

Condorcet:

The Future Progress of the Human Mind

Marie Jean Antoine Nicolas Caritat, marquis de Condorcet (1743 1794), was an aristocrat, a mathematician, an official of the Academy of Sciences, and was a friend of Voltaire (1694-1778). In sum, a perfect example of an Enlightenment figure. Condorcet supported the revolution of 1789, but became a victim of the revolution during the Radical period. For a time he was able to hide, but soon after the completion of this Sketch for a Historical Picture of the Progress of the Human Mind, he was arrested. He killed himself rather than wait for execution.

No one has ever believed that the human mind could exhaust all the facts of nature, all the refinements of measuring and analyzing these facts, the inter relationship of objects, and all the possible combinations of ideas....

But because, as the number of facts known increases, man learns to classify them, to reduce them to more general terms; because the instruments and the methods of observation and exact measurement are at the same time reaching a new precision; . . . the truths whose discovery has cost the most effort, which at first could be grasped only by men capable of profound thought, are soon carried further and proved by methods that are no longer beyond the reach of ordinary intelligence. If the methods that lead to new combinations are exhausted, if their application to problems not yet solved requires labors that exceed the time or the capacity of scholars, soon more general methods, simpler means, come to open a new avenue for genius....

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Applying these general reflections to the different sciences, we shall give, for each, examples of their successive improvement that will leave no doubt as to the certainty of the future improvements we can expect. We shall indicate particularly the most likely and most imminent progress in those sciences that are now commonly believed to be almost exhausted. We shall point out how more universal education in each country, by giving more people the elementary knowledge that can inspire them with a taste for more advanced study and give them the capacity for making progress in it, can add to such hopes; how [these hopes] increase even more, if a more general prosperity permits a greater number of individuals to pursue studies, since at present, in the most enlightened countries, hardly a fiftieth part of those men to whom nature has given talent receive the education necessary to make use of their talents; and that,

therefore, the number of men destined to push back the frontiers of the sciences by their discoveries will grow in the same proportion [as universal education increases].

We shall show how this equality of education, and the equality that will arise between nations, will speed up the advances of those sciences whose progress depends on observations repeated in greater number over a larger area; all that mineralogy, botany, zoology, meteorology can be expected to gain thereby; and finally what an enormous disproportion exists, in these sciences, between the weakness of the means that nevertheless have led us to so many useful and important truths, and the great scope of the means men will in the future be able to deploy.

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If we now turn to the mechanical arts, we shall see that their progress can have no other limit than the reach of the scientific theories on which they depend; that the methods of these arts are capable of the same improvement, the same simplifications as methods in the sciences. Instruments, machines, looms will increasingly supplement the strength and skill of men; will augment at the same time the perfection and the precision of manufactures by lessening both the time and the labor needed to produce them. Then the obstacles that still impede this progress will disappear, and along with them accidents that will become preventable and unhealthy conditions in general, whether owing to work, or habits, or climate.

Then a smaller and smaller area of land will be able to produce commodities of greater use or higher value; wider enjoyment will be obtained with less outlay; the same manufacturing output will call for less expenditure of raw materials or will be more durable. For each kind of soil people will know how to choose, from among crops that satisfy the same kind of need, those crops that are most versatile, those that satisfy [the needs on a greater mass of users, requiring less labor and less real consumption. Thus, without any sacrifice, the methods of conservation and of economy in consumption will follow the progress of the art of producing the various commodities, preparing them and turning them into manufactures.

Thus not only will the same amount of land be able to feed more people; but each of them, with less labor, will be employed more productively and will be able to satisfy his needs better.

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But in this progress of industry and prosperity . . . each generation . . . is destined to fuller enjoyment; and hence, as a consequence of the physical constitution of the human species, to an increase of the population. Will there not come a time when . . .

the increase in population surpassing its means of subsistence, the result would necessarily be-if not a continuous decline in wellbeing and number of people, a truly retrograde movement-at least a kind of oscillation between good and bad? Would not such oscillations in societies that have reached this point be an everpresent cause of more or less periodic suffering? Would this not mark the limit beyond which all improvement would become impossible. . . ?

No one will fail to see how far removed from us this time is; but will we reach it one day? It is impossible to speak for or against an event that will occur only at a time when the human species will necessarily have acquired knowledge that we cannot even imagine. And who, in fact, would dare to predict what the art of converting the elements to our use may one day become?

But supposing a limit were reached, nothing terrible would happen, regarding either the happiness or the indefinite perfectibility of mankind. We must also suppose that before that time, the progress of reason will have gone hand in hand with progress in the arts and sciences; that the ridiculous prejudices of superstition will no longer cover morality with an austerity that corrupts and degrades it instead of purifying and elevating it. Men will know then that if they have obligations to beings who do not yet exist, these obligations do not consist in giving life, but in giving happiness. Their object is the general welfare of the human species, of the society in which people live, of the family to which they belong and not the puerile idea of filling the earth with useless and unhappy beings. The possible quantity of the means of subsistence could therefore have a limit, and consequently so could the attainable level of population, without resulting in the destruction . . . of part of the living.

Among the progress of the human mind that is most important for human happiness, we must count the entire destruction of the prejudices that have established inequality between the sexes, fatal even to the sex it favors. One would look in vain for reasons to justify it, by differences in physical constitution, intelligence, moral sensibility. This inequality has no other source but the abuse of power, and men have tried in vain to excuse it by sophisms.

We shall show how much the destruction of customs authorized by this prejudice, of the laws it has dictated, can contribute to the greater happiness of families, and to the spread of the domestic virtues, the first foundation of all other virtues. It will promote the progress of education, because [education] will be extended to both sexes more equally, and because education cannot become general, even among men, without the cooperation of mothers.

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All these causes of the improvement of the human species, all these means that assure it, will by their nature act continuously and acquire a constantly growing momentum.

We have explained the proofs of this . . .; we could therefore already conclude that the perfectibility of man is unlimited, even though, up to now, we have only supposed him endowed with the same natural faculties and organization. What then would be the certainty and extent of our hopes if we could believe that these natural faculties themselves and this organization are also susceptible of improvement? This is the last question remaining for us to examine.

The organic perfectibility or degeneration of races in plants and animals may be regarded as one of the general laws of nature.

This law extends to the human species; and certainly no one will doubt that progress in medical conservation [of life], in the use of healthier food and housing, a way of living that would develop strength through exercise without impairing it by excess, and finally the destruction of the two most active causes of degradation-misery and too great wealth-will prolong the extent of life and assure people more constant health as well as a more robust constitution. We feel that the progress of preventive medicine as a preservative, made more effective by the progress of reason and social order, will eventually banish communicable or contagious illnesses and those diseases in general that originate in climate, food, and the nature of work. It would not be difficult to prove that this hope should extend to almost all other diseases, whose more remote causes will eventually be recognized. Would it be absurd now to suppose that the improvement of the human race should be regarded as capable of unlimited progress? That a time will come when death would result only from extraordinary accidents or the more and more gradual wearing out of vitality, and that, finally, the duration of the average interval between birth and wearing out has itself no specific limit whatsoever? No doubt man will not become immortal, but cannot the span constantly increase between the moment he begins to live and the time when naturally, without illness or accident, he finds life a burden?

From Marie Jean Antoine Nicolas Caritat, marquis de Condorcet, *Esquisse d'un tableau historique des progrès de l'esprit humain* (Paris: Masson et Fils, 1822), pp. 27985, 29394, 3035.