

**ISMGE 2020****II International Scientific and Practical Conference "Individual and Society in the  
Modern Geopolitical Environment"****EDUCATION VIRTUALIZATION PROSPECTS IN PESSIMISTIC  
LIGHT OF TECHNOLOGICAL DETERMINISM BY JACQUES  
ELLUL**

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***Abstract***

The article discusses the phenomenon of "education virtualization", which is increasingly being proclaimed as an inevitable consequence of the transition to new technological order (and at the same time – as a catalyst for this process), in the context of the philosophy of technology by J. Ellul. Comparing his ideas with the thoughts of other anti-technicists and technicists, we confirm that this thinker has developed one of the most consistent and convincing versions of technological determinism, insisting that scientific and technological progress (*hereinafter - STP*) deprives humanity of the essence of freedom. Partially neutralizing the fatalism of J. Ellul, at the same time we agree with him that in modern civilization there are often "absurd and inflexible" attempts to take advantage of the opening technical opportunities without discussing the need for their use, the price and the consequences. Accordingly, concerning new technologies that reduce the teacher's involvement in the educational process, we emphasize the need for scientific discussions (involving the widest possible range of experts in the fields of philosophy of education, pedagogy, technical sciences, as well as the representatives of civil society) on whether to use this technical opportunity (and if so, to what extent and in what situation to do this). Thus, without denying the possibility of virtualization of the educational process, we assert the need to search for the "golden mean" that will not lead the learning process, and therefore the role of the teacher, to synchronous or asynchronous verification of the student's knowledge.

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**Keywords:** Anti-technicism, absurdity, philosophy of education, problems of technical progress, technicism.



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## 1. Introduction

"...what is happening today, in our world and our "modernity"... All my efforts are efforts to deal with this vast issue. They are the essence of its modest symptoms" (Derrida, 1998, p. 141).

Paraphrasing the words of one of the leading European philosophers of the late twentieth century in the epigraph, we clarify this intention to the field of modern education, primarily Russian (although, of course, we are aware that in the context of globalization, it is impossible to consider the educational system of any country in absolute isolation). Today, at the beginning of the third decade of the XXI century, we can not disagree with the following statement: the modern education "shows the trends towards the transition to distance education with all its positive and negative sides, especially concerning the lecture part of the educational process" (Shestakova, 2019, p. 24). Moreover, the digital educational technologies, often rated a priori as advanced pedagogical technologies, are in demand not only by universities – they are "used in management processes, the system of professional retraining of personnel, in the formation of self-discipline and leadership skills" (Alexandrova & Trushnikova, 2016, p. 117). This raises the phenomenon commonly referred to as "the virtualization of education".

## 2. Problem Statement

Realizing that there are different approaches to the definition of this concept (especially since the same situation applies to "virtual reality" as such), we agree with the authors Bokachev and Luckinova (2015) who interpret "virtuality" as "a situation in which a person's sense of being in it is artificially created" and characterize "virtual education" in this way (p. 16; Liksutov, 2014). It "suggests not only distant telecommunication training but also the process of interaction between subjects and objects of education, the specifics of which they determine themselves" (Bokachev & Luckinova, 2015, p. 15).

## 3. Research Questions

At the beginning of the article, the issue about the "positive and negative sides" of this process was already raised. We agree with the authors quoted above that, on the one hand, the latter gives students new opportunities and increases the effectiveness of training. On the other hand, it deprives students of the most important factor of mastering knowledge, skills and abilities, namely, "as 'live' communication with the teacher, whose role, in this case, begins to perform a computer program on a digital medium or in a network (online) mode" (Bokachev & Luckinova, 2015, p. 15). Concerning the first aspect, we can not disagree with the following statement of the representative of technical knowledge: "Virtualization tools can reduce financial costs in many areas of engineering, training, and commerce" (Liksutov, 2014, p. 28). Of course, this question is also in the field of philosophical reflection (also because the methodological function of this "science of the universal" about private scientific knowledge "has not been cancelled"), but more relevant is the philosophical understanding of the second aspect of "education virtualization".

#### 4. Purpose of the Study

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#### 5. Research Methods

In the first place, we use the comparative method, since we conduct a comparative-historical analysis of arguments, firstly, representatives of technicism and anti-technicism. And, secondly, within the latter – J. Ellul and the existentialists. The dialectical method is also used since we achieve the goal through explication and resolution of contradictions (first of all, between liberty and necessity to be connected with the STP).

#### 6. Findings

The research material is based on the ideas of the French respective philosopher Jacques Ellul (1912-1994), who in the Russian encyclopedic literature is positioned primarily as a philosopher and sociologist of technology, known for "anti-technological views". The essence of the latter is as follows: what most scientists assess as "social progress" is the inexorable enslavement of man by technology and the absorption of the individual by a mass consumer, increasingly regulated society (Malinkin, 2004). Thus, J. Ellul is a representative of anti-technicism, especially a pessimistic tradition that declares technology "and scientific and technical knowledge, in general, <...> a negative alternative to social and cultural values, and scientific and technical achievements are rejected as possible tools for enslaving man" (as cited in Titarenko et al., 2020). But to understand the essence of Ellul's version of this position, it is necessary to take into account the main features of technology at the present stage of its development: rationality, artefact, self-direction, growth on its basis, indivisibility, universality and, finally, autonomy (Nikolaeva et al., 2017). Having paid special attention to the latter concept and the closely related "self-direction" of technology, it is necessary to turn to the main works of J. Ellul. Already in "The Technology" (1962), it was recognized that the latter "became the fate of humanity", and a quarter of a century later, in a work with the significant title "The Technological bluff" (1988), he argued that this leads not to any particular technical catastrophes (even large-scale), but the catastrophe of humanity as such. This is possible to do because the technology, as indicated in the work "Betrayal of the West"

(1975), becomes for humanity "habitat in the fullest sense of the word", "a solid cocoon without gaps", in which we "live, feel, think, acquire experience". (Note 1). In other words, technology has become a "reality" without any definitions: ... (hereinafter – the Authors) there is no need for either meaning or value, it imposes itself simply by that it exists" (Ellul, 1986, p. 148). Starting from this, we point to the following paradox: on the one hand, he highly appreciates the scientific rationality (Note 2), which caused not only the survival of humanity and the organization of a series of STP but also the assertion of man as a proper person. More than that, J. Ellul criticizes the calls to "restrict oneself to common sense" as an ignorant attempt to lock oneself in "mediocre middle-class ignorance".

Accordingly, nothing is surprising in the following assessment given by a French thinker: "technical expansion – a model of rationality, severity, efficiency, accuracy – has nothing absurd in it" (Ellul, 1995, p. 268). Moreover, by asserting scientific rationality, a "monument" is erected against "absurdism", i.e., "the philosophy of the absurd". This contradictory term (since, according to the fair point of J. Ellul, these words "seemed to be incompatible") he refers to the mainstream appeared in French existentialism in the post-war years, proclaiming that: "life and all human activity or thought are absurd, ... (since – the Authors) there is no Being with which it would be possible to relate" (Ellul, 1995, p. 266). And, accordingly, there is no "fixity", i.e. a point of view that allows an objective assessment of certain events (Note 3). And, as the quintessence of such a "situation of absurdity", in which a person is thrown against his own will, we will cite the Ellul's statement of the fact that any attempt to escape from such an absurdity is "absurd", meaningless, and initially doomed to failure. Even this brief insight leads us to conclude that the term "absurdity" is being used by J. Ellul in the traditional philosophical sense of meaninglessness, uselessness, and the impossibility of relating to any absolute.

On the other hand, the French philosopher paradoxically notes that by the end of the 1970s it is the progress of technology lead the technically developed countries to a situation that made "man and society absurd in the philosophical sense" (Ellul, 1995, p. 280). In other words, "plunged into the absurd" people found themselves in situations that require appropriate behaviour. In particular, the emerging technical opportunities to do something are forcing society – without appropriate discussions about the need for it – to transform in such a way as to make the most of the opportunity. This, in turn, accelerates the development of the technosphere, making fundamentally achievable new options that are implemented "in the same absurd and inexorable way" (Ellul, 1995, p. 269). Since we see needs and interests as the driving forces of social development, Ellul's conclusion about human needs is particularly interesting: they can be formed "from a habit (for example, drinking chilled drinks) that lasts long enough" (Ellul, 1995, p. 270), and as a result, we have a "fairly natural need", almost indistinguishable from "dictated by our physiology". In this regard, it is impossible not to remember, at first, the words of J.-J. Rousseau that "the needs are rising not so much from a pressing need, but capricious desires." Secondly, the words of K. Marx about the private ownership based on the capital goods, in which each tries to "awaken in the other some new need (italicized by K. Marx – the Authors) to force him to make a new sacrifice, to put him in a new dependence, < ... > and thereby to lead to economic ruin" (Marx, 1974, p. 128).

Turning to the thesis that in the second half of the twentieth century, the situation of absurdity was generated by "the imperative of using the most modern technical means, which were not necessary" (Ellul, 1995, p. 270), from the examples that J. Ellul justifies and concretizes, the one related to the field

of telematics is especially important for us (Note 4). In the late 80s of the twentieth century, the thinker states, it is technically possible to broadcast almost day and night "information, performances, songs, conversations, interviews, movies, latest news, advice on health or cooking" (Ellul, 1995, p. 271). It would seem that we have a clear example of how STP leads to a more interesting and at the same time more productive leisure, however, J. Ellul categorically states that the average citizen gets into a "terrible mess". After all, on the one hand, the unquestionable imperative "what is technologically possible is necessary!", and on the other hand – the fact that in principle "it is impossible to find every day something real, beautiful, smart, new < ... > that is worth showing" (Ellul, 1995, p. 271). As a result, television and radio are "filled with nonsense": it is broadcast "no matter what, as long as it is new, and for this purpose, people are invited who do not have any qualities" (Ellul, 1995, p. 271), because the consumer "requires light", i.e. entertainment, not annoying content.

Thus, it can be concluded that, in criticizing the "culture of images" of a technically advanced civilization, J. Ellul becomes one of the critics of "mass society" as H. Marcuse, H. Ortega y Gasset, M. Heidegger (Note 5). But for us, it is more important that J. Ellul belonged to the tradition of anti-technicism, and more specifically – what he enriched it with. After all, it would seem that the thought of J.-J. Rousseau given above can be assessed as a "preliminary germ" reviewed by us the Ellul's reasoning. In other words, this "understanding" of the latter is acceptable: technology, "encouraging" the "capricious desires" and amplifying them, increases our "needs". To show the "dominant originality" of the developed by J. Ellul variant of anti-technicism, let's compare it with the variant inherent in such mainstream (mentioned above) as existentialism. Since, as we know, the philosophy of science and technology (Note 6) includes schools that are critical of the latter, we can talk about an existentialist (sometimes called existential-personalistic) version of reflection on science and technology, presented primarily by N.A. Berdyaev, G. Marcel, M. Heidegger, K. Jaspers, and to a certain extent H. Ortega y Gasset. The essence of the designated reflection, in our opinion, is most succinctly conveyed in the following words of a domestic expert Zarubin (2011): a great role for the civilization of the late twentieth century was played by "existentialism's warnings against reckless faith in science and technology, against the unscrupulousness of consciousness adapting to economic and social realities". Considering this in the context of existence as a way of human existence in the world ("being-in-the-world"), the essence of which is "the need to choose in each situation a particular line of behaviour" (Kanke, 2008, p. 297; Kanke et al., 2017), we make this conclusion concerning the philosophy of technology. For all their critical attitude to the latter (more precisely, to the absolutization of its role), the existentialists did not believe that "scientific and technical intelligence" (in the terminology of G. Marsel), despite all its anti-humanity, alienness and hostility to man, is capable of encroaching on a fundamental value – freedom. After all, the latter is so fundamental from ontology (Note 7) that no "abuse of technical intelligence" can impair the human ability to choose. If we look at this situation from the "other side", we can say that we are "condemned to freedom", and no one will "excuse" us from it – if we are not afraid of paradoxes! (Note 8).

This historical and philosophical excursion was undertaken to show at the given course as clearly as possible the idea by which J. Ellul enriched the philosophical reflection on technology: STP can deprive humanity of freedom! The consideration of this thesis starts from the "culture of images" of an

"absurd society" in which "there is no reflection, no choice, no possible discussion (it was italicized by the Authors)" (Ellul, 1995, p. 279). This may cause surprise: in fact, an important feature of the technically developed countries of the second half of the twentieth century was connected with the term "information society", which, it would seem, is incompatible with totalitarian silencing, restriction of any information. However, J. Ellul perceptively observes: as a result of the synergy of the impact on society, first, "exciting suggestive images" (primarily advertising), and, secondly, "crushing, destroying consciousness, and thus charming noise" (the latter term is used by the French thinker in two interrelated senses: literal and related to information), a member of such a society turns into "a person fascinated by the variety of images, the intensity of noise, the dispersion of information" (Ellul, 1995, p. 279). Moreover, "the excess of information threatens to turn into disinformation for a normal person" (Ellul, 1995, p. 280), in which the rational choice is called into question. This is due to the absurdity as the main characteristic of a modern human being: in conditions where there is no absolute (Note 9), only the existence of a person is real, which, however, "is unstable and unreliable, like water and sand. Everything is formless. This can be taken for freedom" (Ellul, 1995, p. 266).

However, the French philosopher notes that in this situation there is a "choice that does not need to be considered", which we can justifiably describe as a "simulacrum of freedom". But it may be objected that it is incorrect to contrast the existentialists, for whom freedom is existential of man, with J. Ellul, whose ideas were considered related to free choice as a rational skill, the result of "reasoning". As an objection, we point out that for us in these ideas, the dialectical understanding of freedom is especially important (in this case, we are talking about freedom of thought and its limiting intellectual norms, without which thought is "unstable, unreliable, formless" and, as a result, not free). The same dialectic is found in the French philosopher's ideas and more general description of freedom. Two "realities", "game" (read – dialectics) which "human existence" itself makes possible, he calls on the one hand "the field of freedom on which the "I" is grown", and on the other – "the totality of necessities"; moreover, freedom is "based" on necessity, and constantly "bumps" into it. Each of us, as J. Ellul says, although "enclosed in a network of determinations", but our very essence forces us to "dominate them, use them, and thus exercise our freedom" (Ellul, 1995, p. 282) (Note 10).

Concerning the question of technology, it should be noted that according to the fatalistic conclusion of the French philosopher, its "progress" and "universalization" first "thoroughly shook" and then "destroyed" the designated "dialectical game". Consequently, freedom itself was called into question (as remembering one of the poles of the dialectical pair in question); and this process took place on two levels. First, technology itself in the second half of the twentieth century "allows doing everything", is a "possibility" and at the same time something "universal and absolute". (Of course, J. Ellul cannot ignore many problems that cannot be solved within the existing technical level – for example, cancer. However, according to his foresighted remark, in modern society this type of situation is assessed as "abnormal", "scandalous", while previously it was perceived as natural). But how does this restrict freedom? Ellul's answer is categorical: what kind of freedom can we talk about in conditions when reality itself disappears? Indeed, the latter is "a synthesis of the possible and necessary, but there is no longer (in appearance, illusion, ...) any need" (Ellul, 1995, pp. 282-283). In other words, we are again faced with the dialectical complement of freedom by necessity. Secondly (and it should be mentioned - the main factor),

the French philosopher of technology says that since the latter "makes everything possible" (Note 11), it becomes "an absolute necessity". This idea may seem like a truism: who, at the time of writing this work, and even more today, will deny the need for both technology itself and its progress for humanity? However, the legacy of J. Ellul was analyzed to solve the educational problem outlined at the beginning of the article, because he was able to express the meaning that was hidden behind the apparent "absolute necessity" of technological progress. "There is no freedom with technology since freedom here consists simply of saying "Yes" or "No". And here... who will say "No" to space probes or genetic engineering?" (Ellul, 1995, p. 283). While agreeing with this idea, it should clarify it by this way: the "no" that is increasingly being said about, for example, cloning of organisms, is not the "no" of genetic engineering by itself, which was spoken of by J. Ellul. Indeed, today both biologists themselves and the "spiritual authorities" of society warn of the danger of certain research, even to the point of tabooing the latter. But the question of the need for STP has never been raised and is not being raised. In other words, when talking about "dangers, prices, etc., after the arguments are exhausted, a scientist or technician concludes the discussion with the phrase: "in any case, the progress (namely, technology, as the basis of any other – the Authors) can not be stopped" (Ellul, 1995, p. 283). Thus, the French philosopher of technology concludes, it is in this (and only in this!) the fact that the latter becomes "the cause of itself" implies "absolute determinism for a man (and not in his genes or his culture)" (Ellul, 1995, p. 283).

## 7. Conclusion

As we have shown, the anti-technicism of J. Ellul is one of the most consistent and well-founded variants of technological determinism as a methodological position underlying both anti-technicism and technicism (Note 12). Thus, the latter on the contrary way appreciate the thesis, which is the essence of designated species of determinism: technology is not neutral, a "will-less" tool in the hands of Homo sapiens, it is, as the technosphere as a whole, develops not by the interests of the individual, according to his own (autonomous) logic, the content of which does not depend on human (or just humans), but in varying degrees, the development of man determines (Babosov & Bernstein, 2020). In the "technicist group" this idea was logically examined by the American philosophical sociologist and economist T. Veblen in his concept of technocracy (Note 13). In the collection of articles "Engineers and the system of values" (1921), he proposed a utopian project of transferring power in society to representatives of this profession. Thus, the "Council of technical specialists" should replace the capitalists as a political elite, called by the American scientist as "captains of finance" and "the leisure class". Justifying this process, Veblen (2018) writes "about the sabotage by which those (the capitalists - the Authors) conduct business, about the deliberate reduction of efficiency that has become part of their daily work" (p. 12) (Note 14). Expressing solidarity with Veblen's critics of capitalism, at the same time we agree with the modern opinion of researcher Sorokina (1984), who calls the error of Veblen's assurance "in the spirit of primitive technicism": "the simple involvement of a person in technology, his employment in machine production automatically determines his psychology, interest in the best functioning of the industrial system" (p. 51). It is necessary for the following fundamental explanation. Of course, from "the top" of today, it can be made a convincing argument against technological determinism in both its optimistic and pessimistic contents. However, our methodological position assumes that any system of philosophy contains a part of

the truth, and at the same time, none of them is free from errors. Consequently, on the one side, we consider it possible to partially neutralize Ellul's fatalism by appealing to the interpretation of technology in the direction of organic projection (with the interpretation of not E. Kappa, but P.A. Florensky (Note 15), but this is the subject of a separate study (Note 16).

There may be other arguments against the developed technological determinism of J. Ellul. For example, we start from the paradoxical judgment of the famous Soviet philosopher Svasyan (2002), who called the irrationalist position not the antithesis of rationalism, but "rationalism inside out, a kind of inverted insides of a Cartesian functionary, who supplements the "Discussion about the method" with attacks of Sartre's "Nausea" (p. 380). Without getting into a discussion on this point, we will describe anti-technicism by analogy as "technicism inside out", and, respectively, address the French philosopher the inverted "inside out" argument of S.G. Sorokina. Specifically, we call the erroneous belief that "the simple involvement of a person in the STP automatically determines his psychology, depriving him of freedom of choice, making him an "absurd person".

However, on the other side, it is impossible not to recognize the part of true knowledge in the description of J. Ellul process that the emergence of technical possibilities of something often instead of debating the usefulness, necessity, acceptability of the latter give rise to "absurd and relentless" attempts to seize this opportunity at any cost despite the absurdity of the consequences. In other words, the "self-direction", "autonomy" of the latter, its "growth on its basis" (which destroyed the dialectic of necessity and freedom, depriving humanity of free choice), which the French philosopher claimed, should be evaluated today as a trend that has already influenced the course and results of the STP to a certain extent. And it is even more likely to manifest itself in the future. And J. Ellul, with his extraordinary foresight, noticed the emergence of this trend in the second half of the twentieth century and warned of its danger in the future.

With this in mind, we will finally return to the thesis designated as the main object of our criticism that new technologies allow reducing the degree of teacher presence in the educational process. In this regard, we believe that scientific discussions have been initiated (involving as wide a range of experts as possible in the fields of philosophy of education, pedagogy, technical sciences, and representatives of civil society) on whether and to what extent this technical opportunity should be used and in what situation. For example, in the specific conditions when this article is being written, "education virtualization" is a necessary tool for organizing the educational process in modern epidemiological conditions. Consequently, the technical methods and means of the designated process of virtualization are being improved. However, we are opposed to the prospect of mindless "virtualization of education" in other conditions. In other words, we consider categorical statements are that what technical solution should be used only because there is such a possibility, not as conditions for social progress, but as a movement towards a "society of the absurd".

#### Notes:

1. Consequently, such "Machine universe" makes nature "completely useless, submissive, secondary, insignificant" (Ellul, 1986, p. 147).



2. This concept is followed by one of the leading Russian philosophers of science, Lebedev (2008), in the meaning of the type of rationality inherent in scientific thinking, characterized by "striving for the maximum attainable certainty, accuracy, evidence, objective truth of rational knowledge" (p. 69).

3. J. Ellul himself, as an exponent of this philosophy, points to his countryman, Sartre (1999), thus interpreting the famous words from his play "Behind closed doors" "hell is other" (Specify their context: "So this is what it is, hell! Nobody would have thought it... Remember: the sulfur, grill, brazier... It's all nonsense. What the hell is a brazier: hell is Others". Since in an absurd world "there is neither Good nor Evil" and, consequently, morality, then relations between people are meaningless: "The gaze of others is unbearable" (Ellul, 1995, p. 266). But it seems appropriate to appeal to the figure of another French existentialist – A. Camus, who argued that "the meaning of human activity is ultimately reduced to serving the absurd, similar to the activity of the ancient mythical hero Sisyphus".

4. This term, derived from "telecommunications" and "informatics", refers to "a new scientific and technical discipline, the subject of which is methods and means of transmitting information over distances significantly exceeding the linear size of the area occupied by communication participants" (Norenkov & Trudonoshin, 1998). In other words, it is a branch of informatics that deals with telecommunications.

5. In this connection, we can relate the concept of "absurd man" of the first of these philosophers with, respectively, the concepts of "one-dimensional man", "mass man" and "Das MAN".

6. Considered as a direction in philosophy, taking into account the fact that the concept in question can be interpreted as a philosophical discipline.

7. For example, despite the differences in the interpretation of "nothing" by N.A. Berdyaev and J.-P. Sartre, both agree that it – as a principle of freedom – precedes man. And therefore, these representatives of both religious and atheistic varieties of existentialism, it seems, would agree with the following words of the German anarcho-individualist Stirner (1994), said "on behalf of" man: "I am nothing in the sense of emptiness: I am a creative nothing, that from which I myself, as the Creator, will create everything" (p. 9).

8. Here the following words of Jaspers (1991) are appropriate: man as a generic being discovers precisely in himself what "he does not find anywhere else in the world – something unknowable, unprovable,"... eluding all research science: freedom and what is associated with it" (p. 449).

9. Thus, the person is unable to relate himself with Being, ontologically "commit" his activities.

10. In other words, our "I" already represents itself (the necessity), but it must also become it (the possibility)" (Ellul, 1995, p. 282).

11. Of course, taking into account the above correction to the fact that this "omnipotence" of technology is largely a task, not a given.

12. This is an optimistic position that goes back to the philosophy of the Age of Enlightenment, which "was inclined to see technology and STP as the most important means of solving social problems and achieving the common good" (Grafsky, 2008, p. 525).

13. We can clarify: in this case, this term captures "the idea not only of production and technological but also of the political power of management and specialists" (Kravchenko, 2010, p. 64).

14. In other words, the "captains of finance" believe that "for reasons of business expediency, it is impossible to allow these (idle during unemployment as a phenomenon inherent in capitalism – the

Authors) factories and workers to start working – because then the profit of businessmen will be too small" (Veblen, 2018, p. 14).

15. This Russian philosopher and scientist-encyclopedist, such stating the position of his predecessor "the essence of Kappa's thought is to liken artificial works of technology to naturally grown organs" (Florensky, 2000, p. 402), supplements it as follows: "Tools are created by life in its depth, not on the surface of specialization, and in its depth each of us has potentially diverse organs that are not revealed in his body, and can, however, reveal them in technical projections" (Florensky, 2000, p. 421).

16. We can briefly outline our position: if we interpret technical artefacts as externalization (embodiment) of "potential multi-dimensional organs", which Florensky wrote about, then the inevitability of STP (in the terminology of J. Ellul – "the inability to tell the technology "No!") appears in a new light. Specifically, it turns from a fatalistic "sword of Damocles" into a process of revealing the human essence.

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