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## HANS JONAS' ETHICS OF TECHNOLOGY: RISKS OF TECHNOLOGICAL SOCIETY

*Until the mid-20th century can be observed romantically (almost utopian) minded optimism, that accompanied technological progress. Technical innovations have been evaluated mainly in terms of their positive contribution, especially in the economic sphere. In the second half of this century, the technological optimism gradually faded and was replaced by skepticism and negativism. Hans Jonas is among the first philosophers who managed to discern and appreciate the high-risk potential of technological power. Jonas formulated an ethical theory that might be able to adequately respond to the perils of a technological society. This paper focuses on Jonas' understanding of the perils of technological practice within his concept of modern society which, due to the way it functions, threatens its own existence. Our aim is also to point out contemporary obstacles to applying his ethical solutions.*

**Keywords:** Hans Jonas, technology, society, risks, ethics.

### 1. The Nature of Modern Technology

Jonas develops his philosophical concept of technology and of technological civilization on the basis of distinguishing modern technology from pre-modern technology. He finds out that "major distinction is that modern technology is an enterprise and process, whereas earlier technology was a possession and a state" [1, p. 34]. While pre-modern technology exhibits "a given inventory of tools and procedures used to be fairly constant, tending toward a mutually adjusting, stable equilibrium of ends and means" [1, p. 34], modern technology applied in the production of new type of machinery in the second half of the 18<sup>th</sup> century "is an enterprise and not a possession, a process and not a state, a dynamic thrust and not a set of implements and skills" [1, p. 35]. From a formal point of view, Jonas understands modern technology as "an abstract whole of movement ... as a continuing collective enterprise, which advances by its own 'laws of motion'" [1, p. 34]. In terms of its contents, Jonas understands it as a force able to artificially widen the sphere of human being, to dictate new goals, needs and desires. If premodern technology concentrated on the saturation of pragmatically limited goals, i.e. on the adjustment of means to constant goals, then modern technology loses this purely instrumental character. For modern technology, "the relation of means to ends is not unilinear but circular ... technology thus adds to the very objectives of human desires, including objectives for technology itself" [1, p. 35].

This aspect leads directly to a progressive escalation of human needs, indirectly creating a hidden utopist dimension of modern technology, in which "technology as a grand venture tends to establish itself as the transcendent end" [1, p. 38].

According to Jonas, the development of technology has the tendency to grow independent and to present itself as an autonomous driving force, rendering a meaningful supervision of this force increasingly difficult. Whereas the pre-modern technology acted as a force in the service of society through which humans exerted their influence on nature, modern technology expresses itself like the very nature itself - it becomes unrestrained, uncontrollable, necessary force, ruling over humans, so that humans are becoming helpless against this technology. Human being turns from being the subject of technology into its object. Technological civilization thus by its immanent dynamics creates "the new realm of necessity", in which "the almighty we, or Man personified is, alas, an abstraction" [1, p. 42]. A new, pathological situation arises. In an unprecedented measure, both in terms of intensity as well as extensiveness, man affects nature through technology which he himself no longer fully masters. The result is that his endeavor threatens not only the reproduction of nature itself but such endeavor entails the threat of humanity's own demise. The loss of self-control rests not only in the inability to protect nature from humans but also to protect humans from themselves [2, pp. 141-142].

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The essence of modern technology thus rests in its alienation from humans. If we wanted to locate Jonas' concept in a wider philosophical discourse, we could point out its affinity with the views of M. Heidegger (Jonas' teacher), or J. Ellul. The world of technology, according to these thinkers, becomes a relatively autonomous sphere which, in reverse, actively influences its own makers, thus participating in the creation of their goals, expectations, demands and values. The sphere of modern technology has, so to speak, its own pace of life. According to Ellul, autonomy of technology means "that technology ultimately depends only on itself, it maps its own route ... autonomy is the very condition of technological development" [3, p. 125]. The representatives of the critical Frankfurt School offer a similar characterization of this phenomenon. Horkheimer and Adorno, for example, argue that "technical rationality today is the rationality of domination. It is the compulsive character of a society alienated from itself" [4, p. 95]. According to Marcuse, "the technological society is a system of domination which operates already in the concept and construction of techniques" [5, p. xlvi].

## 2. The Perils of Technological Society and their Complexity

Jonas sees the cause for technological society's becoming a threat to itself in the exaggerated success of Bacon's ideal, wherein human becomes the master over nature by means of technology based on science: "what we are experiencing today is the paradox of excessive success that threatens to turn into a catastrophe by destroying its own foundation in the natural world" [6, p. 828]. This success comes essentially in two kinds: economic and biological. The often emphasized economic side of the success rests in the growth of the overall factory production and consumption, alongside with the decrease of necessary human labor and the immediate increase of prosperity of the growing population. The second side of success is an exponential growth of the world's population. Both aspects are closely interconnected, both existing in a mutually conditioned relationship. Economic success, on the one hand, which in and of itself contributes to ecological crises by virtue of its unsustainable depletion of limited natural resources, entails the growth of world population; population growth, on the other hand, conversely influences economic development - not only does it expedite the development itself, it also robs economic development of its ability to slow down and stabilize itself. Population growth thus requires economic growth and economic growth causes further population expansion. The imperative of exponential growth, therefore, necessarily becomes the principle imperative of technological civilization.

The phenomenon of "success" explains the source of the dynamics of technological power and, at the same time, the

core of its crises, because an economic and population growth that is not quantitatively limited, is unsustainable within a finite natural system. It also reveals another essential aspect, a way by which the power of technology interiorized itself in society. Modern technology must not be perceived in isolation as an instrumental force. We should rather see it in a complexity, within the context of modern society. The scientific-technological progress constitutes a social force which dictates not only its own pace but also the dynamics and direction of where humanity is headed in the present. It is important to realize that the perils of technological civilization are no longer connected to its external actions and dangers (as it used to be in traditional societies), but they are its internal, immanent quality, they are implicitly connected with its own functioning. Even the central conflict of technological civilization - the conflict of humans versus nature - assumes a new shape. By virtue of its systematic, dramatic exertion of influence on nature, modern technological society does not actually emancipate itself from nature (in accordance with Bacon's ideal). On the contrary, it socializes nature, whereby ecological crisis actually becomes a social crisis. According to Beck, "at the end of the twentieth century, nature is neither given nor ascribed, but has instead become a historical product, the interior furnishings of the civilizational world, destroyed or endangered in the natural conditions of its reproduction. But that means that the destruction of nature, integrated into the universal circulation of industrial production, ceases to be 'mere' destruction of nature and becomes an integral component of the social, political and economic dynamic" [7, p. 80].

The civilizational perils, which are not expressions of a dysfunction but rather systemic consequences of technological development, impact all spheres of society. It is not merely about some dangers that are immediately linked to technological practice, such as the threat of a nuclear war, genetic engineering, artificial intelligence, or perils related to the ecological crises, such as global warming, pollution of water, soil, and air, or the damages to the Ozone layer. In the shape of externalities of technological progress, dangers are being massively produced also in the social sphere. Their effect is essentially long-term and latent in nature. The already mentioned population growth, for example, contains another indirect risk factor in the form of territorial concentration of population, as Lorenz points out: "the overcrowding of many people into a small space leads, not only indirectly through exhaustion of interhuman relationship, but also directly, to aggressive behavior" [8, p. 13]. We are dealing here with a whole complexity of risk factors in the area of social classes, employment and vocation, forms of family life, gender status, marriage, parenthood - risk factors that considerably weaken the structure of modern society and lead to dissolution of social ties and commonly held values because "morality and values ... are integral parts of human communities - they are necessarily (by definition) socially embodied, not individually based" [9, p. 104 and 11].

Jonas realized this complexity of risk factors and their potential consequences in the social sphere. He maintained that “in the pervasive mentalization of physical relationships it is a trans-nature of human making, but with this inherent paradox: that it threatens the obsolescence of man himself, as increasing automation ousts him from the places of work where he formerly proved his humanhood. And there is a further threat: its strain on nature herself may reach a breaking point” [10, p. 40]. In addition to pointing out the risk of mass unemployment, Jonas formulates a serious moral-philosophical question: whether human beings are indeed able to adjust to the dynamic and conditions of the technological age and whether we are able to constructively manage the phenomenon of “shock from the future” (Toffler). This is not just an individual problem (e.g. in the form of an “existential despair of the modern man who tries to find his way toward creating a relationship with the world” [11, p. 192]), but primarily a social and political problem concerning whether or not we are able, as society, to adjust our social and political institutions to the dynamic and conditions of the technological age.

### 3. Ethics for a Technological Civilization

Jonas warns that modern technology has changed the very nature of human action. Therefore,

“the changed nature of human action calls for a change in ethics as well ... modern technology has introduced actions of such novel scale, objects, and consequences that the framework of former ethics can no longer contain them” [1, p. 1, 6]. The implicit presupposition of the former type of ethical thinking was the notion that the essence of human being and his fundamental situation is essentially unchangeable and untouched by technological practice. Due to the limited power of human action, moral norms were oriented toward immediate relationships among people [12]. Immediate criteria were at our disposal when we dealt with the question of right action. It remained linked with actions behind which it could clearly identify their original agent (source). In its former calculations, ethics did not have to take into account the global conditions of human society, its remote future, or the very existence of humanity. On top of that, traditional ethics could well remain strictly anthropocentric because human action did not threaten the natural order of being, including the very human nature itself.

The changed context of human action relativizes these presuppositions. Technological praxis ceases to be neutral in ethical sense because its consequence constitutes an existential threat for the whole humanity. The impact of technological activities surpasses by far the closed circle of temporal and spatial immediacy. Formerly irrelevant factors, such as: one-sidedness and irreversibility of the effects of technological practice constituting causal relations, the spatial impact and time

duration of which are often unknown; the cumulative effect of the technological transformation of the world that continues to overcome the immediate circumstances of each performing act - these need to be included in our current ethical deliberation. A strict anthropocentric orientation is no longer tenable. New ethics requires a holistic dimension based on “the reconciliation between our presumptuous special status as humans and the universe as a whole, which is the source of our life” [6, p. 826].

Without negating any previous ethics, Jonas formulates an ethical theory the normative principle of which is responsibility towards future generations as ontological care for sustaining life, guided by the vision of highest evil. There is a new categorical imperative at its core: “act so that the effects of your action are compatible with the permanence of genuine human life” [2, p. 11]. Jonas did not stop with the formulation of new ethics but devoted himself to examine the possibility of its application in practice. The power that would be capable to assume responsibility over the dynamic of technology, according Jonas, must arise from the society itself. Since the power of modern technology is not a singular power of an individual but rather a collective power of the society, the ethical imperative should assume the form of a political solution.

### 4. An Open Question – Responsibility or Moral Hazard?

The relevance of Jonas’ theory will during the course of time depend primarily on whether or not humanity continues to threaten its own survival. The continuity of an exponential growth, despite economic crisis, the continuity of global pollution of natural environment, and the continuing expansion of the power of technology substantiate positive answer to the question. Contemporary research, too, confirms that “the warnings that we received in 1972 ... are becoming increasingly more worrisome as reality seems to be following closely the curves that the ... scenario had generated” [13, p. 3]. If a threat continues to be our unsurpassed context, a new question arises: what are the current possibilities of applying Jonas’ principle of responsibility in practice? The situation seems to be more critical from this perspective than Jonas himself may have anticipated because politics, which should have been the subject of new responsibility, has been losing its position and power under the condition of global capitalism and post-industrial society.

As Beck shows so convincingly, future is no longer decided in parliaments but directly in research labs and board of directors offices of corporations. Not just about future technological development but also estimates of detrimental side effects are being made under the pressure of investment decisions. Politics, which should be an institution of democratic and rational shaping of the will of the society, thus becomes an institution of legitimization the role of which is to legitimize the already pronounced conclusions as well as consequences

that politics itself did not cause and that it cannot avoid. As a result of this, “the non-responsibility of science corresponds to the implicit responsibility of the businesses and the mere responsibility for legitimation of politics. ‘Progress’ is social change institutionalized into a position of non-responsibility” [7, p. 214]. As a result, “the non-responsibility of science corresponds to the implicit responsibility of the businesses and the mere responsibility for legitimation of politics. ‘Progress’ is social change institutionalized into a position of non-responsibility” [7, p. 214].

There are other factors that promote limiting politics to legitimation. The precariousness of work, growth of structural unemployment and inequalities in distribution of wages (“inequalities of wealth that had supposedly disappeared are

close to regaining or even surpassing their historical highs” [14, p. 471]), force individual states to fight for survival in the form of raising their competitiveness abilities. The main priority of politics becomes economic policy making, which further expands the decision making abilities of large businesses. By doing this, politics itself is giving up its power and diminishes its maneuvering space for responsible action in the area of technological politics. A fateful faith in progress which requires no political-democratic legitimation and which even assumes the form of a “secular religion of modernity” [7, p. 214] becomes the main driving force of society. The contemporary global orientation of humanity thus reminds us more of a moral hazard with our future than a politics of responsibility.

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