1. There have always been two different approaches in determining what a human being, what Man is: a scientific approach and a philosophical one (in a broad sense, including religious and humanistic approaches). Thus, since antiquity, in the European tradition, a distinction has been made between the biological and the cultural nature of Man: between what is natural to him in a physical and biological sense, and what pertains to him culturally, what is his ‘cultural essence’. This, however, does not mean that both ‘essences’, the physical and the cultural, fall asunder, and that therefore Man disintegrates into two ‘essences’.

In fact, Man is a natural being, who can live only as a cultural being and can find his purpose only as such. Descriptively, within the context of biological systematics, mankind is a sub-species of the species *homo sapiens*, namely *homo sapiens sapiens*, and is the only recent member of the genus *Homo*. But this definition includes only the empirico-physical side of Man, not that which makes up the essence of humanity ascriptively, namely its form of self-description and (not conclusively established) self-determination. This latter was described classically as the *animal rationale*, a being endowed with and determined by reason, or as a being lying between animal and God. Newer philosophical anthropologies (after Friedrich Nietzsche) capture this notion in the concept of a *nicht festgestelltes*, i.e., a not-yet-determined being (both biologically and culturally). One makes a category mistake, if one interprets our actions and thoughts as the products of natural processes whereby even the act of interpreting becomes part of nature, a ‘natural fact’. But we fall into a new form of naiveté if we oppose this interpretation with a claim that scientifically discovered facts have no influence, or at least ought to have no influence, on the self-determination of Man. Thus it is a matter of adopt-
ing a scientifically informed and philosophically considered position, one which is beyond mere *biologism* and *culturalism*, which in other words is beyond an absolute distinction between biological and cultural explanations, and which refers to both the lives that we lead, and the laws that we obey. Such a position should neither reduce Man to (pure) nature, nor to the (absolute) spirit he aspires to be.

2. Modern philosophical anthropology mirrors this situation. It takes its point of departure from two opposing conceptions: that attributed to Max Scheler and that of Helmut Plessner. According to Scheler, philosophical anthropology is nothing but the quintessence of philosophy itself. According to Plessner it follows the methodology and achievements of the empirical sciences of Man in the form of an ‘integrative’ discipline. Scheler hearkens back to traditional determinations of Man as *animal rationale*; Plessner embraces the orientation of biological, medical, psychological, and, in the extended sense, social-scientific research, and he does this with the conceptual goal of a structural theory of Man. Common to both thinkers in the characterisation of Man is the concept of *world-openness*, which includes the aspect of the openness of human development.

According to Scheler, ‘Man’ is the ‘X that can behave in a world-open manner to an unlimited extent’. According to Plessner, ‘Man’ is characterised by an ‘eccentric positionality’, whereby his eccentric existence, that possesses no fixed centre, is described as the unity of mediated immediacy and natural artificiality. Accordingly, Plessner formulates three *fundamental laws of philosophical anthropology*: (1) the law of natural artificiality, (2) the law of mediated immediacy, and (3) the law of the

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utopian standpoint. Similarly, Arnold Gehlen states a thesis, that Man is by nature a cultural being, whereby his cultural achievements are seen as compensation for organs, and ‘Man’ is defined as a creature of lack (Mängelwesen). For Nietzsche, as mentioned before, ‘Man’ is the not-yet-determined animal, and science is seen as the expression of human endeavour ‘to determine himself’. Furthermore one of the reasons for the difficulty of saying what is Man lies in the fact that Man is the (only) creature that possesses a reflective relationship with itself. That Man, as Heidegger says, is the creature ‘which in its being, relates understandingly to its being’. This opens up a broad horizon of possible self-interpretations of Man, and to this extent a broad horizon for an answer to the question, what a human being, what Man is. The only thing that is clear, is what, with regard to the essential openness of Man, can be called the anthropologically basic condition.

This openness affects all phases of human development, both from an ontogenetic and from a phylogenetic point of view. There is no ‘natural’ fate in the becoming of Man, as an individual or as a species, that might be definitely determined by biological laws, even though of course the ‘schema’ of this development is prescribed by certain biological regularities. Thus, there is no adulthood before childhood, no reverse ageing, no Achilles who is young until he dies. In psychological terminology: the architecture of human ontogeny is incomplete, and not merely in earlier stages, but throughout a lifetime.

It is especially in the opposed but complementary concepts, nature, or causal relation, and culture, or institutional relation, that in this context

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(in the framework of human ethology) make clear the different, but in the anthropological context, indelibly reciprocal approaches to analysis. ‘Causal and intentional regularities constitute strictly distinct ranges of objects that must be studied by the disciplines of natural science and cultural science with different scientific methods. Causal regularities are constrained by initial conditions. Intentional regularities are determined by goal representations which, due to their social mediation, normally do not become conscious. The disputed question of whether, and to what extent socio-cultural behaviour is naturally and biologically determined or vice versa, is actually a dispute about whether or not some empirically observed behaviour is to be taken as “natural” (belonging to nature) or as “cultural” (belonging to culture).

From this, it is also clear what kinds of tensions are involved in all forms of philosophical anthropology. These, correctly, all see themselves (inside and outside philosophy) as fundamental, but in an integrative sense (similar to Plessner’s approach) that takes the knowledge of Man acquired by other (empirical) disciplines into account. Thus, even within philosophy science has its day.

3. Today we are promised great gains above all from the developments of the ‘new biology’, for example, in medicine. But there are great risks as well; for instance, in the thoughtless or irresponsible application of bio-engineering. This is nothing fundamentally new. Discoveries and inventions that point to the future have throughout human history come saddled with dangers and risks of abuse of a new and usually unimagined order. What may be new in the case of modern biology is that developments in biological knowledge now appear to place Man in the unique position of being able to change his own nature, and that this development has ethical consequences. Man intervenes ever more powerfully in evolution, even his own, and he changes the measures by which he previously described and shaped his fate, the human condition itself.

We have known since Darwin that Man, not only from the point of view of philosophy and culture, but also biologically, has no fixed essence. Even though this understanding is imperceptible to the individual and only recognisable to science over great periods of time, nevertheless, he is subject to fundamental changes. That Man can intervene in these changes

11 K. Lorenz, op. cit., p. 23.
himself has only become clear in the light of the new biology – an ability to deliberately change his own genetic constitution and that of his progeny. In fact, the conditio humana itself is changing: in the sense that now even Man’s biological foundations are at his disposal. This creates a completely new and consequential situation in the domain of ethics.

There are various consequences that have been drawn from this situation. One is the call for a bioethics code, an applied ethics that deals specifically with biological states of affairs. Such a code would prescribe watchfulness and particular measures in certain fields as well as certain applications that could be formulated as rules for an ethics of responsibility. Such rules if applied to developments in genetic technology might include a careful checking for possible undesirable results and also a rule of caution, permitting choice of the option that offers the greatest security of prognosis and the least expected harm. However, the debate over the ethical problems of biology extends far beyond bioethics into the direction of environmental ethics, which attempts to change the foundations of ethics itself.

The point of departure of such a concept of ethics is often an argument about going against nature. According to this position, genetic engineering and interventions in human reproductive processes do something that is the business of nature alone; they intervene in a regulatory manner in a self-regulating nature. Gene transfer may cross species boundaries, and thus infringe on the ‘identity of species’ and disturb the (relative) stability of ecological balances. In arguments of this kind, we find biological uncertainty – what is then the ‘identity of species’? – coupled with ethical unclarity – what does ethics have to say about the order of species, that is, about biological classifications, or even about nature as a whole, however that is imagined? Those who think (and write) this way are confusing the empirical (biological states of affairs) with the domain of the normative and commit the naturalistic fallacy, that is, they infer what ought to be from what is; they derive norms from facts.

This is precisely the case in the well-known arguments of Hans Jonas. He declares the natural to be the highest norm and views any intervention into these natural processes as an offence against ‘naturally’ given norms. For Jonas, the technology of cloning is in ‘contradiction to the dominant

strategy of nature'\textsuperscript{14} and thus cannot be justified. The natural – here in the form of a natural reproduction – consequently appears here as something not to be interfered with and as something that pursues its own goals, with strategic means and that by these means makes itself the highest normative authority. As a matter of fact, the attempt is made repeatedly to construct an ecological ethics on the basis of an inference from facts to norms (which usually reveals a concealed naturalism) and to then oppose this new ethics in the form of \textit{physiocentrism} to the \textit{anthropocentrism} that has long dominated ethics and which is now (in many aspects erroneously) declared to have been a basic error. For the anthropocentric position – both in questions of ethics and of nature – Man is the point of departure of all arguments, and nature has no intrinsic moral value. For the physiocentric position, nature is characterised by its own (absolute) intrinsic value, which at the same time implies duties of Man toward nature. To be more precise, we can distinguish between \textit{pathocentrism} (all sensible creatures have a moral value), \textit{biocentrism} (all living creatures have a moral value) and \textit{radical physiocentrism} which, as just mentioned, makes all of nature the bearer of moral value. Common to all these variants is that values, which in fact are always the result of valuations, are declared to be a part of nature itself.

The expansion of a bioethics (a sub-area of applied ethics) to biological ethics in the form of, or against the background of physiocentrism, is thus based on a misunderstanding. This expansion not only makes ethics dependent on a particular view of the world, but also leads by its naturalistic premises to a new (ethical) \textit{biologism}. Biology is expected to be an advisor and also a legislator in ethical affairs. And this in turn involves both a philosophical and a biological misunderstanding, since the new biology teaches us how permeable the boundaries are between the natural and the artificial, that is, those processes determined by Man. The appeal to nature in ethical questions, which made sense in archaic cultures, no longer makes sense here.

One more point: the notion that moral conduct as a particular form of social behaviour is itself the product of evolution or can be given an evolutionary explanation leads one astray if it is understood in an absolute

sense as a foundation of ethics. Whereas in the first case of a biological ethics, natural relations are to be taken as the standard of ethics, in the second case, ethics would be a product of these relations, and thus our ethical deficits would not be due to the failings of reason, but to an evolution that was unfinished and unable to cope adequately with Man. An *evolutionary ethics* would in this sense be a convenient excuse for tasks unaccomplished in Man’s dealing with himself, and with nature. However, nature gives no ethical lessons, neither in the form of physiocentrism nor in the form of evolutionary ethics. Nature only reminds us when harm is caused – think of environmental problems – of the unfinished tasks of rational ethics.

4. Here it is appropriate to remind ourselves of Immanuel Kant’s concept of a rational ethics that is both *normative* (not evolutionary or biological) and *universal* (not particular or relativistic); that is, the principles of which are universalistic. According to Kant, this concept does not derive its validity from nature or from the values of certain (particular) cultures, but rather from a general will that is best expressed in the so-called end-formula of the categorical imperative: ‘Act in such a way that you always treat humanity, whether in your own person or in the person of any other, never simply as a means, but always at the same time as an end!’\(^{15}\) Only the ‘rational’ being exists as ‘an end in itself’.\(^{16}\) This is why for Kant only rational beings have ‘dignity’. The concept of a universal ethics, just as the underlying idea of *universal reason*, is often said to be typically ‘European’, determined by the ideas of Christianity and the Enlightenment, and therefore, at least if seen from the outside, to be particular, i.e. not universal. Yet this is a misunderstanding. After all, its expressions of a corresponding ethical universality are, for instance, the concept of human rights and in connection with them, the concept of human dignity.

In other words, as in Kant, anthropological arguments are linked to ethical arguments – and to scientific arguments so far as Kant distinguishes between two worlds, the natural world constituted by natural laws (which is also phenomenal), and the moral world constituted by (universal) reason (which is also noumenal). Man is a citizen of both

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16 *Op. cit.*, B 65 (*Groundwork, ibid.*).
worlds, and this is why, as I said before, he cannot be reduced either to (pure) nature or to the (absolute) spirit that he aspires to be.

5. In an unpublished manuscript ‘On truth and lie in an extra-moral sense’, Nietzsche made the following comment: ‘What does Man actually know about himself? ... Doesn’t nature conceal almost everything from him, even concerning his body, in order ... to drive him and enclose him within a proud and magical consciousness! She [nature] threw away the key’.17 Although this remark is hardly up to date from a biological point of view, it remains quite current from the anthropological one. The human condition is still characterised by a need for self-determination. And for this very reason we should not be looking for a lost key. There is no such key. Self-determination is not just the fate of the individual, but it is also the fate of humanity itself, it belongs to the essence of humanity. When one overlooks this, for instance when we search for the biological or the philosophical answer, we are threatened on the one hand by biologism (Man is only a biological species) and on the other by ideological dogmatism (Man is lost in his own ideologies). So, even in the face of a steadily growing body of biological knowledge and a biological nature that is increasingly at our disposal, it is still essential that Man take (reasonable) control of his own ascriptions, of his self-definition and of his designs.

This means, again, that he must determine a measure for himself: that he must strive against both the threat of scientism and of ideology. For Man has always tried to draw an image of his future perfection – as individual apotheosis or as in social utopia – and has repeatedly turned from this icon in horror, or in boredom. This shows that the human condition in which we describe our particular essence is in a sense not to be optimised. Such an optimisation threatens to dissolve our condition precisely because this condition is the essence of humanity. What would remain would be either gods or machines, and neither of these share in what makes us human – our warmth, our odour, our happiness and our pain.

This does not mean that we ought not work to change our essence, to alter that human condition that defines the space between the available and the unavailable, between happiness and pain, between god and beast. On the contrary, this is precisely our task. A task that is served both by

ethics and by science, not in separate worlds, but in a single one. For not only science learns when ethics learns, in that it measures its own actions against ethical standards; but ethics also learns when science does, in that it takes account of scientific states of affairs, as in the biological-empirical essence of humanity.