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In the Beginning Was the Word —
Towards a Theory of the Human Being*

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The Human Problem

The question of what it is to be a human being has preoccupied man for at least as long as we have written records of reflecting thinking. One could wonder why. After all, it is not difficult to find straightforward answers to the question of what distinguishes human beings from other living beings. A biologist could put forward a list of physiological features that would be quite sufficient to pick out a human being. To a neurophysiologist it is no match to pin down the difference between a human brain and the brain of the chimpanzee. Today, with the advances in genetics, the task of identifying a human being could even be said to be a rather simple one or, at least, a question of technique. Add to that the fact that whatever our close kinship to the great apes, and to chimpanzees in particular, we do not interbreed — that is the criteria of reproducability used not only by scientists but by anyone to tell different species apart — and we have strong tools indeed to determine who we are.

Why is it then that these perfectly objective answers do not seem to satisfy us? Why is it that books about what it is to be human poor out at an astonishing rate at a moment of history when we have all the necessary knowledge to pick out a human being among other beings?

First, it would be nothing less than a crime to forget that human beings do not always treat other human beings as just that. What scientists accept as evidence is not always accepted as such by non-scientists (and sometimes not even by the scientists themselves!). As we all know too regrettably well, it was not that long ago that Jews and Gypsies and Homosexuals were systematically defined and treated as non-humans. Even today, in certain parts of the world, including in our own, at certain moments of crisis, some people continue to classify other human beings as beasts or animals. It is this representation of the other as an animal which gives legitimacy to genocide and ethnic cleansing. Outrageous racism, with a refusal to interbreed — much too common still in our liberal democratic societies — is another example showing clearly that the fact that we can easily distinguish the species of Homo Sapiens from other species has not solved the ethical problem of how to treat other individuals of our species.

Secondly, even most scientists, like many other people, go on feeling, intuitively or reasonably, that there is something else above and beyond descriptive physiology, reproduction and genetics that makes us human. If we — and science — continue to ask ourselves the question of what it is to be human, it must be because we believe that to be human involves something more than just having a certain set of genes or some specific physiological properties. To be human, in this sense, has something to do with notions like consciousness of the self and of the other, imagination, intelligence, knowledge, free will, creativity, language, empathy and even humour.

In recent years, there has been a marked tendency to minimize the differences between man and the primates, especially between man

* It must be pointed out that this text is a rather hasty attempt to catch the gist of a problem and sketch a tentative solution to the same problem. This does not mean that it has been written lightly, or that it should not be taken seriously. However, it should be taken for what it is, a site under construction.

and the great apes. According to Jared Diamond for example: «Modern studies of animal behavior have been shrinking the list of features once considered uniquely human, such that most differences between us and so called animals now appear to be only matters of degree» (p. 170).

Some scientists would go as far as to claim that the differences are almost insignificant. However, if you take a closer look at the studies of primatologists, ethologists and evolutionary psychologists you realize that the question has only been reformulated: Given that so little seem to distinguish human beings from other primates genetically and physiologically, how can it be that the visible differences are so obviously great?[1] No apes write books to understand what it means to be an ape, no apes send expeditions to the moon or organize genocides with the aid of smart technology. No apes build cars or paint pictures on the walls of caves. No apes have language or mathematics. Or money. No apes use make-up or manipulate their physiognomy through tattoo, piercing or plastic surgery. No apes take drugs or get drunk. No apes bury their dead.

Again, however, it would seem to be a fairly easy task to specify humanness in this extended sense. In his *Modern Philosophy* (1996), Robert Scruton proposes the following list of distinguishing features:

(a) Animals have desires, but they do not make choices [...]

(b) Animals have consciousness but no self-consciousness [...]

(c) Animals have beliefs and desires; but their beliefs and desires concern present objects [...]

(d) Animals relate to one another, but not as persons [...]

(e) In general, animals do not have rights and duties [...]

(f) Animals lack imagination [...]

(g) Animals lack the aesthetic sense [...]

(h) In all sorts of ways, the passions of animals are circumscribed — they feel no indignation, but only rage [...]

(i) Animals are humourless [...]

(j) Underlying all those, and many other, ways in which the animals fail to match our mental repertoire, there is the thing which, according to some philosophers, explains them all: namely, the fact that animals lack speech, and are therefore deprived of all those thoughts, feelings and attitudes which depend on speech for their expression (p. 299–301).

Is not this good enough? Why not content ourselves with this list — or with some amended and more detailed version of it? One could add the fact that humans seem to be the only primate engaged in active instruction, that is, in teaching. Another important addition could be that humans appear to be unique in having a «theory of the mind», that is a capacity for identifying — beyond the interpretation of explicit behaviour — the intentions, goals, beliefs and strategies of other beings of the same species. A third addition would be that human beings are the only beings who have a developed sense of the future and who, because of this, are caught in the dilemma of weighing short-term and long-term benefits against each other. A last one would be that humans are aware of the fact that they are mortal. Why do we need more?

First of all, as Scruton himself points out, the list itself is «undeniably controversial». Is it true, for example, that all human beings possess a sense of humour?[2]

Second of all, and more importantly, every single item on the list involves the use of concepts, which in turn are highly problematic, both in terms of their meaning and in terms of what they refer to. If we knew — assuming that we could agree on the exact definition of the meaning of the terms — what rationality, freedom or

[1] See for example Tartabini, 2001 and Vauclair, 1998.

[2] The same kind of question could be put for several of the items on the list. Is it really true that all human beings, every one of them that is, possess an aesthetic sense, have imagination or «relate to» other human beings as persons (think of psychopats for example!)? I believe that it has not sufficiently been underlined that a theory of the human being must apply to *all* individuals belonging to the category of human beings. The problem is that there seems to be a discrepancy between the genetical/reproductive definition of Homo Sapiens and any known theory to date of the human being in the extended sense defined above.

self-consciousness really consisted of, then possibly we could argue that the question of the human being was partly answered. But we *do not* know. What is — really — rationality? Even when it comes to language, which otherwise would be an obvious candidate for a unique human feature, we lack a proper understanding of what makes it possible, in spite of intensive research during the last century.

Finally, even if we knew what these highly problematic concepts stand for, we still face the problem of knowing how, if at all, they are related, and if any one of them must be considered more fundamental than the others. What is, for example, the relation between imagination and meaning? Is language in any way connected to freedom? Which comes first, self-consciousness or language? What is the relation between rationality and belief?

In his thought-provoking book, *How the Mind Works* (1999), Steven Pinker makes an ambitious attempt to explain the human being in terms of evolutionary biology and cognitive psychology based on the principles of natural selection and the idea of the mind as a naturally selected neural computer. Supported by a wealth of empirical evidence, many plausible things are said about kin-relations, violence, sexuality, rivalry, basic emotions, vision and perception, among others.

However, at the very end of his book, Pinker discusses some problems that according to him «continue to baffle the modern mind», namely subjective experience, the self, free will, meaning, knowledge and morality. Pinker goes on to say that «[p]eople have thought about these problems for millennia but have made no progress in solving them» and he adds: «They give us a sense of bewilderment, of intellectual vertigo» (p. 558). According to Pinker, none of the major attempts to solve these perennial and fundamental «enigma» (the term is Pinker's own) by philosophers or scientists have even come close to give a satisfactory solution, and that goes for evolutionary biology, cognitive sciences and neurophysiology too. Pinker's own solution is simply to suggest that maybe «the mind of *Homo sapiens* lacks the cognitive equipment to solve them». In the same way as «we cannot hold ten thousand words in short-term memory, cannot see in ultraviolet light, cannot mentally rotate a object in the fourth dimension, perhaps we cannot solve conundrums like free will and sentience» (p. 561). Pinker recognizes honestly that his «hypothesis is almost perversely unprovable», but asks rhetorically: «If the mind is a system of organs designed by natural selection, why should we ever have expected it to comprehend all mysteries, to grasp all truths» (p. 563).

All this is very well, and it is to the credit of Pinker that he is not prepared to stretch darwinism beyond the available empirical evidence (which does not mean that he is always right on every other point of course!). However, that is not the crux of the matter. The crux is that it is exactly the enigmatic features listed by Pinker — subjective experience, self-consciousness, free will, meaning, knowledge and morality — that make most of us feel human in the extended, qualitative sense of the word!

So what, then, is the problem of humanness? Or rather, what is it about the human being that needs to be explained? What seems clear is that what is in need of explanation is not humanness in the restricted species-specific sense, but humanness in the extended sense, with ethical consequences for any answer we may come up with. Scruton and Pinker capture some of the features that we normally identify as human in this extended sense. But we have also seen that it is not difficult to add to the list. Instead of doing just that, I would like to single out three aspects, which I believe must be explained in any comprehensive theory of the human being, or rather, in any theory of what makes Homo Sapiens human.

The first of these must clearly be value or morals. As I have tried to show elsewhere (1997), value has precedence over meaning, which in turn has precedence over truth. That is, if we do not have meaning, we cannot ask the question of truth. But for meaning to exist, we have to desire meaning to exist. It has been said over and over again that no «ought» can be inferred from «is». That might be, but the opposite is not always valid. True, the make-up of the world is not a question of morals. The laws of gravitation or electromagnetism will not change because we want them to, because we decide that it would be a good idea if they did or because we think they ought to. But we as human Homo Sapiens might

eventually change if we desire to! What *is* a question of morals is for example the desire to communicate in the world about the world. Unless we take both meaning and truth to be valuable to us, neither meaning nor truth would be facts of the world. It should not be forgotten that our species can live, and has lived, without language and without science. If having meaning and truth, that is language and science, is an essential part of being human, then being human is also a question of morals, of what we want to be and do in the world.

That morals have precedence over truth is empirically shown by the taboo on doing experiments on human beings. It is an ironic paradox that the most heard-headed materialist eliminativists all agree — or take for granted — that we are not allowed, for example, to raise feral children in isolation or with animals, just to see how they will turn out, even though this would clearly be an effective way of testing some of their hypotheses. But the interesting thing is that this ethical principle is never justified or even alluded to as a very special problem of the materialist science as such![3]

That humanness has an ethical dimension is also expressed in the very meaning of the word ‹human›. On the one hand, human can be used in a descriptive sense, designating that which distinguish humans from non-humans, that is as a shorthand for designating the species of *Homo Sapiens*. On the other hand, it is just as clear that «human» is heavily connotated morally. To be human is not only belonging to the species of *Homo sapiens*, it is also *not* being *in*human. Being human in this sense involves possessing positive qualities like empathy, an understanding of others, a readiness to use dialogue instead of brute violence to solve human conflicts, in short it is a synonym of what used to be called to be «civilized».

The particular problem with using the word «human» in discussing humanness is this: the very same features that can be said in a extended sense to be characteristic of humans are the same feautures that are valued positively by most humans, even by those who do not possess them, or only to a small degree.[4]

The second aspect, which a theory of the human being must absolutely explain to be complete, is the possibility of knowledge. Not just knowledge in general, but the very precise fact that nature is so made up that it can have knowledge about itself. This is more than just a special aspect of human self-reflective consciousness; it is the great mystery of nature and of the universe. How is it possible, just to take one example, that nature, by some strange bootstrapping loop, can have knowledge of the relation between matter and energy, that is of $E = mc^2$? However sceptical one is of dualism, it is difficult to get rid of the feeling that there is some kind of force, or some kind og energy, or some kind of substance, which is missing from the equations of physics as we know them at present.

Most natural scientists scorn those who continue to leave a door open for Cartesian or other forms of dualism. But opening the door to a form of *ontological* dualism does not necessarily entail an *epistemological* dualism. I believe that much of the heat in the debate over dualism has simply come from the fact that what the natural scientist resent is not dualism as such — they should know that what they call physical reality comes in different shapes and kinds —, but the view that there should be a special science for studying the mind. But one can accept ontological dualism, or a form of «emergent dualism»,

[3] However, it is likewise interesting — an understatement — that those who break this taboo, be they nazi race biologists or contemporary cloning medicine men, are generally considered to be inhuman in that they treat other human beings as objects of experimentation, instead of as human human beings.

[4] It should be noted, however, that the word «human» is not as positively connotated as it used to be. In fact, as is shown by Kenan Malik in *Man, Beast and Zombie*, the optimistic view on human nature has suffered from the horrors we have seen during the last century. Today there are quite a few who claim that *Homo sapiens* has no moral superiority over animals, rather the contrary. Even so, it is symptomatic that when ethologists and primatologists — or people like Brigittte Bardot and Peter Singer — try to show that the cognitive capacity of animals, and the great apes in particular, have been underestimated, it is always done by trying to show that they are more human than has been thought, very rarely the contrary, that humans are more ape-like than we would like to think.

as William Hasker has termed it (1999), that is separate modes of existence of matter and mind, without at the same time falling into the trap of believing that mind or consciousness cannot be studied by regular scientific method.

I have in fact always been amazed by the loose way the otherwise exact natural scientists use the word «matter». When Descartes and his followers are criticized for believing in the existence of two substances, matter and mind, the critics forget to mention that we have to date no Grand theory explaining the stuff that the universe is made of or the relations between what at least appear to be — even scientifically — different forms of stuff or different kinds of forces. That we should try to explain the mind in terms of the physical laws that regulate the universe, as the materialists claim, is not the issue. The issue is by *what* physical law we could possibly explain the strange fact that nature can have knowledge of itself. Giving explanatory priority to a very loose concept indeed like «matter» simply blurs the question, instead of clarifying it.

The third and last aspect that I believe must be explained in a comprehensive theory of the human being is nothing less than free will. The debate on the nature of free will has very often been put in terms of «nature and nurture», or of the innate versus the learned, or of the genes versus the environment, or of biology versus culture, or of evolutionary psychology and sociobiology versus the social sciences — the terminology has changed throughout history. This debate has always been characterized by passionate feelings, both inside and outside science. Why is it that this debate is so passionate and often so ideologically coloured? After all, few scientists would seriously claim that the human being is *completely* determined by the genes or *entirely* shaped by upbringing and social interaction. The quarrel, then, is rarely a question of all or nothing, but about where to draw the line between the relative importance of the two main fields of determination.[5]

I believe that the reason why some feel so personally about those who claim that what we are is entirely or almost entirely a question of genes or of evolution is that saying that is also saying that we have no — or very little — freedom to shape our lives as individuals or as groups. At the bottom of this reaction — Dostojevsky's cellar man saying that if someone proved him to be completely determined by external forces, he would *choose* to go insane just to disprove that claim — is the distinct feeling that one of the things that makes us human is a measure of free will and the possibility of putting it to use. Take away that measure of freedom, and you take away — or so it seems — what it is that gives meaning to being human. Take away that measure of freedom, and there is also the feeling that trying to better the human condition by conscious effort is useless.

Scientifically speaking, having a certain feeling, even a very strong feeling, does not prove a thing. On the one hand, however, those who claim that genes and evolution determine what we are will have to explain where those feelings of individual freedom come from, their adaptive value and how they can be so strong that some people are prepared to sacrifice their lives for them. On the other hand, those who have the feeling that free will or conscious pursuit of self-willed goals is not an illusion but something real will have to provide evidence that this is really the case. And that is not easy.

I belong to those who believe that one of the constitutive features of humanness is a measure of freedom. As a person, I have the feeling that I cannot live, or only live poorly, without a degree of personal freedom. I have gone to prison to defend that freedom, after having refused to do my military service the day a sergeant told me that we were in the army «to learn how to obey without thinking».

But again, the fact that I cannot live without a feeling of freedom — nor without knowing that other human beings also have a measure of freedom — does not mean that personal freedom exist as a fact of the world. I could be proven

[5] Even if, according to Steven Pinker in his latest book, *The Blank Slate*, there are still those who claim that each human being is a blank slate at birth, to be formed almost entirely by culture. It is also true, as is shown by the overview given by Laland and Brown in *Sense & Nonsense* (2002), that there are those among the evolutionary biologists and psychologists who leave very little scope for the imprint of culture on the genetic heritage of the individual.

wrong. I could be the victim of an illusion. What this need for freedom does mean, however, is that I will try to prove wrong scientific theories which offer no freedom, and that I will try to find evidence for those theories that do. As such, this bias has nothing to do with good or bad science, as long as I am prepared to be proven wrong. No one accuses scientific research in medicine of being ideological or subjective because one of its goals is to produce medicine, which can cure illness and better the human condition. Why is it that these suspicions so often befall scientists working in the human sciences with the aim of bettering the human condition?

An important thing to note is that the opposition between those who believe that human beings have a measure of free will and those who believe that the human being is largely a victim of determination is not the same opposition as that between the nativists and the culturalists, between the evolutionary biologists and the social scientists, between nature and nurture. In fact, it is more often the case than not that the opposing camps, typically evolutionary biologists and social scientists, argue about *which* determinations, evolutionary/biological *or* cultural/social, are the strongest. But a society can be just as oppressive and victimizing as genes. In fact, the majority of scientists, on both sides of the demarcation line between nature and nurture, are determinists and have, ideologically speaking, more in common than not. This is natural in the sense that science is trying to find the laws — be they physical, chemical, genetical, biological, psychological or social — that regulate the universe, including the human being. Free will, however, is typically a question of *breaking* the laws and so seem to fall outside the scope of science.

The real and difficult problem, then, is not the choice between nativists and culturalists, which must be solved by rational argument and evidence, but between those who see the human being as a victim of external determinations, be they genetic, evolutionary, psychological or social, and those who believe that the human being, as a potentially rational agent with a measure of free will, can fight and in some cases win the fight against those determinations. Just to take one concrete example: when evolutionary biologists show with overwhelming evidence the great importance of kinship relations and its consequences, the question I would ask is to what extent it is possible for a given individual or for a group of individuals to make water thicker than blood, instead of the opposite, regardless of whether the importance of kinship relations comes from genes or society and culture.

The Beginning of an Answer

As a writer of fiction, a literary scholar and a linguist, words, for good or for bad, probably mean more to me, in both senses, than they do to many other people. So it is no wonder that I have always been fascinated by those words from the gospel of John: *In the beginning was the word. And the word was with God. And God was the word.*

For a long time, I understood these three phrases as a general statement about the importance of language for the human being. Later, however, I began to wonder if the phrase could not have a more concrete signification. The first step in that process was to take it, hypothetically, at it's face value. What if it were *true* that *the word was in the beginning*? What if you assumed that the authors of the Bible on this particular point were trying to say something true about the Creation of Man and Woman? What if you supposed that human beings *became* humans when they invented or discovered — or received as a gift from God — the word, that is language?

It was soon clear, however, that the explanatory Grail of humanness was not the «word» or language, as such. The crucial element was something else, intimately related to meaning and language but not identical with it. After a lot of reflection, I ended up with a very simple idea which I have come to believe is the key to the understanding of what it is that make human beings *human* in the extended and qualitative sense defined earlier. In the beginning was not the word, nor language, gestures or meaning. In the beginning was something even simpler and more basic, namely the discovery that *one thing can be used to stand for any other thing*. This simple function is sometimes called *symbolic representation*, sometimes *symbolic reference* or

just *reference.* It was this and nothing else which through a long cultural evolution paved the way for all the extraordinary capacities of the human being and it is this, which must be the central element of any theory of the human human being.[6]

It all began, then, when two would-be human beings discovered that one thing — *any* thing, a physical or man-made object, a sound, a twinkle of the eye or a gesture — could replace another thing and stand in its stead. It was this discovery — or invention — or gift from God — which opened the door to self-consciousness, to free will, to imagination and to other capacities normally associated with the fact of being human. It is, for example, because we can use one thing to stand for another that we can ask seemingly impossible questions about what it is to be human, about existence and about the meaning of life. Without symbolic representation there would simply be no way to question reality and to ask ourselves if it really is as it is perceived to be. To put it more simply, without meaning, no truth. Without meaning, science would not exist, nor this text. But how can something so simple give so far-reaching, complex and obscure consequences?

Try to imagine what happens the moment two beings use one thing to stand for another, for example in order to communicate the presence of a danger or to indicate where food is hidden or abundant. The first thing to happen is important, but rather trivial and not very mysterious: the use of symbolic representation increases vastly the possibilities of communication between the beings involved. Note, however, that symbolic representation is *not* a necessary prerequisite for communication. There are beings, among them human beings, who communicate without the use of symbolic representation. One can even argue that some animals, like bees, have a primitive form of symbolic representation. However, the one crucial difference is that in human symbolic representation *anything* can be used to stand in anything else's stead. That is to say that the typically human symbolic representation is not, as it has been called, *motivated.* In other words, what the human being discovered — or invented — was the *arbitrariness* of the thing used to represent something else.

Another way of putting the same thing, which has been well formulated by Peter Gärdenfors (2000), is to say that the would-be human beings discovered the possibility of *detached* representation, that is a form of representation where the representation bears no resemblance or has no perceivable link in time and space to the thing represented, to the referent.

Why was this discovery so important? Because it meant that human beings had to decide *together* what should be counted *as* a symbol for something else. It meant that they had to develop means to make decisions in common. It introduced a radically different form of intersubjective interaction than that which had been known before. It also forced the human being to develop means of remembering and transmitting the decisions made to the rest of the population. It put a lot of pressure on developing the memory and on techniques of remembering.

There is in fact an ontological difference between motivated and arbitrary representation, or between detached and non-detached representation. A bee can «understand» what a certain smell stands for without having to negotiate and decide with other bees which smell should stand for what flower. Would-be human beings can understand that smoke is a (motivated) sign of fire without having to «discuss» or decide what smoke stands for. The only thing that is required is that they have remembered the once perceived linkage between fire and smoke. Not so with arbitrary and detached representation. An individual cannot understand what an arbitrary symbol stands for without having learned or having been shown what the symbol stands for.

Now, the second consequence of the discovery — or of the invention — or of the gift — of arbitrary and detached symbolic representation is just as radical. It meant that the perceived reality was divided in two, one reality which was

[6] It should be pointed out that I have been including parts and fragments of this theory in my literary work during later years. That goes particularly for the novels «Drömmar vid havet» and «Den sanna berättelsen om Inga Andersson», neither of which has been translated into English. The first, however, exists in German, Italian, French, Norwegian, Danish and Greek. The second will be published in French by Grasset and in Italian by Iperborea.

perceived with the senses and one reality which was that of the symbols used in symbolic representation, or, to put it differently, one reality constituted by what was evident, not mediated and immediately perceived, and one reality which consisted of symbols and the things these symbols stood for, a reality largely detached from perceived reality and in that sense *freed* from reality.

This division of reality in two is of outmost importance. Why? Because the foremost advantage of arbitrary instead of motivated representation is that it gives a possibility to refer to things that are cut off from sensory experience. Or, to be more precise, arbitrary representation makes it possible to refer to things that are not perceived by the five senses and/or have no sensible link to the referents.

However, this immense advantage of having the possibility to refer to things cut off from sensory experience, that is to absent referents, also have another side, namely this: how do we know that the absent things to which we refer by way of arbitrary symbolic representation really *exist*?

Indeed, this is weakness of all references done by way of arbitrary symbolic representation to absent referents, today as well as then. Arbitrary and detached symbols, and foremost among them words, give by themselves no guarantee that the referent, the thing referred to, has real existence.[7] Let us say that two would-be human beings decide to use a certain stick to refer to a certain banana hidden in a cave. It must be clear that the sole existence of a detached symbol for this banana does not in itself guarantee that the specific banana is still in the cave. It can have been eaten. Not even the fact that we have a symbol representing bananas in general guarantee that there (still) are bananas in the world. It is easy to imagine a situation where the banana tree has ceased to exist because of some voracious insect. In short, reference by way arbitrary symbolic representation can very well fail because the referent has ceased to exist. This in turn leaves the would-be human with a certain piece of stick whose function *was* to refer to an absent thing, but which now refers to something that does not exist at all, something which could be called a concept or an imaginary thing.

This has some monumental consequences for the continuation of the story. If we assume, which I think we must, that early references made by would-be or near humans sometimes failed, then we must also assume that human beings would start to wonder about the continued existence of absent things. Or, to put it in another way, it became possible to doubt existence in a way which had not been possible as long as reality only consisted of what was perceived by the five senses, present or remembered. It is here that we have the germ to the constant temptation to adopt a relativist or idealist conception of reality, be it ontological or epistomological, from Plato to Derrida. Because animals, including the great apes, lack arbitrary symbolic representation, it can be safely assumed that they do not doubt the existence of perceived reality.[8] On the final account, it is because symbolic representation does not in itself guarantee existence that it is so easy to adopt a relativist or idealist stance towards reality. But it should be noted straight away that the simple fact that one thing is made to stand in another thing's stead leaves physical reality as it is. Physical reality, one could say, does not change because we start to talk about it or because we can start to imagine new realities. What happens is rather that reality is extended. Reality is no longer only made up only of our sensory experience of reality, but includes from now on a new realm, situated in our heads, which consists

[7] This is of course also partly true for motivated symbols. However, some of these symbols, those that are directly connected to the referent, like smoke as a sign of fire, will disappear along with the thing referred to. The same goes for motivated sound-symbols which will disappear when the thing referred to turns silent. A smell-symbol will gradually disappear along with the disappearance of the perfume source. Iconic representations (i.e. pictures) will still be with us after the disappearance of the thing represented by the icon and might then the give rise to the same kind of problems as the arbitrary symbol. However, it is doubtful that would-be human beings can produce iconic representations without first having acquired the mechanism whereby one thing can stand in another thing's stead.

[8] They might be *deceived* by perceived reality, but they will not idealistically doubt the very existence of perceived reality.

of symbols and the memory of the things referred to.

It is easy to understand how arbitrary symbolic representation is the necessary precondition for imagination, fiction and belief. It is because arbitrary symbolic representation detaches us, *frees* us from immediate reality that we can start to imagine that reality, including our own, could be different from what it seems. It is here that we have the seeds to free will: free will starts when we can imagine that reality could be different than it is. Free will starts when we can begin to think that our dreams, that is the products of our imagination, could come true (which of course does not mean that they always will come true). And along with free will, morals become possible. It is only because we believe that we can change our behaviour and the behaviour of others by norms that morals become meaningful. What would be the point of prohibitions if nobody obeyed them? It is also thanks to this imaginative capacity that we are freed from the present and that we acquire a future, that is chronological time. The future, as we all know, has no real existence, but has to be imagined. The same thing goes for death-awareness and the belief that there could be a life after this, which would explain why humans as the only primates bury their dead. But imagination is also a condition for the notion of the self. The inner self is not palpable and cannot be observed by immediate perception. The self, as is the self of others, is a notion based on the capacity to imagine the existence of something which is not directly observable. The same is true for self-consciousness. It is symptomatic that one of the things that has been put forward in recent years as specifically human is what has been called a «theory of the mind». But what is a theory, if not an heuristic construction of imagination?

Of course, there are many other factors beside arbitrary detached symbolic representation that play a role in the creation of human human beings. But I am firmly convinced that symbolic representation is the key to understanding the specifically human features of humanness in the extended sense defined above.

In the very beginning, of course, the symbolic realm of the first humans must be thought of as extremely rudimentary. I picture the first arbitrary symbolic representations as singular, functioning rather like proper names or as a form of rigid designators, without any attempt at categorization, in a relation of one to one. That is that one specific thing (a given piece of stick) represents another specific thing (a given hidden banana). However, it must be imagined that the piece of stick was soon used to refer to *several* bananas and that it was used over and over again. That would be the origin of conceptualization, categorization and abstraction. A concept, in this view, would be the memorized trace of all the actual references effectuated by way of the same symbol.

The next decisive step is when someone stumbles on the brilliant idea that one symbol could be made to stand in the stead of another symbol, that is when the meta-symbolic function is invented. This opens up a whole array of new possibilities at stabilizing the meaning of existing symbols. It is, for example, the meta-symbolic function of language which permits us to give descriptive definitions of meaning, that is that meaning is fixed without any reference to the referents outside language.

But at the same time as the meta-symbols are even further away from perceived reality than the first-order symbols, the former are still referential. It is here that we have the germ to belief. Since symbols were originally used to refer to existing but absent things, and since meta-symbols continue to be used referentially, it is natural to believe that that there «must» be something «out there» which corresponds to the symbol used. One could say that there is an existential presupposition attached to the referential symbols.[9] Semantically, there is no difference at all between the three nouns ‹god›, ‹unicorn› and ‹horse›. As far as their meaning goes, all three could designate existing or non-existing entities. The same goes for the semantic meaning of proper nouns, be it God or de Gaulle. Belief is in

[9] This point has been made by the French linguist Georges Kleiber, first and foremost in his *Problèmes de référence. Descriptions définies et noms propres*, 1981, necessary reading for those who are interested in the relation between meaning and the extra-linguistic world.

fact attributing existence to an imagined referent which might, or might not, exist.

A later consequence of the detachment of symbols from perceived reality should also be noted. Arbitrary symbolic representation made it possible to detach symbols for grammatical and structural use, that is that it became possible to organize symbols both vertically and horizontally. This is in turn the beginning of language as we know it, that is a system of double articulation where some symbols do not have meaning in themselves, but are only used to structure meaning. Language in this view derives then not from reference as such, but rather from failed references, a process known as grammaticalization where referential terms progressively acquire grammatical functions or become specialized in that they refer only to other items of meaning.

In the beginning of the story of *Homo sapiens*, then, was not the word as such, and certainly not fully-fledged language, but the invention — or the discovery — or the gift from God — or simply the «good idea», as Steven Pinker would probably call it — that one thing, *any* one thing, could stand in another thing's stead, that is that any one thing could re-present any other thing, that is that an arbitrary form could be used as a substitute for other things.[10] It was exactly this marvellously simple but far-reaching invention which detached us from our immediate reality and made us into what Terence Deacon rightly has called the «symbolic species» (1998).

This then is the story in its broad outlines. But telling a story is one thing. Telling a true story is another. Telling a complete story with a beginning and an end is even worse.

The Continuation of the Story

What are the implications of this sketchy story of the coming into humanness of the human being? And what are the empirical evidence in support of the story as I have told it?

[10] The reason I write re-present, rather than just represent, is to emphasize the fact that the very word we use in ordinary language reflects the idea that symbols and signs, be they arbitrary or not, present something «once more» to the mind.

It is of course way beyond the scope of a single article to try to answer both these questions. Here I would just like to state that I believe that the theory is compatible with some well established empirical facts about the human being, be they evolutionist, neuro-physiological, psychological or social. Maybe most importantly, the theory is compatible with what Michael Tomasello has called the «time problem», that is the fact that

> there simply has not been enough time for normal processes of biological evolution involving genetic variation and natural selection to have created, one by one, each of the cognitive skills necessary for modern humans to invent and maintain complex tool-use industries and technologies, complex forms of symbolic communication and representation, and complex social organizations and institutions (1999: p. 2).

This «time problem» is related to what paleoanthropologists have named the «great leap», that is the fact that modern homo sapiens seem to have appeared fully-fledged on the scene very suddenly and not very long ago.

Both the great leap and the time problem point toward an explanation of humanness in terms of something discovered, invented or — for those who believe — given by God, something which in turn has been developed, fine-tuned and transmitted culturally rather than genetically. From what we know at present about human evolution, it is simply not very plausible to think that humanness in the extended sense — including freedom, consciousness of the self and of the other, a sense of the future, death-awareness, subjective experience, aesthetics and empathy and other such capacities — is a result of selective adaptation through random mutations. Or, in other terms, there are no specific genes responsible for symbolic representation, nor for free will, imagination or language. Humanness in the extended sense, it could be said, is not hard-wired in the genetic make-up of homo sapiens. What is hard-wired is the enormous plasticity of the brain which make it possible to acquire and develop outstanding cognitive capacities during a lifetime.

Saying this, however, is also saying that humanness in the extended sense is something

rather precarious which has to be won and defended by each culture and each generation, something which cannot be taken for granted, nor experimented with by cloning or genetic manipulation, something, simply, that can be lost. There are, sadly, human beings who are not human in the extended sense of the word (a fact which, however, does not give us the right to treat them inhumanly). Genetic manipulation and cloning for whatever reason could increase their number dramatically.

Theology and Arbitrary Symbolic Representation

What could be the implications of a theory of humanness based on arbitrary symbolic representation for theology and religious belief? The most important implication, I believe, is that this theory could form a bridge between rational secular science and at least some forms of Christian religious beliefs concerning the creation of the human being. As I have already pointed out, the theory of humanness based on arbitrary symbolic representation is compatible with the belief that God — rather than darwinist adaptive selection — created, not the human being as such, but the *human* human being, *human* in the sense of a being endowed with such capacities as imagination, self-consciousness and consciousness of the other, empathy, knowledge, meaning, language, free will, a sense of the future and thus of its own mortality, morals... and thus of sin. The words from the gospel of John should in this interpretation be taken almost literally: *In the beginning*, then, of the human human being, was not the word as such, but *arbitrary symbolic representation.*

But why then also *And the word was with God. And God was the word*? Because, in a secular interpretation, God would be the very symbol for this extraordinary invention or discovery that one thing could be used to stand for another and thus, too, for the extended intersubjective communication made possible between human beings. However, as we have seen it was also this gift that gave us not only free will and knowledge, but also the possibility to lie, to deceive and to go mad in the sense of loosing all contact with physical and immediately perceived reality. That is why, I believe, the word of God in most religions is treated not only as any kind of meaning, but as the *truth.* Since the human being, given the arbitrariness of symbolic representation, can easily loose contact with reality, since too the relation between meaning and referents in the actual world is a precarious one, some kind of guarantee of the stability of representations was needed. This guarantee was God. Why has the Word, and particularly the written word, always been treated with such respect and placed under the supervision of priests, druids, shamans and other representatives of religion? Because the function of this supervision was to stabilize meaning, to help keeping the feet of the symbolic species on the ground, that is, simply, to stop human beings from turning into Don Quijote or Emma Bovary, but at the same time allowing enough exercise of imagination to stay human. This is also, to my mind, why interpretation and hermeneutics have played such a pre-eminent role in religion, and why heretical interpretation has been severely punished. At the bottom lies the fear that the relation between the symbols and the world is lost with the very real risk of madness or inhumanity looming ahead. This could also explain why lying is condemned. Lying is nothing less than a way of putting doubt on the relation between the symbols and the world, all to easily done since that relation is arbitrary. If everybody lied, symbolic representation would break down and the human being would no longer be human.

I would even go further than that and say that the original sin was an act of lying. Why would it otherwise be a sin to take a bite of the apple of knowledge? If not because knowledge, unless it is shared by everyone, is exactly, together with arbitrary symbolic representation, a prerequisite for lying. Or to put it differently, one can only lie about absent referents about which one has knowledge. Paradise, then, would the place where no one is lying. Or, rather, it is a reminiscence of a world where no one was lying and where arbitrary symbolic representation had not yet introduced suspicion and doubt about existence, where everything was as it seemed to be, where no one, because it was not possible, would ask themselves questions about life after this,

about the meaning of life, about who we are, about where we are heading. In Paradise, of course, before symbolic representation, time stands still because it is not possible to imagine a future.

In fact, the Christian concept of love and compassion could be seen as the necessary antidote to the risks of abuse involved with arbitrary symbolic representation. Dispassionate and disinterested love is the first and foremost safeguard against inhumanity because it is an expression of the fundamental intersubjective nature of symbolic communication. If God were seen as the Word of Love, I would be prepared to go along with that, as a non-believer. I would, however, absolutely refuse the idea that to be human in the moral sense of the world one has to believe in a transcendental God. A true humanism, a strong humanism, can equally well be founded directly in the condition of the human being as a symbolic species instead of taking the detour of religious belief.

The Use of a Theory of the Human Being

When one takes a look around at the world it is easy to feel depressed and dismayed. So much violence, so much suffering, so much oppression, so much tyranny, so many lies. Can a theory of the human being contribute at all to bettering the human condition? The best answer to this question might be another question: Why else would one try to formulate a true theory of the human being? Why would we need to understand what the human being is all about if it served no other purpose than producing an inert piece of knowledge which does not make a difference to our condition as humans, if this knowledge did not permit us to some degree to influence our own destiny?

I wonder if even the most heard-headed and hard-cored of the materialist scientists would not at least agree that it *is* of use for the human being to have true rather than false or illusive knowledge about the world, that true rather than false knowledge, including of the human being itself, would enable us to live better in the world and together. But saying that is once again saying that morals has precedence over meaning which in turn has precedence over knowledge. Wishing to better the human condition for each and every human being is a moral precept. Like all moral precepts it presupposes a measure of free will which in turn presupposes a form of detachement from reality; a detachement which, in my view, can only come from arbitrary symbolic representation which, since it is arbitrary, can never be specifically derived from darwinistic selective and adaptive evolutionary principles.

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