to have some compassion for those who, in spite of everything, are committed to those ideals.²⁷⁵

The foregoing underlines that the complex dynamics which arose in earlier phases of human history are still at work. Human morality has many layers which certainly do not form a harmonious whole. We can do little else but search each time for a credible balance in which we do

justice to personal feelings and relations but also to collective norms, in which we can achieve a certain degree of rationality and at the same time acknowledge that moral commitment is also a matter of appealing stories and sacred principles.

b. Morals in plural

One may wonder whether this search for a credible balance is feasible. Have there been examples in history of moral, religious or philosophical traditions that do justice to the different layers of our human nature? Can we find perhaps cultures which demonstrate that balance? I cannot answer these questions, because that would require further investigation. Nevertheless, I would like to comment briefly on an example which I know from home and of which the precarious situation is close to my heart: Catholic religious life.

Looking at Catholicism in its heyday with a benevolent eye, you would see an impressive structure. It was first and foremost a powerful manifestation of monotheism inspired by stories about Jesus Christ. This qualification is somewhat controversial because believers not only relate to one God but also to a whole series of saints whose worship could be seen as a disguised form of polytheism. Nevertheless, Catholic theology has maintained the long line with Judaism on essential points and recognizes only one God. In this respect, It showed all characteristics of the religious faith that arose in agrarian societies, including the priests and hierarchical relationships associated with them. At the same time, it was more than that. It preached just as much an egalitarian morality whose sources are older than the agricultural revolution. Christianity articulated an elementary idea of human equality and solidarity in a small context that recalls the way hunters and gatherers lived. The same could be said about ritual domain where sacrifice played a crucial role. This domain underwent a symbolic adaptation, but kept remembering the kind of reciprocity that took shape in animism. In addition, Catholicism adopted large parts of Greek and Roman civilization with all its axial elements: the reading and explanation of texts, rational ways of thinking and the development of a theology that met high intellectual standards. Finally, there remained a connection with the life of ordinary believers, especially when it came to the great challenges of life and death, love and hate, selfishness and community spirit. As said: an impressive structure that ranged from tangible rituals to an intellectual culture in which a mature power apparatus managed to mediate between popular belief and elitist refinement.

But if you look less benevolently, you will see that from time to time the built-in tensions caused enormous problems. For example, in

the early modern era, there was a rift between those who advocated egalitarian organization and those who emphasized the importance of the church hierarchy. Reformation succeeded particularly in northwestern Europe – an area that we saw previously inhabited for a long time by hunters and fishermen rather than farmers. In any case, hierarchical patterns aroused less resistance elsewhere in Europe. A bit later, the tension between faith and science accentuated. From the Enlightenment onwards, intellectuals increasingly rejected the traditional beliefs, to which the church responded without any dialectical sense, by rejecting certain modern insights. Subsequently, in the second half of the last century, it appeared that ritual practice was subject to erosion. Although a number of changes were made to bring the Mass more in tune with the times, this did not prevent a massive exodus of believers. As a result a large part of the churches are empty, or even have been demolished. And finally, the past decades have shown that Catholicism also has no answer to many scandals in the sexual field. It seems to cling to an agricultural conception of human nature that has lost support in an urban society. What is still standing proudly is a morality of charity and human dignity, although we have to admit that this can also be found among non-believers. As a consequence the importance of religion escapes many Dutch people. The situation of Catholicism as a religious tradition now seems so precarious that only a miracle can ensure its resurrection.

But maybe it's too much to ask while things happen in a less orderly way. It could be that individuals, groups or traditions mainly deal opportunistically with human nature by selecting only those elements that are useful at the moment. That would be consistent with the evolutionary dynamics discussed above. This possibility can be illustrated by four attitudes which we find today and which *only emphasize certain elements* of our nature. Take, for example, the attitude that many Christians adopt in everyday life. Which 'layer' weighs most heavily for them? We know that believers care about their fellow men relatively often. They dedicate themselves to people who are having a hard time, such as the sick, the poor, minorities or asylum seekers. They also aim to reconcile social contradictions and they adhere to an elementary kind of egalitarianism. Although the commandment of charity is now recognized (and even practiced) by the most diverse groups, it is clear that many active Christians take this seriously. In this respect, the figures on various forms of volunteer work speak for themselves.²⁷⁶ This Christian morality has traditionally had an affinity with values that can be considered as 'feminine.' Think of providing care, offering support or showing commitment. All this is a strong reminder of qualities which developed in the earliest phases of our

history. I refer to what Tomasello described as a dyadic morality. Of course we can also think of our biological history when care and empathy were an important aspect of the mutual relations. In other words: what Christians of human nature put first belongs to the oldest layers and therefore evokes broad appreciation.

For a second attitude, I look at traditions that developed long ago on the Indian subcontinent. They were (and still are) strongly focused on forms of ritual action. Although spirits and gods undeniably play a role in this, they do not yet function as the 'heavenly powers' who look down upon the earth from heaven and to whom all believers must obey. The ancient Indian rituals were mainly characterized by the principle of *do ut des*. An endless exchange took place in which all kinds of things were sacrificed to the gods, but with the intention that they would give them back to the believers. According to Bellah these rituals do not refer to a moral or symbolic level. Rather, they provide humanity with certain forms. Life is formless from the outset and ritual forms are required to order it. In fact, the fire ritual documented by Frits Staal (a ceremony that has existed for three thousand years and was performed at least until 1975) is aimed at recreating the cosmos. This type of action originated from a tribal society whose codes resisted all attempts at centralization and state formation. Later a certain hierarchy came into being but this was mainly spiritual and not political in nature. And although the development of Buddhism caused an axial breakthrough in India as well, the old ritual tradition remained largely in place.²⁷⁷ This shows how qualities that we have related to the second stage of human morality predominate here. It is mainly about the acceptance of cultural codes and collective norms, while stories about the power of God do not yet play a dominant role.

Now there are also traditions in which the latter happens very emphatically. Let us take the example of Islam. It is often said that it belongs to the axial time, but it is questionable whether this also applies to the countless ordinary believers who devote themselves to Allah. I myself think that this tradition shows the traits of a religious faith in the classical sense. We know that Islam is radically monotheistic or at least wants to be.²⁷⁸ The unity of God is proclaimed so strongly that one could taste the temptations of a certain polytheism underneath. Furthermore, stories play a prominent role in this faith. The register of language is so dominant that the use of images meets with objections. This also applies to alcohol and to certain forms of music. People want to preserve the sacred from all sensual blemishes. Moreover, it is striking that the sacred affects everything. In the West, we are used to making a distinction between domains such as faith, culture or politics, but many Muslims see this as one whole.²⁷⁹ It is therefore not strange

that frictions with Western societies regularly occur, especially in a society like the Netherlands where secularization has struck hard. Nor is it surprising that certain radical followers of Islam reject any form of integration for this reason. Adopting modern ways of thinking would be an assault on a religious sphere that is believed to have been initiated by God himself. We are dealing here with a different layer, although in this case too we can make a connection with specific parts of our human morality.

Finally, I would like to mention a view that is so young that we can hardly describe it as a tradition, but that has great influence in the current debate. I'm referring to a form of humanist fundamentalism propagating equal rights for all human (and other) living beings. This belief wants to leave behind all distinctions related to culture, age, sexual preference, religion, skin color, political direction or gender. This aspiration is not only based on principles expressed in axial time (such as human equality) but also on their current elaboration in the form of human rights, codes of conduct and language. This presents itself in a new form of morality that knows exactly which words, values and gestures count as correct. It is accompanied by an increased sensitivity to human misery. As a result, victims of oppression, exclusion or normality can be seen everywhere. This view is often substantiated in a rational way, using scientific insights, political argumentation and intellectual considerations. No wonder that this kind of moral humanism is mainly adhered to by educated citizens. They have travelled a lot and are worried about modern life. But it does not prevent them from shopping selectively in the supermarket of human nature. They ignore some things, such as the impact of a religious life. And they regard some other things as taboo, such as the impact of natural differences between men and women. They are prisoners of current affairs who do not wish to delve into our human history. And when they do, it is mainly to show that the past also does not meet the standards of... civilized behavior that we embrace today.

c. Sources of unease

It is obvious that this problem actually deserves a more in-depth treatment. This is unfortunately impossible in the context of this essay. I just wanted to make clear that the story of the human-nature-as-layered-whole is a meaningful project. It may help us to reflect in a better way on the differences and similarities of current traditions. That doesn't seem superfluous in a world where the diversity of philosophical traditions is growing so fast that tensions and even clashes easily occur.

Actually, we would like to have a more general language that understands where the different components come from, what their relative value is, where a certain one-sidedness lies and what the possibilities for a conversation could be. In that respect I would like to return to the motive to develop such a language. I said earlier that the idea of the *homo economicus* cannot do justice to the richness of human life. Hopefully by now it is clear what I mean. However, this equally applies to another idea that has become rather popular nowadays: the postmodern conviction that we could suffice with the recognition of human diversity. If we now make enough room for all the ethnic, religious, sexual, cultural, physical and political differences that count in the world, then it will be all right – such is the mantra of our time. I wouldn't bet my money on that. And not so much for practical reasons as for reasons of principle. Endless diversity does not do justice to human reality either. It ignores the many things we humans have in common. I am thinking not only of our natural history but also of the cultural layers which were discussed before.²⁸⁰ It seems to me urgent to look for *common ground* and to strive for a dialogue between very diverse groups and preferences. As long as we do not engage in such a dialogue a certain uneasiness will stay.

It would be reassuring, in a sense, if the unease of the modern world came only from diversity. But there is more. We also have problems in a 'spatial' dimension as today's life is large-scale in character, whereas we originally lived in small local groups. The broad outlines of this history have been outlined in the foregoing. We have seen that not only the material but also mental space expanded when early people developed a new way of life. While mental contact among primates was still limited to individuals for whom one felt sympathy, among early hunters and gatherers it related to the circle of people with whom one worked together. That circle later extended to all those who were part of the same cultural group, although it was to be extended once more from the agricultural revolution when farmers were incorporated into an empire whose scale went far beyond regional life. And yet the process of expansion would continue. As the urban and commercial society developed, the mental world expanded further. This eventually led to axial civilizations in which universal principles blossomed, a spiritual space which is equally ours and which will continue to exist for some time through processes such as globalization or digitization. Thus we see that the expansion of social life time and again led to a new horizon. It does not follow from this that old circles become irrelevant. Rather, our story about human nature suggests that they still play a role and have a meaning of their own. It would therefore be a big mistake to think that we have to leave all local settings behind

in order to embrace the process of globalization. If this happens – and this is often the case in today’s world – then it should come as no surprise that it leads to reluctance and even resistance on the part of many people.

In addition to spatial terms, we can also express this problem in terms of time. The question then is how quickly things change or even can change. We saw earlier that our cultural evolution has a much faster pace than the natural one. Where the emergence of the human species took millions of years, the great changes that hunters and collectors went through covered many millennia and we even measure later history in thousands. It seems as if development is going faster and faster. This impression becomes stronger as we approach the present. Modern society is barely five centuries old, while far-reaching innovations such as the use of the Internet or digital media only took shape in recent decades. A contemporary cliché therefore claims that today’s changes are ‘superfast’ and some even believe that they are ‘going faster and faster’.²⁸¹ But that impression is highly deceptive, as the story of human nature shows. Certain changes, such as technological and economic changes, are indeed very quick, but cultural, religious and moral changes are much slower. There are also processes whose pace is so slow that we do not even perceive the changes, something which is especially true for the biological dimension of our life. Consequently all sorts of mismatches occur. This happens when a part of human nature originating from a previous era fits badly with the demands of a later period. A well-known example is our diet: dating from the time of hunters and gatherers, it fits badly with the culinary abundance of modern life. These ‘short-circuits’ also occur in areas such as work, health care, politics or sexuality. In all these domains modern man easily forgets that some things in human nature do not change, or only very slowly, with the result that new forms of unease keep cropping up.²⁸²

Each of these tendencies evokes specific forms of unease. Increasing emphasis on diversity makes it difficult to experience what we humans have in common. Striving for large scale makes personal relationships more difficult. And because of the ever faster course of many changes we no longer realize that some things are ‘eternal’ in the sense that they do not change at all or at best very slowly. To that we can add a fourth tendency, namely the typically modern striving for rationality, not taking enough account of everything that touches our passions or feelings. If today’s unease is indeed related to this kind of one-sidedness, then the remedy is, in principle, obvious. We should pay attention to what people with very different social, cultural or religious backgrounds have in common. And this concerns not only their material aspirations such as the care for sufficient food, sex and safety, but also

that which I described as ‘daily transcendence’. We should also pay more attention to living together on a small scale including the personal relations that go with it. Furthermore, we should pay more attention to the ‘slow questions’ that arise in our lives and which have also been thought about for many centuries. And finally, we should pay more attention to the physical, not to say mammalian dimension of our live, including the *moral sentiments* that find their source there. In the terms of our sedimentation model we should in a sense ‘return’ to older and more basic layers of human nature that are all too often ignored in modern life. However, it is no coincidence that this ‘returning’ is in quotation marks. We can never undo the later layers. We can never abandon our universal values and see society as a collection of competing tribes. Rather, it will be about achieving a livable balance in which reason and feeling, selfishness and community, innovation and tradition, globalization and personal involvement, universalism and diversity flourish. In any case, that seems to me to be the most wise way out.²⁸³

Part 8: Spirit of making whole

As we know now what tensions we are struggling with these days and what the story of the human-nature-as-layered-whole has to say about it, I would like to conclude with a brief explanation of the title of this essay. Why holy spirit? In doing so I go back to one of the axioms that underpin my argument, the suspicion that our human imagination is from the outset a source of all kinds of ‘daily transcendence’.

In sketching the different stages of our evolution, three kinds were discussed: knowing, believing and decorating. The first kind is related to our capacity for social learning. We imitate the actions of more experienced individuals, absorb the lessons of previous generations and imagine how things can be improved. Knowledge relies much more on imagination than often is realized. Of course it is important that new ideas are tested in reality, but if we had not been able to form new ideas we would still be walking around with stone axes in the savannah. Our ability to believe is equally important. We perceive much more than material reality: the mood of a fellow human being, the spirit of a mountain or a forest, gods who are in heaven, moral values which we adhere to and causes which explain certain events. Of all these things we assume they exist without any real proof. Finally, human imagination is important when it comes to playing, decorating and other ‘useless’ things. We draw pleasure from physical movements, from a musical melody, from a visual pattern, from exciting stories or from a speech that is convincing. We summarize these practices under the term art. Speaking about art we can make things very complicated but the *bottom line* is that playing with forms evoke an emotional reaction. So human imagination was decisive in all the changes of cultural evolution. Without it there would be no human history at all, even though it remains true that all the products of our mind have to find their way to material action. This notion has already been expressed brilliantly by the philosopher Hegel and I gladly agree with his thinking on this point. That alone would justify the title of this essay.

Yet that title contains another motive. In order to explain that I shall briefly describe how my argument about the human-nature-as-layered-whole is connected with specific forms of knowing, playing and believing. At the beginning of this essay I promised a kind of empirical philosophy. It implies a form of knowing which on the one hand does justice to scientific facts as much as possible and on the other hand takes the freedom to arrange those facts in a different way than usual. That seems to fit well with the origins of philosophical thinking and the function it traditionally had. Philosophy deals with the administration of

our mind. It maps out many kinds of mental activity and tries to answer the question how you can order it in a coherent way. In that respect philosophers resemble the first users of writing. Initially writing was mainly an administrative task. It was about accurately recording how much grain a farmer still owed or how many cows the king sacrificed. Nobody would get the idea to confuse the reality of cows or an amount of grain with their notation on a clay tablet. Yet these clay tablets were necessary to ensure that the ruler kept a certain overview and could govern society. In a similar way philosophers provide an overview of the things that really matter in life. Nobody believes that the insights collected by them coincide with the things themselves, but the ordering of them is necessary for a correct handling of the whole. You have to sort things somewhat, make a distinction between different levels, indicate how things have developed, have an eye for main and side issues, etcetera. Without such an 'administration' it is not possible to manage our lives properly. That is why you have to sketch a convincing view on the whole, knowing that the elaboration can only take place in life itself. A philosopher who does not want to think about the whole does not take his or her profession seriously. The writer of this essay did not want to make that mistake.

But a cognitive whole is not enough. Apart from arranging insights, my argument also touches on the question of what an affective, normative or political whole can look like. That was already briefly discussed when I rejected the glorification of diversity. It is a truism that there are all sorts of differences between things, people, groups, traditions or cultures and that you must always have an eye for the local context in which something happens. The more you zoom in on certain affairs, the more striking the differences are, while the larger connections get out of sight. These days it would be useful to zoom out a bit more and ask the question whether, in addition to a diversity of moral, religious or cultural preferences, there is something that people may have in common. This challenge is apolitical one because it ultimately leads to a definition of the public good and the articulation of a general interest. We never will find the public interest in the midst of all facts. It has to be 'invented' over and over again by telling a story which connects various values or interests. In other words: we must also speak about the whole in a normative sense. You cannot stick to the (in itself correct) conclusion that people cherish various values and therefore have different views on life. Although I do not pretend to know what this general interest will look like in the future, I do consider it worthwhile to develop a way of thinking that bridges the often diverse preferences of today's society. We must ask ourselves which type of 'synthesis' is sufficiently credible today. In order to do that we must

recognize what people have in common. I only hope that my essay will be seen as a contribution to that endeavor.

Finally, there is a third motive why the expression 'holy spirit' seems meaningful to me. The search for a whole has everything to do with our salvation, the healing of wounds that arise, the overcoming of old divisions, the restoration of contact and the making whole of that which was broken. We saw in the foregoing that this desire characterized our spiritual life from the very beginning. It already started with group animals who after a quarrel or conflict often proceed to reconciliation. Aggression is inevitable to a certain extent, but after that repairing the situation is needed. We see a similar gesture in the ritual of sacrifice: in order to live, hunters have to kill an animal from time to time, but they can restore the damage done by sacrificing something. In the later life of faith, sacrifices even take on a crucial meaning. People must always remain on good terms with their gods and accept that those gods take revenge on anyone who make a mistake. From axial times we started to speak a more civilized language, but that does not mean that sacrifice really has disappeared. Efforts are needed to make the world habitable again and to materialize moral values. In one way or another, this turns out to be an essential element of the human mind. We need reconciliation and comfort, even though many think that this is something of the past. To do that we may start playing with forms which speak not so much to our reason as to our heart. Restoring creation (tikkoen olam) is still an urgent task and that was one the motives behind this essay.²⁸⁴

Time series for natural and cultural evolution.²⁸⁵

| Number of years B.C. | Natural history |
|----------------------|-------------------------------------|
| 13.800.000.000 | Origin of the universe |
| 4.540.000.000 | Planet earth comes into being |
| 4.100.000.000 | First signs of life |
| 530.000.000 | Land animals appear |
| 220.000.000 | Mammals arise |
| 65.000.000 | Primates split off |
| 15.800.000 | Last common ancestor Oerang Oetangs |
| 8.900.000 | Last common ancestor Gorilla |
| 6.600.000 | Last common ancestor Chimpanzee |
| 4.000.000 | Australopithecus Afarensis appears |
| 3.200.000 | Hands can grab an instrument |
| 2.400.000 | Appearance of Homo habilis |
| 2.000.000 | Lateralization of the brain |
| 2.000.000 | Homo habilis leaves Africa |
| 1.800.000 | Migration to new environments |
| 1.800.000 | Appearance of Homo erectus |
| 1.800.000 | Ability to throw accurately |
| 1.400.000 | Sophisticated hand movement |
| 600.000 | Descending the larynx |
| 400.000 | Homo Neanderthalensis |
| 200.000 | Homo sapiens appears |
| 110.000 | Last ice time starts |
| 100.000 | Second migration from Africa |
| 50.000 | Homo sapiens in Europe |
| 12.000 | Last Ice Age Finishes |

| Number of years B.C. | Cultural history |
|----------------------|-----------------------------------|
| 3.400.000 | Cutting traces of stones on bones |
| 2.600.000 | Development of stone technology |
| 1.700.000 | Ability to prepare food |
| 1.000.000 | Earliest use of fire |
| 540.000 | First engravings on shells |
| 300.000 | Searching for pigments |
| 135.000 | Use of symbols begins |
| 92.000 | First burial of the dead |
| 65.000 | Invention of bow and arrow |
| 43.000 | Flute as a musical instrument |
| 41.000 | Earliest cave paintings |
| 40.000 | Higher frequency of burials |
| 32.000 | Painting Chauvet Cave |
| 26.000 | First houses built in Europe |
| 11.000 | Cultivation wild wheat starts |
| 9.000 | Agriculture in Fertile Crescent |
| 7.000 | Beginning of metalworking |
| 6.000 | Emergence of urban settlements |
| 4.000 | Development of the script |
| 3.500 | Urban society comes up |
| 3.400 | Invention of the potter's wheel |
| 3.100 | Rise of the first civilizations |
| 2.100 | First law books written |
| 1.800 | Production of iron starts |
| 600 | Circulation of coins |

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Notes

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Part 3 Time of nomads

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Part 4 Time of farmers

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149 Harari 2016, p. 33-34, 37, 42, 146.
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153 In this respect fiction could be compared to flight-simulators: a space where
we can practice to improve our abilities without causing an accident. See also
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122-123, 126-127.
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160 Van Schaik & Michel 2016, p. 90-91, 95, 110.
161 Bowker 2015, p. 60, 70-71.
162 Van Schaik & Michel 2016, p. 108, 150, 183-184, 238, 289.
163 Bowker 2015, p. 12, 25, 54, 130-134; Barrett defends the controversial thesis
that the monotheism of Jews, Christians and Muslims may offer certain
advantages; see Barret 2004, p. 75, 91.
164 Rappaport 1999, p. 4-5, 17, 23-24, 281, 286-287, 309, 311, 334-335, 371.
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169 Kantorowicz 1957.
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171 Goudsblom 1997, p. 77-82.
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184 Graeber 2012, p. 214-216, 225, 244, 246, 257-259.
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187 Graeber 2012, p. 259-262, 265, 268, 270-271, 297.
188 Graeber 2012, p. 79-80, 93, 273-274, 287, 317, 320, 324-325, 335.
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200 Bellah 2011, p. 370, 387-390; Graeber 2012, p. 258.
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221 Bellah & Joas 2012, p. 37-38, 107, 280, 451-453; Bellah 2011, p. 576-577.

Part 6 Perpetual principles

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Part 7 About moral dynamics

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Part 8 Spirit of making whole

- 284 Dan 2015, p. 98-100.
285 Data have been taken from Fewster 2017.