The Rev. Thomas R. Malthus (1766-1834) began modern analysis of population in terms of "laws" - a classic Enlightenment approach. His arguments were directed against William Godwin (1756-1836) whose Enquiry Concerning Political Justice argued in favor of a more egalitarian society and economics in order to end poverty.

From Thomas Malthus. First Essay on Population (1798)

The following Essay owes its origin to a conversation with a friend, on the subject of Mr. Godwin's Essay, on avarice and profusion, in his Enquirer. The discussion, started the general question of the future improvement of society; and the Author at first sat down with an intention of merely stating his thoughts to his friend, upon paper, in a clearer manner than he thought he could do, in conversation. But as the subject opened upon him, some ideas occurred, which he did not recollect to have met with before; and as he conceived, that every, the least light, on a topic so generally interesting, might be received with candour, he determined to put his thoughts in a form for publication....

I think I may fairly make two postulata.

First, That food is necessary to the existence of man.

Secondly, That the passion between the sexes is necessary, and will remain nearly in its present state.

These two laws ever since we have had any knowledge of mankind, appear to have been fixed laws of our nature; and, as we have not hitherto seen any alteration in them, we have no right to conclude that they will ever cease to be what they now are, without an immediate act of power in that Being who first arranged the system of the universe; and for the advantage of his creatures, still executes, according to fixed laws, all its various operations.

I do not know that any writer has supposed that on this earth man will ultimately be able to live without food. But Mr. Godwin has conjectured that the passion between the sexes may in time be extinguished. As, however, he calls this part of his work, a deviation into the land of conjecture, I will not dwell longer upon it at present, than to say, that the best arguments for the perfectibility of man, are drawn from a contemplation of the great progress that he has already made from the savage state, and the difficulty of saying where he is to stop. But towards the extinction of the passion between the sexes, no progress whatever has hitherto been made. It appears to exist in as much force at present as it did two thousand, or four thousand years ago. There are individual
exceptions now as there always have been. But, as these exceptions do not appear to increase in number, it would surely be a very unphilosophical mode of arguing, to infer merely from the existence of an exception, that the exception would, in time, become the rule, and the rule the exception. Assuming then, my postulata as granted, I say, that the power of population is indefinitely greater than the power in the earth to produce subsistence for man.

**Population, when unchecked, increases in a geometrical ratio. Subsistence increases only in an arithmetical ratio. A slight acquaintance with numbers will shew the immensity of the first power in comparison of the second.**

By that law of our nature which makes food necessary to the life of man, the effects of these too unequal powers must be kept equal. This implies a strong and constantly operating check on population from the difficulty of subsistence. This difficulty must fall somewhere; and must necessarily be severely felt by a large portion of mankind.

Through the animal and vegetable kingdoms, nature has scattered the seeds of life abroad with the most profuse and liberal hand. She has been comparatively sparing in the room, and the nourishment necessary to rear them. The germs of existence contained in this spot of earth, with ample food, and ample room to expand in, would fill millions of worlds in the course of a few thousand years. Necessity, that imperious all pervading law of nature, restraints them within the prescribed bounds. The race of plants, and the race of animals shrink under this great restrictive law. And the race of man cannot, by any efforts of reason, escape from it. Among plants and animals its effects are waste of seed, sickness, and premature death. Among mankind, misery and vice. The former, misery, is an absolutely necessary consequence of it. Vice is a highly probable consequence, and we therefore see it abundantly prevail; but it ought not, perhaps, to be called an absolutely necessary consequence. The ordeal of virtue is to resist all temptation to evil.

This natural inequality of the two powers of population, and of production in the earth, and that great law of our nature which must constantly keep their effects equal, form the great difficulty that to me appears insurmountable in the way to the perfectibility of society. All other arguments are of slight and subordinate consideration in comparison of this. I see no way by which man can escape from the weight of this law which pervades all animated nature. No fancied equality, no agrarian regulations in their utmost extent, could remove the pressure of it even for a single century. And it appears, therefore, to be decisive against the possible existence of a society, all the members of which, should live in ease, happiness, and comparative leisure; and feel no anxiety about providing the means of subsistence for themselves and families.

Consequently, if the premises are just, the argument is conclusive against the perfectibility of the mass of mankind.

I have thus sketched the general outline of the argument; but I will examine it more particularly; and I think it will be found that experience, the true source and foundation of all knowledge, invariably confirms its truth....

No limits whatever are placed to the productions of the earth they may increase for ever and be greater than any assignable quantity; yet still the power of population being a power of a superior
order, the increase of the human species can only be kept commensurate to the increase of the means of subsistence, by the constant operation of the strong law of necessity acting as a check upon the greater power.

The effects of this check remain now to be considered.

Among plants and animals the view of the subject is simple. They are all impelled by a powerful instinct to the increase of their species; and this instinct is interrupted by no reasoning, or doubts about providing for their offspring. Wherever therefore there is liberty, the power of increase is exerted; and the superabundant effects are repressed afterwards by want of room and nourishment, which is common to animals and plants; and among animals, by becoming the prey of others.

The effects of this check on man are more complicated.

Impelled to the increase of his species by an equally powerful instinct, reason interrupts his career, and asks him whether he may not bring beings into the world, for whom he cannot provide the means of subsistence. In a state of equality, this would be the simple question. In the present state of society, other considerations occur. Will he not lower his rank in life? Will he not subject himself to greater difficulties than he at present feels? Will he not be obliged to labour harder? and if he has a large family, will his utmost exertions enable him to support them? May he not see his offspring in rags and misery, and clamouring for bread that he cannot give them? And may he not be reduced to the grating necessity of forfeiting his independence, and of being obliged to the sparing hand of charity for support?

These considerations are calculated to prevent, and certainly do prevent, a very great number in all civilized nations from pursuing the dictate of nature in an early attachment to one woman. And this restraint almost necessarily, though not absolutely so, produces vice. Yet in all societies, even those that are most vicious, the tendency to a virtuous attachment is so strong, that there is a constant effort towards an increase of population. This constant effort as constantly tends to subject the lower classes of the society to distress, and to prevent any great permanent amelioration of their condition.

The way in which these effects are produced seems to be this.

We will suppose the means of subsistence in any country just equal to the easy support of its inhabitants. The constant effort towards population, which is found to act even in the most vicious societies, increases the number of people before the means of subsistence are increased. The food therefore which before supported seven millions, must now be divided among seven millions and a half or eight millions.

The poor consequently must live much worse, and many of them be reduced to severe distress. The number of labourers also being above the proportion of the work in the market, the price of labour must tend toward a decrease; while the price of provisions would at the same time tend to rise. The labourer therefore must work harder to earn the same as he did before. During this season of distress, the discouragements to marriage, and the difficulty of rearing a family are so
great, that population is at a stand. In the mean time the cheapness of labour, the plenty of
labourers, and the necessity of an increased industry amongst them, encourage cultivators to
employ more labour upon their land; to turn up fresh soil, and to manure and improve more
completely what is already in tillage; till ultimately the means of subsistence become in the
same proportion to the population as at the period from which we set out. The situation of the
labourer being then again tolerably comfortable, the restraints to population are in some degree
loosened; and the same retrograde and progressive movements with respect to happiness are
repeated....

The theory, on which the truth of this position depends, appears to me so extremely clear; that I
feel at a loss to conjecture what part of it can be denied.

That population cannot increase without the means of subsistence, is a proposition so evident,
that it needs no illustration.

That population does invariably increase, where there are the means of subsistence, the history of
every people that have ever existed will abundantly prove.

And, that the superior power of population cannot be checked, without producing misery or vice,
the ample portion of these too bitter ingredients in the cup of human life, and the continuance of
the physical causes that seem to have produced them bear too convincing a testimony.

26-31, 37-38.