

## **Kant's Teleology and the Problems of Bioethics<sup>1</sup>**

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### **Abstract**

One of the issues with which bioethics is concerned is defining the limits of the organism's transformations by technology in order for humanity to avoid evil. Kant's teleological power of judgment enables us to identify an organism and it allows nature to be transformed only insofar as it affirms a moral subject acting on the basis of autonomy as reason. I propose a new way of utilizing Kantian philosophy in bioethical knowledge. I ask: can we make judgments about nature via the principle of purposiveness? In answering this question, I clarify the following points. The first is Kant's research into the foundations and reasons for using the teleological power of judgment. The second is the role of digital technology and how it complicates the use of the teleological power of judgment within the framework of bioethical knowledge. And the third is the preservation of the foundations for using the teleological power of judgment.

### **Keywords**

Technology, Organism, Autonomy of Reason, Morality

### **Introduction**

It is a feature of the contemporary world that people desire to prolong their lives and make them as comfortable and successful as possible, while minimizing pain and stress. To this

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end, individuals are willing to change the state of their own organism, and indeed that of others too. (Of course, earlier humanity was also aware of its own biological limitations and suffered from them. But today there is an unprecedented push to alter or overcome these characteristics.) The contemporary human being looks to scientific and technical progress as an instrument to ameliorate biological deficiencies. Attempts to correct the state of an organism via such means gives rise to moral problems. Many fear that such technical equipment might be used for evil and mercenary purposes, and that the regulation of human life by machines can lead to the violation of natural human rights (right to life, health care, nondiscrimination) and human dignity, and the triumph of injustice.<sup>2</sup>

Bioethics is an interdisciplinary field of knowledge about the moral behavior of man on account of his ability to learn and change the natural order. As Potter puts it, “Man’s survival may depend on ethics based on biological knowledge; hence Bioethics” (Potter 1971, p. 1). One of bioethics’ principal aims is to define the limits of technological transformation to human beings. Experts in bioethics try to understand how it is possible to protect human characteristics and ensure social justice in cases when technology is used to threaten life, provide natural/artificial reproduction, undertake plastic surgery, clone organisms or cells, conduct genetic experiments, etc. Specialists in bioethics endeavor to explain how we might avoid or at least minimize evil for humanity and establish what counts as evil in the context of technological research and transformation.

Many problems in bioethics are contentious, with no final decision or definitive answer to be found. Specialists in bioethics have to pay attention to sociocultural transformations and particularly our possibilities to improve organic processes and bodies by technical devices and means. As a result, specialists have to define what is evil and what is good in different particular cases (The Universal Declaration on the Human Genome and Human Rights, International Declaration on Human Genetic Data). Indeed, one can find and deploy different philosophical principles as a foundation for bioethics.<sup>3</sup>

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<sup>2</sup> The Universal Declaration on Bioethics and Human Rights (2005) constitutes “the conceptual reflection on the relation between bioethics, science and technology and refers to human rights, human dignity, ethics and justice while taking the environment into account” (Henk and Jean 2009, pp. 62-63).

<sup>3</sup> Some appeal to Teilhard de Chardin (e.g. see Potter 1971, pp. 30-41), while others appeal to the work of Emmanuel Levinas (e.g. Zylinska draws on Levinas in seeking to understand the results of genetics; see Zylinska 2009, pp. 144-145).

In considering the potential grounds for bioethical knowledge, the philosophy of Immanuel Kant remains underexplored. While some commentators have sought to connect Kant's thought with bioethics, the existing approaches are limited. Let us briefly summarize them. In the first approach, researchers consider the problem of understanding human rights and dignity in contemporary medicine and point to the need to address the Kantian concepts of human rights and dignity.<sup>4</sup> In this approach, researchers explore the problem of the use of technology in the contemporary world. Central to this approach is an understanding that technology is a tool that can help a person to preserve their dignity, while prohibiting those technical innovations that do not coincide with the ends of morality (Shell 2008, p. 347).

The second approach examines the problem of preserving patient autonomy in modern medicine and tries to explain the difference between the Kantian understanding of autonomy and the bioethical understanding of autonomy. This approach defends the importance of autonomy as liberty (Jennings 2017, p. 85). I believe that this approach does not sufficiently acknowledge the problem of autonomy as reason or "obedience to self-imposed law" in bioethics. Later, I will explicate this problem and why it ought to be addressed.<sup>5</sup>

I propose a new way of utilizing Kantian philosophy in bioethical knowledge. I ask: how can we judge nature in the contemporary world? Can we make judgments about nature via the principle of purposiveness? Such questions have been largely neglected to date, with many disciplines deeming them irrelevant. Yet, I believe such questions speak to one of the most pressing issues for bioethics, since the teleological power of judgment fulfills some crucial functions. It enables us to identify organisms and it allows nature to be transformed only insofar as it affirms a moral subject acting on the basis of autonomy as reason. In bioethics, the teleological power of judgment can be used to protect the ability to recognize an organism in the case of it being observed by digital technologies, and to avoid the potential loss of morality arising from a person becoming excessively oriented toward digitally altering an organism.

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<sup>4</sup> For more details see Donaldson 2017, pp. 841-845 and Rothhaar 2010, pp. 251-257.

<sup>5</sup> I prefer to speak of autonomy as reason in Kant's sense to solve the problems of bioethics. See O'Neill 2002. I want to make clear how a man cannot set purposes solely according to his reason when he follows the suggestions of technology.

Kant's view of organisms as teleological does not imply the leading role of technology in observing organisms and ensuring their transformation. Indeed, in this regard, the following points need to be clarified. First, we need to understand how Kant explains the foundations for using the teleological power of judgment and the reasons for using this power. Second, it is necessary to clarify the role of digital technology and how it complicates the use of the teleological power of judgment within the framework of bioethical knowledge. Third, it is crucial to understand why and how the foundations for using the teleological power of judgment can be preserved.

One can define several methods to investigate the teleological ability of judgment and its use in the contemporary world. To clarify the reasons for the use and foundations of the teleological ability of judgment, I refer to Kant's *Critique of the Power of Judgment*. In this work, Kant's understanding of organisms as natural purposes, and of a moral subject as an ultimate purpose of nature, is of fundamental importance for our purposes here. I turn to developments in the field of digital humanities to explain the difficulties in identifying organisms with the help of technology. Research on heteronomous human behavior via the concept of "desiring machines" allows us to explain the problem of preserving autonomy as reason amid a technocentric world.

### **1. The Reasons and Foundations behind the Teleological Power of Judgment in Kant's Philosophy**

I would like to now appeal to Kant's conception of teleology and set out why we should think about nature via the principle of purposiveness. What are the foundations of the teleological power of judgment? First, it is wrong to think that something can demonstrate real purposiveness in objective nature. Kant notes that the teleological ability of judgment appeals to the reflective power of judgment and is a subjective position, not an objective one. We cannot transfer the principle of purposiveness to nature as its law because nature cannot be determined through the concepts developed by theoretical reason (Kant 2000, p. 257).

Kant explains the necessity of the teleological power of judgment as a subjective principle in the framing of the antinomy (Kant 2000, pp. 258-259):

1. The thesis is: all generation of material things and their forms must be judged as possible in accordance with merely mechanical laws.

2. The antithesis is: some products of material nature cannot be judged as possible according to merely mechanical laws (judging them requires an entirely different law of causality, namely that of final causes).

There are different views on how Kant defines “mechanical”. McLaughlin supposes that mechanical is a combination and operation of parts which determine the whole, but are not determined by it (McLaughlin 1990, p. 153). Ginsborg describes the mechanical as the unaided action of physico-chemical forces which lead to the result (Ginsborg 2004, p. 42). To explain something mechanistically is to fix the combination and operation of the independent parts or moving forces and the result of this work.

The teleological power of judgment is necessary because it denies judging nature by way of merely mechanical laws. This means that mechanical judgment cannot be exclusive.<sup>6</sup> What could not be described only mechanistically? Kant thinks that the self-organization of organisms (growth, reproduction, and regeneration) is inexplicable merely in mechanistic terms. In this case, the organism is both the cause and effect of itself (natural purposes), meaning that there are effective causes which produce themselves by their activity in organisms and a whole determines its own parts. Thus, we can observe such processes as reproduction, growth, and regeneration via the teleological power of judgment.

Kant describes the teleological principle of judging as follows: “An organized product of nature is that in which everything is an end and reciprocally a means as well”. Quarfood offers an interpretation of this statement as follows: “The function of x in organism O is y if x is a part or a trait of O, x is a means to y, and y is one of O’s ends or a means of such an end” (Quarfood 2004, p. 152). I can illustrate this. For instance, the function of a tongue in organism O is speaking if tongue is a part of O, tongue is a means to speaking and speaking is one of O’s ends. In comparing this position with Kant’s statement, it becomes clear that this explanation only grasps Kant’s thought partially. Kant said that “everything is an end and reciprocally a means as well”. According to this thought, speaking is not merely the end of tongue, but a means for a tongue or a brain, because they may be developed in such a way. Thus, Kant claims that the teleological

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<sup>6</sup> For more details see Teufel 2011, p. 215.

power of judgment finds every part as a means and an end and a part's ability to develop itself and other parts in the frame of the whole.

As a subjective principle, the teleological power of judgment does not allow one to explain the organisms. In terms of the heuristic potential of the teleological power of judgment, Kant notes that it could restrict the application potential of mechanical laws. I think that it is vital to highlight another positive result. The teleological power of judgment is the instrument for an organism's identification. Quarfood supposes that this identification makes biological objects open to study. "The teleological identification of objects as functional units (natural purposes) demarcates a separate 'order of things' [...] [A] non-teleological consideration of such objects could only identify them as complexly built aggregates of matter".<sup>7</sup> Therefore, there are good reasons to apply the teleological power of judgment. It is a normative point of view, which restricts the mechanical view and prevents the mechanical explanation from being applied to all organisms. In addition, it is a way of identifying organisms among other natural and artificial products.

The possibility of using the teleological principle not objectively, but for the purposes of identification and restriction of mechanical laws, is determined by the two foundations of the teleological power of judgment. The first foundation is experience. As Kreines writes:

Kant thinks that living beings appear to be organized [...] [T]he fit between their parts is so great that those parts seem as if they must be present in order to fulfill coordinated purposes within the whole. Living beings thus present a case in which 'experience leads our power of judgment' to the concept of a *Naturzweck* (Kreines 2005, p. 284).

According to Kreines, this foundation allows for the concept of *Naturzweck*. However, he adds that "our experience 'exhibits' but nonetheless cannot 'prove' the existence of natural organized beings or *Naturzwecke*". Therefore, Kant's suggestion to use the teleological principle only seems to be useful for the explanation of organisms. Experience as the foundation is not sufficient to know the organisms like natural ends (*Naturzweck*). The experience merely leads reason to this concept and a man can presuppose the organisms like natural ends.

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<sup>7</sup> In order to prevent the illegitimate expansion of the use of the teleological ability of judgment, the author points to the following. Identification is a constitutive condition for biology and remains merely regulative in the framework of philosophical reflection. Quarfood 2006, pp. 743-744.

The second foundation of the teleological power of judgment is reason's capacity to think about natural purposes via the analogy with human, rational, purposive activity. Breitenbach supposes that the artefact analogy is not sufficient to illustrate the self-organizing character of organisms. She writes that we think about nature's self-organization as we think about our own ability to act rationally according to our purposes. This analogy does not allow us to explain organisms, because human reason transfers its intention to nature, and it is impossible to be certain of the real purposiveness in nature. However, this analogy has good implications for biology. As Breitenbach puts it, according to the Kantian approach, "we may thus understand the use of explicitly teleological language in the life sciences as a heuristic means of structuring projects and formulating questions in biology" (Breitenbach 2008, p. 46). Steigerwald also points to the analogy with human rational and purposive action. This analogy enables us to regard both normativity and spontaneity in organisms and as a result "identify organisms as natural objects with distinct capacities and as subject to unique laws or norms and forms of causality" (Steigerwald 2006, pp. 726-727). Both interpretations signal the limits to reason's analogy, because they do not help us explain organisms as ends of nature. The analogy may be merely a means for studying and identifying organisms among other natural and artificial products.

We can conclude that the analogy with human rational purposive activity is connected to experience, which "exhibits" the self-organization of the organism. In checking the data of experience, reason finds only one way to adequately judge organisms. It assumes that they are natural purposes and have normativity and spontaneity like a person (although unlike human actions, all processes in nature are conditioned). Nevertheless, experience cannot be an absolute foundation and prove this statement. Reason as the foundation of this concept could not prove real purposiveness in nature. As a result, nobody can be sure that organisms are natural purposes and explain them as such. By using the teleological power of judgment, humanity merely restricts the application of mechanical laws and identifies organisms in the process of their study.

According to Kant, the teleological ability of judgment has a heuristic sense and is also an instrument for solving ethical problems. Teleology is the method for establishing how the linkage between human reason and physical nature is possible. Kant writes about

the problem of the distinction between reason and physical nature in the *Critique of Practical Reason*:

The morally good as an object is something supersensible, so that nothing corresponding to it can be found in any sensible intuition; and judgment under laws of pure practical reason seems, therefore, to be subject to special difficulties having their source in this: that a law of freedom is to be applied to actions as events that take place in the sensible world and so, to this extent, belong to nature (Kant 1996, p. 195).

It is not obvious that nature is suitable for moral actions in it. According to Kant's *Critique of the Power of Judgment*, this problem admits of only one solution: moral actions determined by reason are possible in the physical world if a subject can judge organic processes via the principle of purposiveness.<sup>8</sup>

What does this mean for the ethical sphere, that is to say, what does it mean to judge organic processes via the principle of purposiveness? We need to clarify the connection between making judgments about organic processes and moral conduct. In ethics, we cannot be satisfied with thinking about organic processes only as purposes of nature. We should also think about the ultimate purpose of nature, about what is beyond to nature. Kant suggests that the teleological power of judgment leads to the statement that the ultimate purpose of nature is a moral subject. This means that a man is able to set purposes by himself "using nature as a means appropriate to the maxims of his free ends in general" (Kant 2000, p. 299). Nature also supports this human intention. "Nature still displays <...> a purposive effort at an education to make us receptive to higher ends than nature itself can afford" (Kant 2000, pp. 300-301). Therefore, Kant's conception furnishes the idea that it is important for a moral subject to think about the common intentions of nature and humanity. It consists in following the purposes of the moral subject.

As the instrument for the explanation of morality in nature, the teleological power of judgment could also be seen as protecting nature from unnecessary human interference. Kant does not suggest this directly. Nevertheless, he thinks that nature and culture have

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<sup>8</sup> However, this does not mean that Kant proved morality via natural laws. Human understanding of nature is not a source of morality. As Klemme writes: "Whereas Wolff makes the absolute necessity of the law depend upon the cognition of the natural order of ends, Kant takes the opposing path. For Kant there is no objective natural order of ends. Teleology is not a principle that constitutes natural objects. All natural ends are subjective ends that are based on our desires and inclinations. The source of moral necessity can only be pure reason" (Klemme 2019, p. 25).



certain boundaries. A moral subject as the final end is outside of nature. When a man gives to nature and to himself a relation to an end, he rejects these boundaries. This end is morality. It leads to the next conclusion. As the telos of nature, man can influence the organisms only if morality in nature has to be established. Morality is the limit of nature's transformation. So, the teleological power of judgment allows us to understand that nature is not against morality; man as the ultimate end of nature can have moral conduct in the natural order and change it only according to the ratio's law.

What can we say about the foundation of the teleological power of judgment in the context of ethics? Reason's ability to make an analogy with human rational purposive activity is developed in the ethical context. There is the comparison between natural purposes and human ends provided by reason in Kant's teleology. I can demonstrate this through two operations of reason. The first is the understanding of the unity of natural order and moral order. A man can think that natural order is similar to the human ability to act according to purposes. Compliance with purposes (self-organization in the frame of normativity) is a common principle of nature and humanity. The second operation is understanding the difference between the two orders. Organic processes and organisms are necessary parts of nature as a whole. "For there is nothing in nature (as a sensible being) the determining ground of which, itself found in nature, is not always in turn conditioned" (Kant 2000, p. 302). By contrast, a man must set purposes according to reason's law, which is necessary and independent from nature. The human capacity to set purposes only by way of reason is the autonomy of will, regarding the moral subject.<sup>9</sup> The ability to be independent and unconditioned is the cause of Kant's statement that a moral subject is the final end of nature.<sup>10</sup>

There are at least two reasons to use the teleological power of judgment, according to Kant. First, as noted previously, it restricts the mechanical approach and allows organisms to be identified. Second, it leads to the establishment of morality in the natural order. Furthermore, there are two foundations for the use of the teleological power of judgment. The first is experience through which we can presuppose an organism's self-

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<sup>9</sup> "Autonomy represents a principle of morality" (Klemme 2019, p. 27).

<sup>10</sup> "A final purpose requires no other purpose as the condition of its possibility – it is unconditioned. Only the moral law determining human beings to action is independent of the conditions of nature or unconditioned and thus qualifies human beings as final purposes" (Steigerwald 2006, p. 715).

organization. The second is the human ability to set purposes solely through reason (autonomy of will) and compare it with the natural order.

## **2. Difficulties in Using the Teleological Power of Judgment Today**

Kant's teleology can provide a good basis for bioethical knowledge. In bioethics, the identification of organisms is important in determining the state of an organism and choosing its treatment. It is necessary to delineate the limits of change in the natural order so as to avoid the loss or diminution of morality. It arises from the ethically uncontrolled correction of the imperfections of an organism (for example, by changing the human genome without moral restrictions). But can we think of nature via the principle of purposiveness in the contemporary world? Kant proposes two foundations for using the teleological power of judgment (experience through which we can presuppose an organism's self-organization and the ability of a person to set purposes according to free will). In order to discover whether it is possible to use the teleological power of judgment in the contemporary world, we need to clarify whether these two foundations are still relevant.

In my view, the two foundations of the teleological ability of judgment are destabilized by technology. The latter plays a major role, especially in biology and microbiology (genome change). In its functions, technology replaces human experience and questions the autonomy of reason. First, it is necessary to explain how technology replaces human experience.

The replacement of human experience is related to the functions of the technics that a person is unable to perform. One of the significant functions is that of observing the organisms, which human beings can do far better with the aid of technology than without it. When witnessing organs and biological processes, technology gives the most accurate results. As such, studying the organism with the help of digital devices makes it possible to detect impaired functionality, to monitor, control, and support the work of different organs and processes (the onset of pain, symptom pathologies, the processes involved in childbearing and childbirth, and so on).

There is a loss of the ability to presuppose the organism's self-organization in the process of digital monitoring. To explain this situation, it is necessary to refer to medical

practice. What happens in some departments of microbiology cannot be discussed here, because at this level (genetic transformation), while the technology can simulate processes, it is not the best witness, which prompts scientists to turn to the functions of bacteria, for example (CRISPR CAS 9). The loss of experience as a basis for the teleological power of judgment is particularly noticeable in the use of digital monitoring, where the technology observes the processes in organs, tissues, etc. and determines the state of the organism on that basis (data reading).

Why is it not possible for technology to capture an organism's self-organization? First, digital technology has its own logic of determination of the organism. This logic is one of digital code. Digital code is the basis for digital devices and, as Berry writes, code can be described as

the mechanism that operates upon and transforms symbolic data, whether by recombining it, performing arithmetic or binary calculation or moving data between different storage locations. As such code is operative and produces a result (sometimes after several sub-goals and tasks), often in an iterative process of loops and conditionals (Berry 2011, p. 52).

Digital code establishes a new order of things and processes via the recombination of data. This recombination of data is an important function in medicine. For instance, it allows a digital monitoring system (DMS) to define human health/illness after reading data.

The difficulties lie in how technology restricts the self-organizing of organisms.<sup>11</sup> As Kant supposes, we might expect from the organism what we might not expect from the

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<sup>11</sup> This is a vital point because many researchers do not pay attention to the problem of checking the creativity of the organism and only suppose that technology enhances the possibilities of an organism. Eugene Thacker, author of *Biomedica*, supposes that enhancing the possibilities of the organism allows us to save its biological state. He cites the computer design of biological processes as one of the innovative methods of improving the organism. According to him, computer technologies observe human bodies, offer their version of the best flow of organic processes, and compare computer models and human organisms. Thacker writes that the development of computer technologies, at the intersection between genetic and computer "codes" and their reflexion, "can facilitate a qualitatively different notion of the biological body – one that is technically enhanced, and yet still fully 'biological'". Yes, it is possible to agree with Thacker about saving the biological, if this simply means to be alive. However, if we look at the biological as organic, it is difficult to agree with him. Increasing the abilities of an organism does not mean saving the organism's specificity of functioning. See Thacker 2004, p. 6.

watch. There is the self-organization of the organism in growth, regeneration, and reproduction. In contrast, technology cannot presuppose that an organism has its own form of self-organization. For instance, DMS can determine destroyed organs, but it cannot represent the teleological transference of a function of a destroyed organ to (an)other organ(s). As such, an organism is determined as abnormal because one organ is not able to fulfill its function, but in reality (an)other organ(s) fulfill(s) this function or process. While the DMS can determine an infected organism, it cannot reveal the protective functions taking place (Martynova and Bugaev 2019, p. 132).

As technology replaces human beings, as it observes and determines organisms by itself, we lose the first foundation of the teleological power of judgment. We do not witness organisms by themselves and so we no longer expect that they have the ability to self-organize. Instead, technology witnesses and determines the state of the organism. Such a decision is not based on a presupposition of what may occur according to natural purposes. As a result, digital devices restrict the human ability to make judgments about organic processes as purposes of nature.

What about the autonomy of will as the foundation of the teleological power of judgment? Well, according to Kant, a man loses his autonomy when he is determined by nature. Nowadays, we might also speak of the weakness of a man who is determined by his feelings, fears, genes, and so on (nature in general). However, the problem is also man's determination by technology. In 1978, Langdon Winner argued that a man could not use technology as he pleases: "He must see to it that the appropriate operating procedures and techniques are followed and that all of the material conditions for operation are met". The author concludes that in the contemporary world, we have a "technological version of Kantian heteronomy – the governance of human activity by external rules or conditions" (Winner 1978, p. 198).

Digital technology's influence on the human inability to act autonomously is a key issue in contemporary philosophy. For instance, researchers point to the lack of autonomy in the use of digital code. As Bianco writes: "Work in computation and digital media is, in fact, a radically heterogeneous and a multimodally layered – read, not visible – set of practices, constraints, and codifications that operate below the level of user interaction" (Bianco 2012, p. 109). The problem lies in the difference between accessible interfaces and

inaccessible processes of technological functioning. We transfer some functions to technology and use the results of its functioning.

But I want to insist that we also need to consider the loss of human autonomy on account of desire, which is engendered and supported by digital machines. It was Deleuze and Guattari who introduced the concept of “desiring machines”. Indeed, it is not about technology per se, but what is *inside* technology (Deleuze and Guattari 2009, p. 106). They wrote that desiring machines produce desire and are “the ensemble composed of a full body that engineers, and men and tools engineered on it” (Deleuze and Guattari 2009, p. 111). Desiring machines thereby integrate separate elements and form the analog of the will of power. The crucial point here is that desiring machines could break down independent parts (Bogue 1989, p. 92).

In my view, the transformation of human bodies in medicine can be explained in a similar way. It is possible to say that computer technologies produce the human desire to transform the organism via digital devices. Technology’s ability to improve the state of the human organism is clearly very appealing to people, not least because some biological aspects of human beings do not allow individuals to do what they really want.<sup>12</sup> Humanity plans to correct some processes by way of technical devices because of the latter’s ability to provoke the desire to do so. And technological devices really can enhance and support organic processes. It is possible today to save and prolong life, to make it more comfortable and less painful, via genetic modification, the transplantation and preservation of organs and tissues, the creation of artificial organs and bionic prostheses, etc. As a result, we have an ensemble of bioengineering and engineered men and tools.

Technology, as an agent of desiring machines, breaks down the human ability to set purposes and leads beyond moral intentions and toward heteronomy. One can discern the loss of human autonomy when considering the discussion of morality. Patients and doctors first try to find an instrument to address biological imperfections and to enhance the organism, and only then think to ask whether its use is moral. For instance, is it moral to deploy genetic modification? Is it moral to transplant organs or perform plastic surgery? Such transformations of nature are necessary not because of any moral act taken as a single

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<sup>12</sup> For instance, a woman has to accept the loss of a child (embryo) if it is not viable. A person’s relatives have to accept his/her early death. Parents and teachers have to accept that a child is not able to learn the necessary material. Humanity wants to determine natural being and make it more “reasonable” and harmonize it with humanity’s purposes through technology.

condition, but rather because of technology's ability to change the human organism. People discuss their actions via moral positions after observing technology's possibilities and advantages. Morality is (sometimes) able to restrict the organism's transformations, but it is not the sole reason behind the use of biotechnology.

Appealing to the problem of heteronomy in the use of digital devices is in accordance with Kant's position in this regard. Heteronomy in both interpretations marks an inability for a person to be determined solely by one's own reason. This fact leads to the impossibility of using the teleological power of judgment. Today, there is a real risk that human autonomy will be replaced and subsumed by humanity's desire to be biologically upgraded, while the human ability to set purposes will be taken over by the machine's ability to change these purposes. As a result, we have lost the theoretical foundation for the teleological power of judgment.

In the contemporary world, technology functions like a mediator, redefining biological and social connections. Biological processes are problematic, because the logic of technology spreads to the organic sphere. The logic of a machine determines organic processes and does not allow us to grasp the self-organization of the organism. Therefore, we have lost the empirical foundation of the teleological power of judgment. This also problematizes moral and social connections. The desire to harness technology to correct biological imperfections replaces the human ability to act autonomously. In doing so, we lose the capacity to give purposes to our activity. As such, there is little evidence today of our ability to think about purposiveness in nature.

### **3. Relevance and Conditions in Using the Teleological Power of Judgment Today**

In my view, it is not in our interests to welcome all technical innovations that force us to reject the teleological power of judgment. We must understand the relevance of the teleological power of judgment in a new light. To this end, we need to understand what will be lost if we neglect the two key foundations of the teleological power of judgment. At the same time, we might ask: what do we set to gain by rejecting the teleological power of judgment?

First, if a person cannot use the teleological power of judgment, this leads to a restricted view of the organism in the field of medicine. Doctors would not be able to

identify organisms and make the right decisions about those organisms, which can lead to evil outcomes for humanity. This is evident in cases of an organism's regeneration (some organs and functions replace one another, or an organ's bad state is a condition of its regeneration), growth (some organs and functions can become stronger), and reproduction (some organs and functions of embryos can be late, or appear or transform during the organism's development). These processes are presupposed only via experience in which an individual can catch sight of an organism's self-organization and the ability of a person to act rationally according to their purposes.

Second, if human beings reject the teleological power of judgment, then morality is no longer a necessary part within the processes of nature's transformation. People's actions will only occur as a result of technology and its potential. In this case, autonomy as reason is impossible and man cannot transform nature as a moral subject. This will involve different ways of transforming nature (including ones that violate human rights and dignity) and negative or (at best) uncertain consequences for humanity. For example, doctors and patients decide to undertake plastic surgery, but they ignore the negative consequences for the organism. The government and citizens may agree with the general principle behind genetic modification, but it may be that the methods used are ignored and nobody is sure about the wider implications of this for human health. In all such examples, the use of technology and its potential is not always necessary, is not determined by morality, and may cause damage to the human being. Such damage may come about as a result of people's refusal to act according to their own reason. To be able to have a moral standing in the transformation of nature, individuals must have the ability to set purposes solely by way of reason, to be independent, and to be unconditioned.

How is it possible to save the foundations of the teleological power of judgment? The doctor's observation of the body's creativity must be the instrument of correction of medical conclusions, based on the device's witnessing. We cannot entirely trust technical devices, because they have their own logic. What they can do is couched in digital code. Technology cannot capture or presuppose the creative ability of organisms. Nowadays, only human beings have the capacity to presuppose the organism's creative ability and thereby utilize the teleological power of judgment. For in using the teleological power of judgment, we also need to protect the ability to set purposes and to act autonomously.

Autonomous behavior cannot be based on a technological logic, but it is possible to utilize technical innovations for moral ends.

### **Conclusion**

Humanity should not totally reject innovations on account of their ability to ignore the specificity of organisms and lead us away from the concept of natural purposes. Yet, it is vital that, as human beings, we are able to remain vigilant and to question the decisions (promises) of technology and to observe nature's law for ourselves. To this end, we can refuse technical innovations and their promises in order to salvage the two main foundations of the teleological power of judgment: namely the ability to presuppose an organism's self-organization, and the ability to set purposes through the use of reason. If we retain these foundations of the teleological power of judgment, we can avoid not only the risk of making wrong decisions in a medical setting, but also the loss of a moral context in the transformation of organisms. Thus, we can conclude that Kant's explanation of the reasons and foundations of the teleological power of judgment is a necessary and worthwhile area of consideration in the field of bioethical knowledge.

### **BIBLIOGRAPHY**

- Berry D. M. (2011), *The Philosophy of Software: Code and Mediation in the Digital Age*, Palgrave Macmillan, Basingstoke.
- Bianco J. (2012), "This Digital Humanities Which is Not One", in *Debates in the Digital Humanities*, ed. M. K. Gold, University of Minnesota Press, Minneapolis, pp. 96-112.
- Bogue R. (1989), *Deleuze and Guattari*, Routledge, London.
- Breitenbach A. (2008), "Two Views on Nature: A Solution to Kant's Antinomy of Mechanism and Teleology", *British Journal for the History of Philosophy* 16, no. 2, pp. 351-369.
- Deleuze G., and Guattari F. (2009), "Balance-Sheet Program for 'Desiring Machines'", in *Chaosology: Texts and Interviews 1972–1977*, by F. Guattari, ed. S. Lotringer,



- trans. D. L. Sweet, J. Becker, and T. Adkins, Semiotext(e), Cambridge, MA, pp. 90-115.
- Donaldson C. M. (2017), "Using Kantian Ethics in Medical Ethics Education", *Medical Science Educator* 27, no. 4, pp. 841-845.
- Ginsborg H. (2004), "Two Kinds of Mechanical Inexplicability in Kant and Aristotle", *Journal of the History of Philosophy* 42, pp. 33-65.
- Henk A. M. J. ten Have, and Jean, M. S. (eds) (2009), *The UNESCO Universal Declaration on Bioethics and Human Rights: Background, Principles and Application*, UNESCO Publishing.
- Jennings B. (2017), "Autonomy", in *The Oxford Handbook of Bioethics*, ed. B. Steinkock, Oxford University Press, Oxford, pp. 72-89.
- Kant I. (1996), "Critique of Practical Reason", in *Practical Philosophy*, by I. Kant, trans. and ed. M. Gregor, with an introduction by A. W. Wood, Cambridge University Press, Cambridge.
- Kant I. (2000), *Critique of the Power of Judgment*, ed. P. Guyer and E. Matthews, Cambridge University Press, Cambridge.
- Klemme H. F. (2019), "How is Moral Obligation Possible? Kant's Principle of Autonomy in Historical Context", in *The Emergence of Autonomy in Kant's Moral Philosophy*, ed. S. Bacin and O. Sensen, Cambridge University Press, Cambridge, pp. 10-28.
- Kreines J. (2005), "The Inexplicability of Kant's Naturzweck: Kant on Teleology, Explanation and Biology", *Archiv für Geschichte der Philosophie* 87, pp. 270-311.
- Martynova S. A., and Bugaev D. S. (2019), "Definition of Organic Processes via Digital Monitoring Systems", in *Lecture Notes in Computer Sciences*, ed. I. Rojas et al., Springer, Cham, pp. 128-135.
- McLaughlin P. (1990), *Kant's Critique of Teleology in Biological Explanation*, Edwin Mellen Press, Lewiston, NY.
- O'Neill O. (2002), *Autonomy and Trust in Bioethics*, Cambridge University Press, Cambridge.

- Potter V. R. (1971), *Bioethics: Bridge to the Future*, Prentice-Hall, New Jersey.
- Quarfood M. (2004), *Transcendental Idealism and the Organism*, Almqvist & Wiksell, Stockholm.
- Quarfood M. (2006), “Kant on Biological Teleology: Towards a Two-level Interpretation”, *Studies in History and Philosophy of Biological and Biomedical Sciences* 37, no. 4, pp. 735-747.
- Rothhaar M. (2010), “Human Dignity and Human Rights in Bioethics: The Kantian Approach”, *Medicine, Health Care and Philosophy* 13, no. 3, pp. 251-257.
- Shell S. M. (2008), “Kant’s Concept of Human Dignity as a Resource for Bioethics”, in *Human Dignity and Bioethics: Essays Commissioned by the President’s Council on Bioethics*, ed. A. Schulman, Washington, pp. 333-349.
- Steigerwald J. (2006), “Kant’s Concept of Natural Purpose and the Reflecting Power of Judgement”, *Studies in History and Philosophy of Science (Part C)* 37, pp. 712-734.
- Teufel T. (2011), “What is the Problem of Teleology in Kant’s Critique of the Teleological Power of Judgment?”, *SATS: Northern European Journal of Philosophy* 12, no. 2, pp. 198-236.
- Thacker E. (2004), *Biomedica*, University of Minnesota Press, Minneapolis.
- Winner L. (1978), *Autonomous Technology: Technics-out-of-Control as a Theme in Political Thought*, The MIT Press, Cambridge, MA.
- Zylinska J. (2009), *Bioethics in the Age of New Media*, The MIT Press, Cambridge, MA.

