Responsibility in Technological Civilization
In Search of the Responsible Subject
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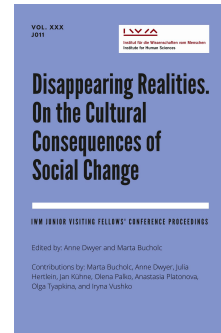
Abstract: *In our days responsibility has become the most problematic aspect of almost all human actions, including influencing nature, scientific prognostication, and simulation of the future. The problem of responsibility is a sign of the crisis which we experience now, resulting from the gap between activities and knowledge about their consequences. Human activity has a mediated and collective nature, which makes it difficult to name the subject of responsibility. Therefore, it is necessary to examine the subjective aspect of responsibility related to the technological activity and conditions in which such liability may be plausibly attributed to any subject. Analyzing the functions of multiform subjects of responsibility is prerequisite to our understanding the way in which scientific and technological progress shape the contemporary society.*

The problem of subjects of responsibility for the scientific and technological progress has existential significance today. Fuel, energy and ecological crises are all the result of a technogenic mentality. Our aggressive interference with the natural world has shown clearly that nature is not going to last forever, since its stock of resources is limited. If mankind wastes the riches and variety of organic life, the world around it will become featureless, dumb and aimless. First of all, this issue has enough courses to make us to think. Technological enterprises and their side effects touch many people who are not in direct contact with them who meddle in their life. Today technological activity has a mediated and collective character, so it is difficult to find a subject of responsibility. As a result, it is near impossible for persons to be aware of their degree of responsibility, because we cannot imagine all the consequences of our activities in the modern world. Obviously, new processes in the world, such as globalization, imply a question about global responsibility, the source of which is the fact that societies are losing their local status. All humankind's course of life receives a single direction in the conditions of globalized world.

The idea of responsibility for technological progress has become one of the most important among modern ethical issues. During the twentieth century, philosophers such as Martin Heidegger, Friedrich Jünger, Jose Ortega y Gasset and ?swald Spengler discovered that technology can enslave us, deprive us of our original existence, and alienate us from our essence. We are bound to admit that technology is not only a source of new ethical problems, but that it in fact changes what has heretofore been considered

the moral constant of human existence. The introduction of science and technology into biological processes (as is the case with genetic engineering) creates a perfectly new type of intervention in the world of nature . The problem of responsibility is indicative of the crisis which we experience now, which results from the gap between activities and knowledge about consequences of these activities. For a long time, the phenomenon of technology was not within the field of interest of philosophy. Technology was perceived as a morally neutral phenomenon. However, this changed after the invention of the nuclear bomb and nuclear weapon, as well as technogenic catastrophes in Chernobyl, Bhopal, and, finally, the 1970s fuel and energy crises in the West. The technological phobia (according to which technology is the main reason of the human alienation from nature) has existed throughout the history of technology. From the very beginning people had an ambivalent attitude towards technology. The Icarus myth tells us that, on the one hand, technology can liberate humans from gravity, but, on the other hand, it can bring about their destruction. In the Middle Ages inventors were accused of dealing with the devil. In the Modern Age, the technological phobia was expressed in the prohibition and destruction of technological inventions which could undermine the habitual way of life of the society.

In the twentieth century, technological phobia became the main idea in existential philosophy since technologies restrained and depersonalized human individuality as well as transformed all the world into a functional element of manufacture. Nevertheless, the negative side of technology is not the main question in this paper. The case can be made that technological civilization has shown the greatness of the human mind, invention, and will. Technology is a part of our fate which has its brighter and darker sides. Moreover, new problems we are facing now in connection with technological development have not been generated by the laws of technological evolution itself, but result instead from the rise of a new mentality. Therefore the question of morals seems to be decisive: how might we use our moral abilities to prevent the negative consequences of technological activity? If the technological evolution leads to the conflict of values and humans have to realize the inevitability of choice, it means that the choice implies responsibility.

The concept of responsibility

In my study of responsibility I must first understand what we mean by responsibility and the special nature of responsibility in relation to technological activity. Responsibility is of course not a new concept in the history of ethics. I intend to advance an approach according to which responsibility is a relational concept. which acquires meaning only in connection with other ethical categories such as free will or fault. This is the Aristotelian concept of responsibility as a virtue, which primarily means self-respect and pride. Aristotle did not use the word "responsibility," but he indicated certain key aspects of the idea; his ethics still remain one of the most important sources of reflection on technological responsibility.

Another milestone in the history of responsibility thinking is the philosophy of Immanuel Kant, in which the idea of responsibility is based on the premise of dignity of a human person as an autonomous being. Kant was the first philosopher who systematically used

the words "responsibility" and "responsible" in ethical considerations. As the main locus of responsibility he pictured mind as foundation of the absolute moral law. The consequences of actions do not have any relevance for responsibility in Kant's absolutist ethics. A person is only responsible for motives of actions accomplished by him or her.

When we use the word "responsibility," we must bear in mind that the term is multivalued, integrated and polysemous. Multivaluedness means that the word "responsibility" is used in many different scientific and humanitarian disciplines, which define content of responsibility in their boundaries. Integrated character of responsibility means that the concept refers to a relation engaging three heteronomous realms of Subject, Object and Instance. The polysemous feature of responsibility lies in the dilemmas raised by accurate assessment of the measure of individual and collective responsibility.

Responsibility means the ability of a person to act consciously and take into account the consequences of his or her actions. A person acting responsibly is capable of understanding the needs of other people. In addition, the sense of responsibility gives a person a sense of empowerment, a sense of possibility to influence the state of affairs and control over certain events in the external world. Therefore, the expression "to bear responsibility" means to be able to take into account the consequences of accomplished actions. For a philosopher such a definition is acceptable, since responsibility is an essential attitude of personality to society, to another person and to herself or himself. As a result, we can say that responsibility has intentional character. Of course, the idea of responsibility is closely linked to the idea of freedom, the latter being the condition of responsibility, in particular as autonomy. It is impossible to imagine a responsible action without freedom, understood not as an absence of compulsion, but as an ability to act independently.

Freedom is the one of fundamental ethical issues, which supposes the idea of moral choice and definition of its conditions. The measure of a human's freedom is correlative to the measure of her or his responsibility. In existential philosophy this responsibility spreads to all humanity. In contemporary philosophy the way in which the relation between freedom and responsibility is viewed is greatly changed. First of all, responsibility is no longer conceived as a form of necessity realized, but as an awareness of necessity in itself. Therefore, responsibility can be understood as a moral principle behind a given norm of behaviour. Such change in the status of responsibility was born form the progress of technological civilization, reflected in particular by the new ethics of responsibility advanced by Hans Jonas[1]. This idea of responsibility takes account the quantitative and qualitative changes in the nature of human activities, which now have global character. Jonas has come to the conclusion that traditional ethical ideas cannot solve problems created by the modern technology. In his opinion the heretofore ethic has lost its significance in the global world due to rapid changes of the pace of production oriented towards the needs of mass consumption. In previous ethics, responsibility was based on the ideas of a stable world and rational experience, so common sense and good will were

enough to pass from words to deeds. It was one of the conditions of responsibility, and that condition was not a problem for ethics since responsibility was embedded directly in social relations.

The new ethics of responsibility accounts for the effect of the global scale of human life and the prospect of a distant future, as well as the problem of human survival. Nevertheless, we do not know how the idea of responsibility, which has a function of differentiation and pluralism, can help us to integrate the modern society. Thus we have questions to wonder about, such as who could assume the responsibility for the negative consequences of technological activity? Who could be the subject of such responsibility? Apparently, all the responsibility for the consequences is borne by engineers and scientists. In general, we are talking about a subject being a person who creates technologies. Nonetheless, it is erroneous to hold them responsible for all the negative consequences especially for political or economic decisions and results of these decisions.

First of all, it must be admitted that in the modern world many subjects exist whose activity is of a complex and collective nature, so individual responsibility apparently could disappear. Nevertheless, that situation calls for attention: on the one hand, an individual becomes subordinate to global structures, but, on the other hand, the significance of individual activity gains extreme importance. Nowadays a mistake of individuals can lead to a global catastrophe. Philosophers such as Hans Jonas, Hans Lenk, G u nter Anders, and Gunter Ropo h l have tried to solve this problem. They have used the concept "collective subject of responsibility," which could be held responsible for all the negative consequences of technologic activity.

As far as scientific research is concerned, that problem was solved by the idea of distribution of responsibility among the members of a collective or a system.[2] Nevertheless, since there are many new types of subjects in the modern world, the problem of collective responsibility is not limited to the problem of the distribution of duties between the individual and collective subjects. So the problem of responsibility is not restricted to only one system or one collective. We can have a situation when actions of many people or many groups may perfectly match the norm, but their accumulation can be the cause of calculative and synergetic effects with negative consequences. These subjects can act independently or compete with each other. For example, the disappearance of forests in Europe is a result of the pollution of the environment, to which many subjects contributed, and nobody can be held solely and exclusively responsible for such consequences.

In contemporary research concepts as "corporate social responsibility" (CSR), "institutional responsibility" or "group responsibility" appear frequently. Actually, the concept of collective responsibility has caused many complicated questions: firstly, how collective can moral responsible be? What is the point of speaking about collective responsibility as a form of moral responsibility? Can collective have intentions? In other words, is a collective capable of being morally responsible for its actions as well as certain individuals? Secondly, how is possible to distinguish responsibility inside a collective? When we discuss the problem of collective responsibility we should acknowledge that its

main assumption is that all individuals in a collective are to be held responsible for other people's actions by tolerating, ignoring, or harboring them, even without actively collaborating in these actions.

The idea of collective responsibility presupposes that the sources of moral responsibility are social groups, such as corporations, scientific technological groups, etc. Nevertheless, this idea contradicts the idea of moral duty, which is always individual. According to Andrei Prokofiev, the concept of collective responsibility is contrary to the idea of social ethics of liberalism whose fundamental claim is that differences between individuals should be respected. Prokofiev correctly points out that the main controversy of collective responsibility, which some thinkers emphasize, has been based on the idea of methodological individualism. This idea supposes that all social processes can be explained by reference to a set of principles governing individual human behaviour. As the result, we are left with a situation in which in every researched case of collective activity we can reduce responsibility and find a guilty subject. Of course, such reduction of responsibility lets some people avoid it and other are forced to assume all responsibility. According to Prokofiev, if we acknowledge existence of the collective responsibility, we should acknowledge that the collective responsibility requires " collective intention ." The first feature of collective responsibility is cumulative responsibility of an aggregate of individuals as a whole.[3]

The idea of the moral status of a corporation has been advanced by Peter French.[4] In his research he rejected the anthropological prejudice of personality. As the result, he has proposed a new concept of a person. A person is a subject, who possesses certain characteristics such as ability to act intentionally and to bring about changes in his or her environment. Secondly, this kind of subject can correct its behavior based on the past experience both positive and negative. Thirdly, a person is able to take interests of other subjects into account. French argues that some collectives could satisfy the conditions which we use for persons in the moral sense. According to French, some corporations are quite formed moral agencies endowed with rights and obligations. As I have already mentioned, responsibility is intrinsically linked to the intention. If we consider that a feature such as intention can be attributed to certain groups (in which case we would qualify it as a collective intention), we can treat them as subjects of moral responsibility.

The collective intention realizes in "corporate internal decision-making structure" (CID). This structure (CID) has two elements: firstly, "an organizational or responsibility flow chart that delineates stations and levels within the corporate power structure." Secondly, "corporate decision recognition rule(s) usually embedded in something called corporation policy." [5]

Thus, we deal with corporate decisions but not with decisions of individuals. Corporations are collectives (or conglomerates) and their internal identity does not have strict connection with constant personal membership. French has analyzed the moral status of business corporations, which makes his research very important for the examination of responsibility for technological activity, since it is allows us to understand the mechanisms governing the functioning of such subjects. Corporations are just one category of collective subjects and it might be argued that such collective subjects as

Institutes of Technology Assessment, bioethical and ecological committees have a much greater importance. It may be expected of them to take upon themselves the new responsibility and reliably to act as experts in our society.

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Notes:

1. Hans Jonas, *The Imperative of Responsibility: In Search of Ethics for the Technological Age* (Chicago: University of Chicago Press, 1984); Jonas, *The Phenomenon of Life: Toward a Philosophical Biology* (New York: Harper & Row, 1966).

2. Hans Lenk, "Progress, Values, Responsibility," *Phil ? Thech* 2, no. 3-4 (1997):102–120.

3. A. V. Prokof'iev, "O vozmozhnostiakh reabilitatsii idei kollektivnoi otvetstvennosti," *Voprosy filosofii* 7 (2004):73–85.

4. Peter French, "The Corporation as a Moral Person," *American Philosophical Quarterly* 16, no. 3 (1979): 207–215.

5. Ibid.