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# **Response to the Unbound Prometheus: Hans Jonas' Affirmation of Responsibility in Technological Age of Unbridled and Uncontrolled Development**

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**Abstract:** The comprehensive and life-long task Hans Jonas sets himself is to find an ethics for the our age, the technological one; an approach he develops mainly in his book *The Imperative of Responsibility*. Jonas is certainly not against technology especially since technological innovations play positive roles in the field of health and medicine, communication and transport. While the technological potential itself is not the problem, the lack of ethical restrictions, the unbridled and uncontrolled development and increase of technological power is indeed a problem. The destructive potential of technology cannot be contained and Jonas metaphorically describes this ethical impasse as 'the finally unbound Prometheus.' The limitlessness and infiniteness of human dominion are expressions of our Promethean arrogance and immodesty. It is one thing that we have reached such degree of technical mastery that we can cultivate, manipulate, shape and change life up to the point that we irreversibly damage or even destroy it. It is another that there are no ethical restrictions that can protect us from effectuating our own demise as well as the destruction of the environment. It is in this context that Jonas underscores the importance of human responsibility.

The author holds that everyone can participate in the critique of technological utopianism and construction of a new world, more human, more clean. Whether through an artistic practice, through participation in events, by creating a website, or through discussions

and debates, everyone can add a stone to build our future world and to bring about change in the attitude of humanity. *The Imperative of Responsibility* is one of those stones which humanity needs today. It seems then that the ethics of Jonas by criticizing the enslavement of human person to our modern economy and comfort technology, addresses one of the biggest problems that humanity must address in the twenty-first century.

Keywords: Imperative of Responsibility, Ethics, Hans Jonas, Technology,

## Introduction

The elaboration of the ethics of responsibility by the German-born philosopher, Hans Jonas (1903-93), is based on the theory of evolution and the unitary conception of life; there is continuity between the phenomenon of consciousness and that of biological life, the former evolving from the latter as was suggested by Pierre Teilhard de Chardin, thus opposing the Cartesian dualism between body and mind. This blurs the distinction between human life and other forms of life. This means that either the human person does not have a sense of direction and end goal in life or other forms of life share along with the human person the kingdom of ends. Obviously Jonas opts for the second alternative. Jonas' unitary and teleological approach to life may well suggest that we are responsible for all life. However Jonas lays emphasis on our responsibility to the future of humanity. This raises three important questions: (1) How does Jonas maintain a balance between his claim of indistinctiveness of all forms of human life and his call for responsibility towards the future of humanity? (2) If our responsibility is towards the future of humanity, how does Jonas' ethics of responsibility be still directed towards the present generation who suffer inequality of technological utopianism? (3) As Jonas speaks of alleviating global inequality, should our ethical discourse on responsibility rise above political frontiers and aim at global community, which however is not possible without a certain measure of technological utopia?

## 1. Ethics for the Technological Age

The comprehensive and life-long task Hans Jonas sets himself is to find an ethics for the technological age; an approach he develops mainly in his book *The Imperative of Responsibility*. Jonas is certainly not against technology especially since technological innovations play positive roles in the field of health and medicine, communication and transport.<sup>1</sup> While the technological potential itself is not the problem, the lack of ethical restrictions, the unbridled and uncontrolled development and increase of technological power is indeed a problem. The destructive potential of technology cannot be contained and Jonas metaphorically describes this ethical impasse as ‘the finally unbound Prometheus.’<sup>2</sup> The limitlessness and infiniteness of human dominion are expressions of our Promethean arrogance and immodesty.<sup>3</sup> It is one thing that we have reached such degree of technical mastery that we can cultivate, manipulate, shape and change life up to the point that we irreversibly damage or even destroy it.<sup>4</sup> It is another that there are no ethical restrictions that can protect us from effectuating our own demise as well as the destruction of the environment. It is in this context that Jonas underscores the importance of human responsibility.

For Jonas, acting responsibly entails that one guarantees the future existence of life on earth. Jonas criticizes the idea of the total sufficiency of scientific discourses to exhaust the meaning of the world, especially that of life. In the first pages of *The Imperative of Responsibility*, Jonas advises us to remain open to the idea that natural science does not reveal the whole truth about nature, metaphysics can then supplement the inadequacy of pure sciences unless rationality is determined solely by the criteria of positive science.

## 2. Jonas' Critique of Cartesian Dualism

But to defend his position, the German philosopher must first question the merits of Cartesian dualism, which opposes the possibility of final causes outside the sphere of mind. We shall try to see to what extent it is possible to challenge the famous dualism historically operated by Descartes, and what drives Jonas to rely on a scientific theory which nevertheless is situated in one of the two poles of this divide between *res extensa* and *res cōgitans*.

This distinction between two distinct orders of reality (extended substance/thinking substance) has an advantage in science: it serves to distinguish one realm of reality completely determinable in terms of size, shape and movement, from another corresponding to the human mind. While the former can be treated in mathematics, physics, chemistry and biology, the latter is the domain par excellence of investigation available to the humanities including philosophy. This is a practical model that allows science to decipher the mathematical language of nature and of being interested only in the elucidation of the mechanisms at work behind the phenomena. By definition, modern science opposes teleological explanations: "The cornerstone of the scientific method is the postulate that nature is objective. In other words, the *systematic* denial that 'true' knowledge can be got at by interpreting phenomena in terms of final causes – that is to say, of 'purpose'."<sup>5</sup>

Jonas thinks that this dualism may be helpful to make a distinction between subjective and objective properties. This clear distinction allows natural sciences to study physical objects and explain them objectively. "The scientific advantage of dualism was, at its briefest, that the new mathematical ideal of natural knowledge was best served by, and indeed required, the clear-cut division between two realms which left science to deal with a pure *res extensa*, untainted with the nonmathematical characters of being."<sup>6</sup>

But this dualism has resulted in a radical separation of the human person from other beings. Human person alone has a soul; animals just like robots operating only according to the laws of matter. "The animal automata, though entirely determined by the rules of matter, are yet so constructed that their functioning suggests to the human onlooker an inwardness analogous to his own *without their possessing any such inwardness.*"<sup>7</sup> In other words, animals are merely bodies, totally deprived of any consciousness even in a very limited sense. And yet if we give them a soul, it is because we analyze their behavior with misleading expressions such as joy and sorrow, according to the causal relationships that exist only in the human person, between his thoughts and physical manifestations. Cartesian dualism thus leads to a separation of consciousness that only the human person possesses from body that both animals and humans. Human person then occupies a special place in the living world: he is the only conscious being, he is the only one who can set his end goals and act accordingly.

This ontological position leads to a curious division of nature: the conscious human person on the one side and the rest of the biosphere subjected to mechanical laws of nature. "We would have to say that with the evolutionary appearance of subjectivity an entirely new, heterogeneous principle has entered nature or come forth in it; and there would be a radical (not just a gradual) difference between the creatures that partake of 'consciousness' (then, in degrees) and those who do not; and even within the partakers themselves, between those of their activities which are subject to consciousness (or partially so) and the much broader range of activities that are not."<sup>8</sup> This leads to a double opposition: between the human person and other living beings and within the human person himself, between what is subject to the laws of nature and what is part of his end goal.

### **3. Consciousness and Continuous Evolution**

If Jonas chooses Darwin as his starting point, it is precisely because he considers the theory of evolution not only opposes

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but also surpasses Cartesian dualism: “evolutionism undid Descartes’ work more effectively than any metaphysical critique had managed to do.”<sup>9</sup> From the dualistic perspective, the human person has a special place in the world: he differs from the rest of life. With Darwin’s theory of evolution, the human person one species among many other in the same process of evolution; all living beings descend from the same origin and are subject to the same natural selection. Continuity characterizes the evolution of life. “The *continuity* of descent now established between man and the animal world made it impossible any longer to regard his mind, and mental phenomena as such, as the abrupt ingression of an ontologically foreign principle at just this point of the total flow.”<sup>10</sup> Jonas concludes that it is no longer possible to deny the presence of consciousness in the rest of the living beings. Consciousness does not introduce discontinuity in evolution. It is present in animals in varied degrees. The highest degree of consciousness is certainly in humans. Thus based on Darwin’s theory of evolution Jonas defends a continuity between humans and other living being and this continuity is reflected in degrees of consciousness as suggested by Leibniz.

If consciousness appeared in the process of evolution it is to ensure human survival. It is obvious that consciousness is an essential condition of our existence. In the words of Pascal in his *Pensées*, “Man is only a reed, the weakest in nature, but he is a thinking reed.” If consciousness is one of the ways to avoid death, it is not limited to that alone. As argued by Jonas, though it is a means to an end (survival) it has become an end in itself. “Beyond all instrumentality, it [consciousness] is for its own sake an end in itself... It is the subtle logic of life that it employs means which modify the end and themselves become part of it.”<sup>11</sup> Human life is necessarily a conscious life; even a sinking man, if he wishes to live, would wish to lead a conscious life and not merely on vegetative state. It is this possibility of consciousness compared to interiority found in some animals that gives full value to human life. The human person is the only one who

knows that he must die. And if we define life as coming to be, consciousness is what allows the being to self-reflect. We come to be and can interrogate this being. This is surely one of the most amazing features of life. Human person can observe life, ask questions about it and get to know it. And this capability has become an end in itself for man. Human person, therefore, is the only living being to be aware of his mortality. He knows that he may die at any moment that it is possible for him to die. There is another dimension to mortality, namely it is necessary for him to die. If the possibility of death refers primarily to the possibility of violent death, the necessity of death refers to the inevitable end of all life, the end point. Again, only the human person has the ability to be conscious of the finitude of all life, starting with his own. Only a human being knows that his/her life is not eternal.

#### **4. Existential Finitude and Meaning**

Moreover, it is perhaps through this consciousness of our inevitable existential finitude that we can give meaning to our lives. Jonas surely inherits this thought from the author of *Being and Time* and his own professor. "As to each one of us, the knowledge that we are here but briefly and a non-negotiable limit is set to our expected time may even be necessary as the incentive to number our days and make them count."<sup>12</sup> For Jonas, to know that our days are numbered is what enables us to count our days and to give them value. This thesis is reminiscent of Heidegger's Dasein and being-towards-death. If Husserl insists above all in his lessons for a phenomenology of internal time-consciousness, the temporality of past, the past horizon of all existence, Heidegger, focuses on the future horizon of Dasein. The latter is metaphysically defined as one that raises the question of Being. This forgotten question is nevertheless one of the essential modes of Dasein. This is what differentiates him from other beings. Because Dasein is related to Being in the ontological sense, he is ontically different from other beings; his mode of being is not the same. But by defining himself by this question, Dasein is then

defined by a anxiety because by questioning his own being, he realizes that it is temporally finite. And it is in this anxiety that Dasein opens himself up to possibilities and it is by becoming conscious of his existential finitude (that is to say, as a structure of his existence) that Dasein is able to lead an authentic life. His awareness of his finitude therefore allows him to get closer to himself and to lead an authentic way, that is to say, his consciousness of the temporality of being and the horizon of finitude that characterizes all existence. However Jonas thinks that the idea of anxiety in Heidegger is very much centred on the subjectivity of Dasein. If Dasein is anxious about his death, it is just an “abstract mortality.” One of the imperatives of thought, for Jonas, is to consider the statement “I am hungry.” But the anxiety of which Heidegger speaks does not concern food and physical needs. “Somehow German philosophy with its idealistic tradition was too high-minded to take this into account.”<sup>13</sup>

What Jonas criticizes here is the legacy of metaphysical dualism that grows into a mutual alienation between two parts of one whole. According to him, philosophy, since Cartesian dualism (extension/thought), has never dealt with the whole and has instead concentrated on subjectivity. Heidegger’s analysis of Dasein is no exception to this. Dasein’s care is never the real concern for his survival, but for the ultimate finitude of his existence. To use Jonas’ terminology, Dasein cares only about the necessity of his death, but not about the possibility of his death: Heidegger has not integrated human organism in his conception of the human person; his understanding of the human person does not care about the needs of the body. However, the bodily needs precede the ultimate concern of finitude. Millions of human beings care about their survival through proper nourishment. But from the standpoint of consciousness, survival becomes a true concern when the threat of non-being is strongly felt. In this sense he is in agreement with Heidegger’s interpretation of the importance of taking into account the ultimate finitude of existence.



## 5. Feeling and Being Responsible

All manifestations of consciousness – whether artistic, technical, ethical or political – form part of the purpose of human life. It is his conscious aspect that makes human life important and in this sense the human person occupies a special place among other living beings. Human life is distinguished from all other forms of life as it can be conscious of itself. Thus Jonas does not undermine the dignity of human consciousness, but he believes that human consciousness is twofold. If it can elevate the human person to a unique status, it can also weaken him in the spirit, nobility and fate meet. The human person is not only a sentient being: he can think, form concepts and raise questions. This is the intrinsic nobility of the mind. This is what makes the human person unique. But in the process of evolution, the human consciousness was originally meant to be a means of survival, which later became an end in itself. Jonas sees this instrumental use of mind at the service of body as weakening the human person because of some of its consequences. It is precisely for the pleasure of the body that the human person becomes ruthlessly consumerist. And if the mind at the service of the body leads to adverse consequences both for environment and humanity, the mind of man become most voracious. This voracity can be fatal to humanity in the longer run. But human life is too valuable to let voracity devour it. Besides his voracious mind, human person has also the ability to be responsible. We must therefore ensure the presence of humanity on earth in the indefinite future. This requires an affirmation of a universal principle as that of Jonas' injunction that "never must the existence or the essence of man as a whole be made a stake in the hazards of action."<sup>14</sup> Jonas underscores this principle repeatedly: "act so that the effects of your action are compatible with the permanence of genuine human life"<sup>15</sup>

For Jonas, feeling responsible precedes being responsible: it is only from the moment we feel responsible for something that we act responsibly. With regard to our responsibility to future

generations, the problem is precisely that they do not live in the present. We are not directly affected by the long-term problems caused by massive and excessive use of techno-scientific products that would a-priori affect the successive generations. How then can we feel responsible for our actions that affect only the future generations? It is important for Jonas that the ethics of responsibility must be adopted by the political sphere. It is indeed for the political class to preserve the possibility of a future humanity. And Jonas believes that the responsibility should not remain at the feeling level but must instead be founded: Rationally founded responsibility to future generations is necessary so that political leaders are convinced of such an obligation and act accordingly. This is because the ethics of responsibility must permeate the practice that must first be justified.

However, the feeling of responsibility comes before the theoretical legitimization. This is undoubtedly because Jonas has felt responsible for the future generations that he strives to found his thinking on a theoretical framework. But Jonas is obviously not the first philosopher to emphasize the importance of feeling. As he himself states, “moral philosophers, have always recognized that feeling must supplement reason so that the objectively good can exert a force on our will; in other words, that morality, which is meant to have command over the emotions, requires an emotion of its own to do so.”<sup>16</sup> This feeling is determined differently by different philosophers. For example, it is *eros* in Plato, *eudaimonia* in Aristotle, fear of the Lord in Judaism, charity in Christianity, *amor dei intellectualis* in Spinoza, reverence in Kant, interest in Kierkegaard, and lust of the will in Nietzsche. But Jonas’ understanding of feeling is clearly distinguishable from all these.

For Plato, *eros* is a desire for timeless good: the idea of Good. For this orientation towards the eternal the human person as a finite being tries to become eternal, to partake in immortality. “The imperishable invites participation by the perishable and elicits in

it the desire thereto.”<sup>17</sup> The object of *eros* transcends the human person and allows him to rise towards eternity. Thus the human desire is motivated by eternity. Similarly, in Christian morality, it is the promise of the eternal life that ultimately motivates goodness. Jonas thus concludes that it is an object that motivates moral action, not our mind prompting us to act morally. He thus challenges Kant for whom “*duty is the necessity of an action from respect for the law.*”<sup>18</sup> What drives respect in Kant is the moral law itself, that is act in such a way that your action can be willed to be a universal law. That is a subjective point of view, from respect for the moral law that the human person must act reasonably.

For Jonas, what gives rise to moral behaviour is outside of human consciousness. However he opposes platonic and Christian understanding of morality in the sense that what affects our feelings driving us to act morally and responsibly is not so much the eternal life as the perishable. “The object of responsibility is emphatically perishable qua perishable.”<sup>19</sup> In this sense we can speak of the horizontal orientation of Jonas’ ethics as opposed to the vertical orientation of ethics in Plato and Christianity. This is precarious, for it is subject to the possibility of non-being, which should motivate both feeling of responsibility and responsible moral action.

Faced with a poor person who asks us some money to ensure his/her survival, we have the ability to feel for his/her precarious position and give him/her money or at least a little warmth or a caring look. Such a feeling is the responsibility. The poor people are the most vulnerable as they are shrouded with uncertainty: hundreds of homeless people die every year of natural calamity alone. They are therefore subject more than others to the possibility of non-being, of death. We, as individuals with certain material comforts and financial power can help these and thus enable them to continue to exist. We can be overwhelmed by a sense of responsibility towards them. But another possibility lies

in indifference; we rather remain unaffected by the poverty and the fragility of others.

The question of responsibility lies in feeling responsible. There is a greater possibility of indifference to the future generations since they do not evoke any feeling in us. But Jonas defends the idea of responsibility for others to come. The first requirement of the ethics of future is to get an idea of long-term effects of our technoscience, including possible negative effects. Faced with a grim scenario about the future existence of human persons, we have to fear for humanity: we must fear the idea that humanity can disappear because of it. We have to fear the loss of the idea of human person. But how to be moved by an imagination of something that does not exist yet like the disappearance of humanity or that which does not concern us, at least immediately like the question of future humanity? Jonas responds by saying that “the creatively imagined *malum* has to take over the role of the experienced *malum*, and this imagination does not arise on its own but must be intentionally induced. Therefore the anticipatory conjuring up of this imagination becomes itself the first, as it were introductory, duty of ethics we are speaking about.”<sup>20</sup>

This fear however is not pathological, rather a kind of spiritual attitude to adopt. This implies a realization that humanity is worthy of existence. But fear does not seem to be the key drive of ethics of Jonas. Although the heuristics of fear is essential, especially to discover the ethical principles that underlie the ethics of responsibility, it seems that the feeling which guides the responsibility is primarily a positive feeling. It is the feeling of love for what is, whether humans or other species of evolution. It seems that it is by assigning value to what is we are then more likely to feel concerned about the loss of this being. It is recognizing the value of human person that we can then try to justify the existence of human life as long as possible.

The feeling of responsibility is a natural inclination of man who responds to the affirmation of being, the “yes” to being. The sense of responsibility then is the conscious expression of “yes,” an affirmation of being. Being responsible is the intentionality of the human person, but that intention is a response to a call. Humans namely not only say ‘yes’ to existence because they are blindly concerned with keeping on living, but can themselves set their own continued existence as their end.<sup>21</sup> In human beings, intentionality is not mere actuality, but transformed into potentiality.

## 6. Fostering Human Freedom

This theme of the call and response to it is reminiscent of Emmanuel Levinas’ ethics. For Levinas, the entry into ethics is mediated by the other (*autrui*). He imagines a relation to the other in which “neither possession nor the unity of number nor the unity of concepts link me to the Stranger [*l’Etranger*], the stranger who disturbs the being at home with oneself [*le chez soi*].”<sup>22</sup> In this encounter, the face of the other challenges me and gives me a command: “This infinity, stronger than murder, already resists us in his face, is his face, is the *primordial* expression, is the first word: ‘you shall not commit murder’.”<sup>23</sup>

It is important to see the commonality between the two thinkers: the ethical attitude is an attitude that answers a call. Jonas however differs from Levinas because he analyzes the sense of responsibility itself as coming from an affirmation of being. Responsibility for the future of humanity is rooted in the metaphysical intuition of “yes” to all life. Feel responsible for humanity, is to feel what is expressed in the phenomenon of life, “a deep desire to be”<sup>24</sup> and the uniqueness of human person as capable of responsibility.

The reason why Jonas focuses on humanity is because he claims that humans are the only beings capable of ethical thinking. Only they can then follow an ethical imperative of any kind.

This is due to their freedom and ability to choose amongst different alternatives; they participate in “the human sphere of chosen ends where willing is not simply a creature of the given end, but rather the end – as my own – is a creature of willing.”<sup>25</sup> Because the human will is free, it can pursue both good and bad, and as part of the moral order humans are able to act moral as well as immoral. The free will cannot be forced to take what is good as its end, but it does recognize the existence of the good as a moral command, a duty. The freedom humans enjoy because of their developed intentionality creates duties on their side; while they are the only beings susceptible for the feeling of responsibility they are at the same time bound to it.

Even though human existence is worthy of our protection, it is not the ultimate object of our responsibility, but ‘only’ a necessary precondition for it. What should be guaranteed in the first place is the existence of responsibility itself. The possibility of there being responsibility in the world is bound to the existence of human beings; and therefore they ought to exist so that responsibility exists.<sup>26</sup> Acting responsible is thus ensuring that responsibility can exist in the future. This self-reflexive definition is clearly reflected in the second paradigmatic example of responsibility; the politician. The responsibility of the politician resembles that of the parent in its characteristics of totality, continuity and being directed at the future. A politician acts responsible according to Jonas, if he ensures that his successors can act responsible as well. Next to his personal duties and commands he is under the total responsibility to leave open the conditions for responsibility. Responsibility being the ultimate object of our responsibility, our primary obligation is then not to let humans exist in the future. We are not responsible for future life *per se*, but only for future life in as far as it is a prerequisite for responsibility.<sup>27</sup>

Future generations of humankind must then not be conceived as right-bearers. Even though one could argue that future human beings might have a right to exist, or even to a certain kind of ex-

istence, Jonas explicitly states that this is not enough for a future-oriented ethics. His ethics namely wants to ensure that responsibility, and the human species as a prerequisite for its existence, will continue in the future. It therefore imposes on us the primary duty to continue humankind. The duty of the current generation is then essentially one-sided; it is not opposed by the rights of future generations. We should act as to ensure the continuation of mankind not because of their perceived rights, but of our obligation to let responsibility exist.

Preservation of future humanity can only be achieved by lowering our energy consumption, that is to say, by a lesser use of technology and therefore a lowering of our living conditions. We may think that this reduction in energy consumption appears gradually as evidence for the collective consciousness and that human persons with comfortable lifestyle would change. However, it is unlikely that every person feels responsible. Hence there is a need for a political solution to the technological utopia which would respect human person and environment. This means among other things the need for respecting the environment as part of economic decisions. Natural resources are not unlimited and hence we need to adopt a critical attitude towards our economic system dictating terms to the policy making in politics. Jonas invites us to reverse this through education.

Various organizations and associations already play, at present, an important role in sensitizing public opinion whether by denouncing grave injustices or by criticizing the disastrous consequences of our economic system to ecology. It seems then that the real catalyst of denouncing technological utopia is proper education. Faced with problems of poverty and pollution in the peak of growing economic globalization, it is necessary to provide an education that prepares people to live in harmony with one another and with environment. This calls for a reform in our current education system.

Besides participation in the formation of responsible global citizens, media people, also play a very important role in resisting environmental disaster caused by the ultra-liberal economic policies of our times.

## 7. Conclusion

To conclude, we hold that everyone can participate in the critique of technological utopianism and construction of a new world, more human, more clean. Whether through an artistic practice, through participation in events, by creating a website, or through discussions and debates, everyone can add a stone to build our future world and to bring about change in the attitude of humanity. *The Imperative of Responsibility* is one of those stones which humanity needs today. It seems then that the ethics of Jonas by criticizing the enslavement of human person to our modern economy and comfort technology, addresses one of the biggest problems that humanity must address in the twenty-first century.

## Notes

1. Hans Jonas, *The Imperative of Responsibility: In Search of an Ethics for the Technological Age*, (Chicago, University of Chicago Press, 1985), 31.
2. Ibid, 185.
3. Ibid., 143.
4. Alan Rubenstein, *Hans Jonas: A Study in Biology and Ethics*, 2009, 161.
5. Jacques Monod, *Chance and Necessity: An Essay on the Natural Philosophy of Modern Biology*, trans. Austryn Wainhouse (New York: Random House, 1972), 21.
6. Hans Jonas, *The Phenomenon of Life: Toward a Philosophical Biology* (Evanston: Northwestern University Press, 2001), 54.
7. Ibid., 55.
8. Ibid., 66.
9. Ibid., 57.
10. Ibidem.



11. Hans Jonas, "The Burden and Blessing of Mortality" (87-98), in Hans Jonas and Lawrence Vogel, *Mortality and Morality: A Search for the Good after Auschwitz* (Evanston: Northwestern University Press, 1996), 93.
12. Ibid., 98.
13. Hans Jonas, "Philosophy at the End of the Century: Retrospect and Prospect" (41-56), in Hans Jonas and Lawrence Vogel, *Mortality and Morality: A Search for the Good after Auschwitz* (Evanston: Northwestern University Press, 1996), 47.
14. Jonas, *The Imperative of Responsibility*, 37.
15. Ibid., 11. Jonas reformulates this same injunction in many different ways as follows: "Act so that the effects of your action are not destructive of the future possibility of such life"; or simply: "Do not compromise the conditions for an indefinite continuation of humanity on earth"; or, again turned positive: "In your present choices, include the future wholeness of Man among the objects of your will."
16. Ibid., 86.
17. Ibid., 87.
18. Immanuel Kant, *Groundwork for the Metaphysics of Morals*, trans. Allen W. Wood (New York: Yale University Press, 2002), 16.
19. Jonas, *The Imperative of Responsibility*, 88.
20. Ibid., 27.
21. Ibid., 139.
22. Emmanuel Levinas, *Totality and Infinity: An Essay on Exteriority*, trans. Alphonso Lingis (Dordrecht: Kluwer Academic Publishers), 39.
23. Ibid, 199.
24. See "De la gnose au Principe responsabilité. Un entretien avec Hans Jonas" (with Jean Greisch) in *Esprit*, May 1991.
25. Jonas, *The Imperative of Responsibility*, 235.
26. Ibid., 99.
27. Ibid., 43.