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7. Malthus and the Problem of Population

Abstract

One of the central beliefs of classical economic theory was that there is an inexorable tendency for population to press against the available natural resources, especially those providing the food supply. This doctrine, though not originating with him, was eloquently expressed by Thomas Robert Malthus (1766-1834) in an essay which first appeared in 1798. Malthus, a high-ranking graduate of Cambridge University, was a clergyman in the Church of England before he became a professor of history and political economy at the East India College, Haileybury, in 1805. This college had just been established by the British East India Company to train men for its service in Asia. Malthus, one of the first persons ever to hold a professorship in economics, continued in this post for the remainder of his life. [*excerpt*]

Keywords

Contemporary Civilization, Population, Natural Resources, Food Supply, Birth Rate, Industrial Revolution

Disciplines

Economic History | Economics | Growth and Development | History

Comments

This is a part of [Section XIV: The Industrial Revolution, Classical Economics, and Economic Liberalism](#). The [Contemporary Civilization](#) page lists all additional sections of *Ideas and Institutions of Western Man*, as well as the [Table of Contents](#) for both volumes.

More About Contemporary Civilization:

From 1947 through 1969, all first-year Gettysburg College students took a two-semester course called Contemporary Civilization. The course was developed at President Henry W.A. Hanson's request with the goal of "introducing the student to the backgrounds of contemporary social problems through the major concepts, ideals, hopes and motivations of western culture since the Middle Ages."

Gettysburg College professors from the history, philosophy, and religion departments developed a textbook for the course. The first edition, published in 1955, was called *An Introduction to Contemporary Civilization and Its Problems*. A second edition, retitled *Ideas and Institutions of Western Man*, was published in 1958 and 1960. It is this second edition that we include here. The copy we digitized is from the Gary T. Hawbaker '66 Collection and the marginalia are his.

Authors

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1848 John Stuart Mill
1874 John Elliot Cairnes

Principles of Political Economy
Some Leading Principles of
Political Economy Newly
Expounded

7. Malthus and the Problem of Population

One of the central beliefs of classical economic theory was that there is an inexorable tendency for population to press against the available natural resources, especially those providing the food supply. This doctrine, though not originating with him, was eloquently expressed by Thomas Robert Malthus (1766-1834) in an essay which first appeared in 1798. Malthus, a high-ranking graduate of Cambridge University, was a clergyman in the Church of England before he became a professor of history and political economy at the East India College, Haileybury, in 1805. This college had just been established by the British East India Company to train men for its service in Asia. Malthus, one of the first persons ever to hold a professorship in economics, continued in this post for the remainder of his life.

Malthus' father, a friend of Rousseau and Hume, was alive to the intellectual currents of his day. In a series of discussions with his son in the 1790's he defended the Enlightenment belief in progress, including the expression given it by Condorcet and others. The younger Malthus took issue with his father's optimism. He believed that men neither were nor ever would be reasonable enough to curb the growth of population and keep it within desirable bounds. Moreover, he was convinced that the supply of natural resources was limited, and that the increasingly intensive use of agricultural land would result eventually in less and less satisfactory returns from the additional effort put forth. Malthus had hit upon the principle of diminishing returns, which he regarded as one great and permanent stumbling block to the realization of human perfection so clearly envisaged by Condorcet. Whereas Malthus applied this principle to land, it is now recognized as applying ultimately to all other factors of production as well.

It is important to remember that Malthus' concern with an increasing population was based on solid fact. About the time the Industrial Revolution began, Europe's population, indeed that of the entire world, began increasing after several centuries of relative stability. While we cannot be certain that this increase was directly related to the industrialization of society, since it occurred also in areas largely untouched by that movement, we believe that it resulted from a decline in the death rate rather than from an increase in the birth rate. This decline can be attributed to such factors as improvements in public health measures and in the food supply. The following

Population
a shift toward the city and that it increases. (more from fall of death rate than birth rate).
2, 4, 6, 8, 10 — food production increasing then
2, 4, 8, 16, 36 — population the gap starts to widen. 20 types of checks.

table, giving figures in millions of persons, conveys some impression of world population growth during the last several hundred years:

	<u>1650</u>	<u>1750</u>	<u>1800</u>	<u>1900</u>	<u>1957</u>
Europe, including Russia	100	140	187	401	614.2
England and Wales		6.5	9	32.5	44.6
France			27	39	43.8
Germany			21	58	71.6
Russia			36	100	200.2
United States			5.3	76	171.2
Asia	330	479	600	937	1,491
World	545	728	906	1,608	2,728

Malthus' father was so impressed with the cogency of his son's arguments that he suggested they be incorporated into a book. An Essay on the Principles of Population, as it affects the future improvement of Society... appeared anonymously in 1798. Immediately it raised a storm of protest from those who felt that its general attitude of pessimism was unwarranted. Malthus believed that he was only being realistic and truly humane in counseling people to exercise restraint in propagating themselves. After several years of travel on the Continent, he published a greatly expanded revision of the essay in 1803, in which he went into much greater detail, added some statistical and other data, and was more moderate in his basic statements. But the argument went on, and he continued the work of revision, adding and amending until the sixth edition appeared in 1826. In the meantime, he wrote several pamphlets on current problems and published a major work on economic theory, in which he contributed significant ideas to the theory of rent and business cycles. In 1821, together with David Ricardo, James, Mill, John Ramsay McCulloch, and others, he founded the Political Economy Club, which provided him and his friends with an opportunity to meet regularly and discuss topics of mutual interest.

The Malthusian theory has continued to stimulate discussion and controversy. It has encouraged more careful study of demography than ever before. Since Malthus wrote, vast and fertile lands have been brought into cultivation in many parts of the world. Agricultural technology has greatly increased production and improvements in transportation have made it possible to transport food economically thousands of miles. At the same time, the birth rate in many industrialized nations, including the United States, is scarcely more than half of what it was when Malthus wrote, while the level of living is much higher.

Many of the questions which arise in connection with Malthus have yet to find definitive answers. Do his theories apply equally to Germany and China? Can the continuing industrialization of society some day give the lie to his predictions? Will science in the future nullify the principle of diminishing returns? What can widespread birth control do to world populations? Questions such as these should be kept in mind as the

following selection is read:

Statement of the Subject.

Ratios of the Increase of Population and Food.

In an inquiry concerning the improvement of society, the mode of conducting the subject which naturally presents itself, is --

1. To investigate the causes that have hitherto impeded the progress of mankind towards happiness; and,
2. To examine the probability of the total or partial removal of these causes in the future.

To enter fully into this question, and to enumerate all the causes that have hitherto influenced human improvement, would be much beyond the power of an individual. The principal object of the present essay is to examine the effects of one great cause intimately united with the very nature of man; which, though it has been constantly and powerfully operating since the commencement of society, has been little noticed by the writers who have treated this subject. The facts which establish the existence of this cause have, indeed, been repeatedly stated and acknowledged; but its natural and necessary effects have been almost totally overlooked; though probably among these effects may be reckoned a very considerable portion of that vice and misery, and of that unequal distribution of the bounties of nature, which it has been the unceasing object of the enlightened philanthropist in all ages to correct.

The cause to which I allude is the constant tendency in all animated life to increase beyond the nourishment prepared for it.

It is observed by Dr. Franklin, that there is no bound to the prolific nature of plants or animals but what is made by their crowding and interfering with each other's means of subsistence. Were the face of the earth, he says, vacant of other plants, it might be gradually sowed and overspread with one kind only, as, for instance, with fennel: and were it empty of other inhabitants, it might in a few ages be replenished from one nation only, as, for instance, with Englishmen.

This is incontrovertibly true. Throughout the animal and vegetable kingdoms Nature has scattered the seeds of life abroad with the most profuse and liberal hand: but has been comparatively sparing in the room and the nourishment necessary to rear them. The germs of existence contained in this earth, if they could freely develop themselves, would fill millions of worlds in the course of a few thousand years. Necessity, that imperious, all-pervading law of nature, restrains them within the prescribed bounds. The race of plants and the race of animals shrink under this great restrictive law; and man cannot by any efforts of reason escape from it.

In plants and irrational 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 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.

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 support. If he attend to this natural suggestion, the restriction too frequently produces vice. If he hear it not, the human race will be constantly endeavouring to increase beyond the means of subsistence. But as, by that law of our nature which makes food necessary to the life of man, population can never actually increase beyond the lowest nourishment capable of supporting it, a strong check on population, from the difficulty of acquiring food, must be constantly in operation. This difficulty must fall somewhere, and must necessarily be severely felt in some or other of the various forms of misery, or the fear of misery, by a large portion of mankind.

That population has this constant tendency to increase beyond the means of subsistence and that it is kept to its necessary level by these causes, will sufficiently appear from a review of the different states of society in which man has existed. But, before we proceed to this review, the subject will perhaps be seen in a clearer light, if we endeavour to ascertain what would be the natural increase of population, if left to exert itself with perfect freedom; and what might be expected to be the rate of increase in the productions of the earth, under the most favourable circumstances of human industry.

It will be allowed that no country has hitherto been known, where the manners were so pure and simple, and the means of subsistence so abundant, that no check whatever has existed to early marriages from the difficulty of providing for a family, and that no waste of the human species has been occasioned by vicious customs, by towns, by unhealthy occupations, or too severe labour. Consequently in no state that we have yet known, has the power of population been left to exert itself with perfect freedom.

Whether the law of marriage be instituted or not, the dictate of nature and virtue seems to be an early attachment to one woman; and where there were no impediments of any kind in the way of a union to which such an attachment would lead, and no causes of depopulation afterwards, the increase of the human species would be evidently much greater than any increase which has been hitherto known.

In the northern states of America, where the means of subsistence have been more ample, the manners of the people more pure, and the checks to early marriages fewer, than in any of the modern states of Europe, the population

has been found to double itself, for above a century and a half successively, in less than twenty-five years. Yet, even during these periods, in some of the towns, the deaths exceeded the births, a circumstance which clearly proves that, in those parts of the country which supplied this deficiency, the increase must have been much more rapid than the general average.

In the back settlements, where the sole employment is agriculture, and vicious customs and unwholesome occupations are little known, the population has been found to double itself in fifteen years. Even this extraordinary rate of increase is probably short of the utmost power of population. Very severe labour is requisite to clear a fresh country; such situations are not in general considered as particularly healthy; and the inhabitants, probably, are occasionally subject to the incursions of the Indians, which may destroy some lives, or at any rate diminish the fruits of industry.

According to a table of Euler, calculated on a mortality of 1 in 36, if the births be to the deaths in the proportion of 3 to 1, the period of doubling will be only twelve years and four-fifths. And this proportion is not only a possible supposition, but has actually occurred for short periods in more countries than one.

Sir William Petty supposes a doubling possible in so short a time as ten years.

But, to be perfectly sure that we are far within the truth, we will take the slowest of these rates of increase, a rate in which all concurring testimonies agree, and which has been repeatedly ascertained to be from procreation only.

It may safely be pronounced, therefore, that population, when unchecked, goes on doubling itself every twenty-five years, or increases in a geometrical ratio.

The rate according to which the productions of the earth may be supposed to increase, will not be so easy to determine. Of this, however, we may be perfectly certain, that the ratio of their increase in a limited territory must be of a totally different nature from the ratio of the increase of population. A thousand millions are just as easily doubled every twenty-five years by the power of population as a thousand. But the food to support the increase from the greater number will by no means be obtained with the same facility. Man is necessarily confined in room. When acre has been added to acre till all the fertile land is occupied, the yearly increase of food must depend upon the melioration of the land already in possession. This is a fund, which, from the nature of all soils, instead of increasing, must be gradually diminishing. But population, could it be supplied with food, would go on with unexhausted vigour; and the increase of one period would furnish the power of a greater increase the next, and this without any limit.

From the accounts we have of China and Japan, it may

be fairly doubted, whether the best directed efforts of human industry could double the produce of these countries even once in any number of years. There are many parts of the globe, indeed, hitherto uncultivated and almost unoccupied; but the right of exterminating, or driving into a corner where they must starve, even the inhabitants of these thinly-peopled regions, will be questioned in a moral view. The process of improving their minds and directing their industry would necessarily be slow; and during this time, as population would regularly keep pace with the increasing produce, it would rarely happen that a great degree of knowledge and industry would have to operate at once upon rich unappropriated soil. Even where this might take place, as it does sometimes in new colonies, a geometrical ratio increases with such extraordinary rapidity, that the advantages could not last long. If the United States of America continue increasing, which they certainly will do, though not with the same rapidity as formerly, the Indians will be driven farther and farther back into the country, till the whole race is ultimately exterminated, and the territory is incapable of further extension.

These observations are, in a degree, applicable to all parts of the earth where the soil is imperfectly cultivated. To exterminate the inhabitants of the greatest part of Asia and Africa, is a thought that could not be admitted for a moment. To civilise and direct the industry of the various tribes of Tartars and Negroes, would certainly be a work of considerable time, and of variable and uncertain success.

Europe is by no means so fully peopled as it might be. In Europe there is the fairest chance that human industry may receive its best direction. The science of agriculture has been much studied in England and Scotland; and there is still a great portion of uncultivated land in these countries. Let us consider at what rate the produce of this island (Great Britain) might be supposed to increase under circumstances the most favourable to improvement.

If it be allowed that by the best possible policy, and great encouragements to agriculture, the average produce of the island could be doubled in the first twenty-five years, it will be allowing, probably, a greater increase than could with reason be expected.

In the next twenty-five years, it is impossible to suppose that the produce could be quadrupled. It would be contrary to all our knowledge of the properties of land. The improvement of the barren parts would be a work of time and labour; and it must be evident to those who have the slightest acquaintance with agricultural subjects, that in proportion as cultivation extended, the additions that could yearly be made to the former average produce must be gradually and regularly diminishing. That we may be the better able to compare the increase of

population and food, let us make a supposition, which, without pretending to accuracy, is clearly more favourable to the power of production in the earth than any experience we have had of its qualities will warrant.

Let us suppose that the yearly additions which might be made to the former average produce, instead of decreasing, which they certainly would do, were to remain the same; and that the produce of this island might be increased every twenty-five years, by a quantity equal to what it at present produces. The most enthusiastic speculator cannot suppose a greater increase than this. In a few centuries it would make every acre of land in the island like a garden.

If this supposition be applied to the whole earth, and if it be allowed that the subsistence for man which the earth affords might be increased every twenty-five years by a quantity equal to what it at present produces, this will be supposing a rate of increase much greater than we can imagine that any possible exertions of mankind could make it.

It may be fairly pronounced, therefore, that, considering the present average state of the earth, the means of subsistence, under circumstances the most favourable to human industry, could not possibly be made to increase faster than in an arithmetical ratio.

The necessary effects of these two different rates of increase, when brought together, will be very striking. Let us call the population of this island eleven millions; and suppose the present produce equal to the easy support of such a number. In the first twenty-five years the population would be twenty-two millions, and the food being also doubled, the means of subsistence would be equal to this increase. In the next twenty-five years, the population would be forty-four millions, and the means of subsistence only equal to the support of thirty-three millions. In the next period the population would be eighty-eight millions, and the means of subsistence just equal to the support of half that number. And, at the conclusion of the first century, the population would be a hundred and seventy-six millions, and the means of subsistence only equal to the support of fifty-five millions, leaving a population of a hundred and twenty-one millions totally unprovided for.

Taking the whole earth, instead of this island, emigration would of course be excluded; and, supposing the present population equal to a thousand millions, the human species would increase as the numbers, 1, 2, 4, 8, 16, 32, 64, 128, 256; and subsistence as 1, 2, 3, 4, 5, 6, 7, 8, 9. In two centuries the population would be to the means of subsistence as 256 to 9; in three centuries as 4096 to 13, and in two thousand years the difference would be almost incalculable.

In this supposition no limits whatever are placed to the produce of the earth. It may increase for ever, and be

greater than any assignable quantity; yet still the power of population being in every period so much superior, the increase of the human species can only be kept down to the level of the means of subsistence by the constant operation of the strong law of necessity, acting as a check upon the greater power.

Of the General Checks to Population, and
the Mode of Their Operation

The ultimate check to population appears then to be a want of food, arising necessarily from the different ratios according to which population and food increase. But this ultimate check is never the immediate check, except in cases of actual famine.

The immediate check may be stated to consist in all those customs, and all those diseases, which seem to be generated by a scarcity of the means of subsistence; and all those causes, independent of this scarcity, whether of a moral or physical nature, which tend prematurely to weaken and destroy the human frame.

These checks to population, which are constantly operating with more or less force in every society, and keep down the number to the level of the means of subsistence, may be classed under two general heads -- the preventive and the positive checks.

The preventive check, as far as it is voluntary, is peculiar to man, and arises from that distinctive superiority in his reasoning faculties which enables him to calculate distant consequences. The checks to the indefinite increase of plants and irrational animals are all either positive or, if preventive, involuntary. But man cannot look around him, and see the distress which frequently presses upon those who have large families; he cannot contemplate his present possessions or earnings, which he now nearly consumes himself, and calculate the amount of each share, when with very little addition they must be divided, perhaps, among seven or eight, without feeling a doubt whether, if he follow the bent of his inclinations, he may be able to support the offspring which he will probably bring into the world. In a state of equality, if such can exist, this would be the simple question. In the present state of society other considerations occur. Will he not lower his rank in life, and be obliged to give up in great measure his former habits? Does any mode of employment present itself by which he may reasonably hope to maintain a family? Will he not at any rate subject himself to greater difficulties, and more severe labour, than in his single state? Will he not be unable to transmit to his children the same advantages of education and improvement that he had himself possessed? Does he even feel secure that, should he have a large family, his utmost exertions can save them from rags and squalid poverty, and their consequent degradation in the community? 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 great number of persons in all civilised nations from pursuing the dictate of nature in an early attachment to one woman.

If this restraint do not produce vice, it is undoubtedly the least evil that can arise from the principle of population. Considered as a restraint on a strong natural inclination, it must be allowed to produce a certain degree of temporary unhappiness; but evidently slight, compared with the evils which result from any of the other checks to population; and merely of the same nature as many other sacrifices of temporary to permanent gratification, which it is the business of a moral agent continually to make.

When this restraint produces vice, the evils which follow are but too conspicuous. A promiscuous intercourse to such a degree as to prevent the birth of children, seems to lower, in the most marked manner, the dignity of human nature. It cannot be without its effect on men, and nothing can be more obvious than its tendency to degrade the female character, and to destroy all its most amiable and distinguishing characteristics. Add to which, that among those unfortunate females with which all great towns abound, more real distress and aggravated misery are, perhaps, to be found, than in any other department of human life.

When a general corruption of morals, with regard to the sex, pervades all the classes of society, its effects must necessarily be to poison the springs of domestic happiness, to weaken conjugal and parental affection, and to lessen the united exertions and ardour of parents in the care and education of their children; -- effects which cannot take place without a decided diminution of the general happiness and virtue of society; particularly as the necessity of art in the accomplishment and conduct of intrigues, and in the concealment of their consequences, necessarily leads to many other vices.

The positive checks to population are extremely various, and include every cause, whether arising from vice or misery, which in any degree contribute to shorten the natural duration of human life. Under this head, therefore, may be enumerated all unwholesome occupations, severe labour and exposure to the seasons, extreme poverty, bad nursing of children, large towns, excesses of all kinds, the whole train of common diseases and epidemics, wars, plague, and famine.

On examining these obstacles to the increase of population which are classed under the heads of preventive and positive checks, it will appear that they are all resolvable into moral restraint, vice, and misery.

Of the preventive checks, the restraint from marriage which is not followed by irregular gratifications may properly be termed moral restraint.

Promiscuous intercourse, unnatural passions, violations

New lands and improved ag. proved him wrong. Also more orderly governments.

of the marriage bed, and improper arts to conceal the consequences of irregular connections, are preventive checks that clearly come under the head of vice.

Of the positive checks, those which appear to arise unavoidably from the laws of nature, may be called exclusively misery; and those which we obviously bring upon ourselves, such as wars, excesses, and many others which it would be in our power to avoid, are of a mixed nature. They are brought upon us by vice, and their consequences are misery.

The sum of all these preventive and positive checks, taken together, forms the immediate check to population; and it is evident that, in every country where the whole of the procreative power cannot be called into action, the preventive and the positive checks must vary inversely as each other; that is, in countries either naturally unhealthy, or subject to a great mortality, from whatever cause it may arise, the preventive check will prevail very little. In those countries, on the contrary, which are naturally healthy, and where the preventive check is found to prevail with considerable force, the positive check will prevail very little, or the mortality be very small.

In every country some of these checks are, with more or less force, in constant operation; yet, notwithstanding their general prevalence, there are few states in which there is not a constant effort in the population to increase beyond the means of subsistence. This constant effort as constantly tends to subject the lower classes of society to distress, and to prevent any great permanent melioration of their condition.

These effects, in the present state of society, seem to be produced in the following manner. 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 eleven millions, must now be divided among eleven millions and a half. 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 work in the market, the price of labour must tend to fall, while the price of provisions would at the same time tend to rise. The labourer therefore must do more work 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 the progress of population is retarded. In the meantime, the cheapness of labour, the plenty of labourers, and the necessity of an increased industry among 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 may 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, after a short period, the same retrograde and progressive movements with respect to happiness are repeated.

This sort of oscillation will not probably be obvious to common view; and it may be difficult even for the most attentive observer to calculate its periods. Yet that, in the generality of old states, some alternation of this kind does exist, though in a much less marked, and in a much more irregular manner, than I have described it, no reflecting man, who considers the subject deeply, can well doubt.

One principal reason why this oscillation has been less remarked, and less decidedly confirmed by experience than might naturally be expected, is, that the histories of mankind which we possess are, in general, histories only of the higher classes. We have not many accounts that can be depended upon, of the manners and customs of that part of mankind where these retrograde and progressive movements chiefly take place. A satisfactory history of this kind, of one people and of one period, would require the constant and minute attention of many observing minds in local and general remarks on the state of the lower classes of society, and the causes that influenced it; and, to draw accurate inferences upon this subject, a succession of such historians for some centuries would be necessary. This branch of statistical knowledge has, of late years, been attended to in some countries, and we may promise ourselves a clearer insight into the internal structure of human society from the progress of these inquiries. But the science may be said yet to be in its infancy, and many of the objects on which it would be desirable to have information, have been either omitted or not stated with sufficient accuracy. Among these, perhaps, may be reckoned the proportion of the number of adults to the number of marriages; the extent to which vicious customs have prevailed in consequence of the restraints upon matrimony; the comparative mortality among the children of the most distressed part of the community, and of those who live rather more at their ease; the variations in the real price of labour; the observable differences in the state of the lower classes of society, with respect to ease and happiness, at different times during a certain period; and very accurate registers of births, deaths, and marriages, which are of the utmost importance in this subject.

A faithful history, including such particulars, would tend greatly to elucidate the manner in which the constant check upon population acts; and would probably prove the existence of the retrograde and progressive movements that have been mentioned; though the times of their vibration must necessarily be rendered irregular from the

operation of many interrupting causes; such as, the introduction or failure of certain manufactures; a greater or less prevalent spirit of agricultural enterprise; years of plenty, or years of scarcity; wars, sickly seasons, poor-laws, emigrations and other causes of a similar nature.

A circumstance which has, perhaps, more than any other, contributed to conceal this oscillation from common view, is the difference between the nominal and real price of labour. It very rarely happens that the nominal price of labour universally falls; but we well know that it frequently remains the same, while the nominal price of provisions has been gradually rising. This, indeed, will generally be the case, if the increase of manufactures and commerce be sufficient to employ the new labourers that are thrown into the market, and to prevent the increased supply from lowering the money-price. But an increased number of labourers receiving the same money-wages will necessarily, by their competition, increase the money-price of corn. This is, in fact, a real fall in the price of labour; and, during this period, the condition of the lower classes of the community must be gradually growing worse. But the farmers and capitalists are growing rich from the real cheapness of labour. Their increasing capitals enable them to employ a greater number of men; and, as the population had probably suffered some check from the greater difficulty of supporting a family, the demand for labour, after a certain period, would be great in proportion to the supply, and its price would of course rise, if left to find its natural level; and thus the wages of labour, and consequently the condition of the lower classes of society, might have progressive and retrograde movements, though the price of labour might never nominally fall.

In savage life, where there is no regular price of labour, it is little to be doubted that similar oscillations take place. When population has increased nearly to the utmost limits of the food, all the preventive and the positive checks will naturally operate with increased force. Vicious habits with respect to the sex will be more general, the exposing of children more frequent, and both the probability and fatality of wars and epidemics will be considerably greater; and these causes will probably continue their operation till the population is sunk below the level of the food; and then the return to comparative plenty will again produce an increase, and, after a certain period, its further progress will again be checked by the same causes.

But without attempting to establish these progressive and retrograde movements in different countries, which would evidently require more minute histories than we possess, and which the progress of civilisation naturally tends to counteract, the following propositions are intended to be proved: --

1. Population is necessarily limited by the means of subsistence.

2. Population invariably increases where the means of subsistence increase, unless prevented by some very powerful and obvious checks.

3. These checks, and the checks which repress the superior power of population, and keep its effects on a level with the means of subsistence, are all resolvable into moral restraint, vice, and misery.....

Of Our Rational Expectations Respecting the Future Improvement of Society

In taking a general and concluding view of our rational expectations respecting the mitigation of the evils arising from the principle of population, it may be observed that though the increase of population in a geometrical ratio be incontrovertible, and the period of doubling when unchecked has been uniformly stated in this work rather below than above the truth; yet there are some natural consequences of the progress of society and civilisation, which necessarily repress its full effects. These are more particularly great towns and manufactures, in which we can scarcely hope, and certainly not expect to see any very material change. It is undoubtedly our duty and in every point of view highly desirable, to make towns and manufacturing employments as little injurious as possible to the duration of human life; but after all our efforts it is probable that they will always remain less healthy than country situations and country employments, and consequently operating as positive checks will diminish in some degree the necessity of the preventive check.

In every old state it is observed that a considerable number of grown-up people remain for a time unmarried. The duty of practising the common and acknowledged rules of morality during this period has never been controverted in theory, however it may have been opposed in practice. This branch of the duty of moral restraint has scarcely been touched by the reasonings of this work. It rests on the same foundation as before, neither stronger nor weaker. And knowing how incompletely this duty has hitherto been fulfilled, it would certainly be visionary to expect that in future it would be completely fulfilled.

The part which has been affected by the reasonings of this work is not therefore that which relates to our conduct during the period of celibacy, but to the duty of extending this period till we have a prospect of being able to maintain our children. And it is by no means visionary to indulge a hope of some favourable change in this respect; because it is found by experience that the prevalence of this kind of prudential restraint is extremely different in different countries, and in the same countries at different periods.

It cannot be doubted that throughout Europe in general, and most particularly in the northern states, a decided

change has taken place in the operation of prudential restraint, since the prevalence of those warlike and enterprising habits which destroyed so many people. In later times the gradual diminution and almost total extinction of the plagues, which so frequently visited Europe in the seventeenth and beginning of the eighteenth centuries, produced a change of the same kind. And in this country it is not to be doubted that the proportion of marriages has become smaller since the improvement of our towns, the less frequent returns of epidemics, and the adoption of habits of greater cleanliness. During the late scarcities it appears that the number of marriages diminished; and the same motives which prevented many people from marrying during such a period, would operate precisely in the same way, if in future the additional number of children reared to manhood from the introduction of the cow-pox, were to be such as to crowd all employments, lower the price of labour, and make it more difficult to support a family.

Universally, the practice of mankind on the subject of marriage has been much superior to their theories; and however frequent may have been the declamations on the duty of entering into this state, and the advantage of early unions to prevent vice, each individual has practically found it necessary to consider of the means of supporting a family before he ventured to take so important a step. That great vis medicatrix reipublicae, the desire of bettering our condition, and the fear of making it worse, has been constantly in action, and has been constantly directing people into the right road in spite of all the declamations which tended to lead them aside. Owing to this powerful spring of health in every state, which is nothing more than an inference from the general course of the laws of nature irresistibly forced on each man's attention, the prudential check to marriage has increased in Europe; and it cannot be unreasonable to conclude that it will still make further advances. If this take place without any marked and decided increase of a vicious intercourse with the sex, the happiness of society will evidently be promoted by it; and with regard to the danger of such increase, it is consolatory to remark that those countries in Europe where marriages are the latest or least frequent, are by no means particularly distinguished by vices of this kind. It has appeared that Norway, Switzerland, England, and Scotland, are above all the rest in the prevalence of the preventive check; and though I do not mean to insist particularly on the virtuous habits of these countries, yet I think that no person would select them as the countries most marked for profligacy of manners. Indeed from the little that I know of the continent, I should have been inclined to select them as most distinguished for contrary habits, and as rather above than below their neighbours in the chastity of their women, and consequently in the virtuous habits of their men. Experience therefore seems to teach us that it is

possible for moral and physical causes to counteract the effects that might at first be expected from an increase of the check to marriage; but allowing all the weight to these effects which is in any degree probable, it may be safely asserted that the diminution of the vices arising from indigence would fully counterbalance them; and that all the advantages of diminished mortality and superior comforts, which would certainly result from an increase of the preventive check, may be placed entirely on the side of the gains to the cause of happiness and virtue.

It is less the object of the present work to propose new plans of improving society than to inculcate the necessity of resting contented with that mode of improvement which already has in part been enacted upon as dictated by the course of nature, and of not obstructing the advances which would otherwise be made in this way.

It would be undoubtedly highly advantageous that all our positive institutions, and the whole tenor of our conduct to the poor, should be such as actively to co-operate with that lesson of prudence inculcated by the common course of human events; and if we take upon ourselves sometimes to mitigate the natural punishments of imprudence, that we could balance it by increasing the rewards of an opposite conduct. But much would be done if merely the institutions which directly tend to encourage marriage were gradually changed and we ceased to circulate opinions and inculcate doctrines which positively counteract the lessons of nature.

The limited good which it is sometimes in our power to effect is often lost by attempting too much, and by making the adoption of some particular plan essentially necessary even to a partial degree of success. In the practical application of the reasonings of this work I hope that I have avoided this error. I wish to press on the recollection of the reader that though I may have given some new views of old facts, and may have indulged in the contemplation of a considerable degree of possible improvement that I might not shut out that prime cheerer hope, yet in my expectations of probable improvement and in suggesting the means of accomplishing it I have been very cautious. The gradual abolition of the poor-laws has already often been proposed in consequence of the practical evils which have been found to flow from them, and the danger of their becoming a weight absolutely intolerable on the landed property of the kingdom. The establishment of a more extensive system of national education has neither the advantage of novelty with some nor its disadvantages with others to recommend it. The practical good effects of education have long been experienced in Scotland, and almost every person who has been placed in a situation to judge has given his testimony that education appears to have a considerable effect in the prevention of crimes,

and the promotion of industry, morality, and regular conduct. Yet these are the only plans which have been offered, and though the adoption of them in the modes suggested would very powerfully contribute to forward the object of this work and better the condition of the poor, yet if nothing be done in this way I shall not absolutely despair of some partial good resulting from the general effects of the reasoning.

If the principles which I have endeavoured to establish be false I most sincerely hope to see them completely refuted; but if they be true, the subject is so important and interests the question of human happiness so nearly, that it is impossible they should not in time be more fully known and more generally circulated, whether any particular efforts be made for the purpose or not.

Among the higher and middle classes of society the effect of this knowledge will I hope be to direct without relaxing their efforts in bettering the condition of the poor; to show them what they can and what they cannot do; and that although much may be done by advice and instruction, by encouraging habits of prudence and cleanliness, by discriminate charity, and by any mode of bettering the present condition of the poor which is followed by an increase of the preventive check; yet that without this last effect all the former efforts would be futile; and that in any old and well-peopled state to assist the poor in such a manner as to enable them to marry as early as they please and rear up large families, is a physical impossibility. This knowledge, by tending to prevent the rich from destroying the good effects of their own exertions and wasting their efforts in a direction where success is unattainable, would confine their attention to the proper objects, and thus enable them to do more good.

Among the poor themselves its effects would be still more important. That the principal and most permanent cause of poverty has little or no direct relation to forms of government or the unequal division of property; and that as the rich do not in reality possess the power of finding employment and maintenance for the poor, the poor cannot in the nature of things possess the right to demand them, are important truths flowing from the principle of population which when properly explained would by no means be above the most ordinary comprehensions. And it is evident that every man in the lower classes of society who became acquainted with these truths would be disposed to bear the distresses in which he might be involved with more patience; would feel less discontent and irritation at the government and the higher classes of society on account of his poverty; would be on all occasions less disposed to insubordination and turbulence; and if he received assistance either from any public institution or from the hand of private charity, he would receive it with more thankfulness, and more justly appreciate its value.

If these truths were by degrees more generally known (which in the course of time does not seem to be improbable from the natural effects of the mutual interchange of opinions), the lower classes of people as a body would become more peaceable and orderly, would be less inclined to tumultuous proceedings in seasons of scarcity, and would at all times be less influenced by inflammatory and seditious publications from knowing how little the price of labour and the means of supporting a family depend upon a revolution. The mere knowledge of these truths, even if they did not operate sufficiently to produce any marked change in the prudential habits of the poor with regard to marriage, would still have a most beneficial effect on their conduct in a political light; and undoubtedly one of the most valuable of these effects would be the power that would result to the higher and middle classes of society of gradually improving their governments without the apprehension of those revolutionary excesses, the fear of which at present threatens to deprive Europe even of that degree of liberty which she had before experienced to be practicable, and the salutary effects of which she had long enjoyed.

From a review of the state of society in former periods compared with the present, I should certainly say that the evils resulting from the principle of population have rather diminished than increased, even under the disadvantage of an almost total ignorance of the real cause. And if we can indulge the hope that this ignorance will be gradually dissipated, it does not seem unreasonable to expect that they will be still further diminished. The increase of absolute population, which will of course take place, will evidently tend but little to weaken this expectation, as everything depends upon the relative proportion between population and food, and not on the absolute number of people. In the former part of this work it appeared that the countries which possessed the fewest people often suffered the most from the effects of the principle of population; and it can scarcely be doubted that, taking Europe throughout, fewer famines and fewer diseases arising from want have prevailed in the last century than in those which preceded it.

On the whole therefore, though our future prospects respecting the mitigation of the evils arising from the principle of population may not be so bright as we could wish, yet they are far from being entirely disheartening, and by no means preclude that gradual and progressive improvement in human society, which before the late wild speculations on this subject was the object of rational expectation. To the laws of property and marriage, and to the apparently narrow principle of self-interest which prompts each individual to exert himself in bettering his condition, we are indebted for all the noblest exertions of human genius, for everything that distinguishes the civilised from the savage state. A strict inquiry into

to end.

principle of population obliges us to conclude that we shall never be able to throw down the ladder by which we have risen to this eminence; but it by no means proves that we may not rise higher by the same means. The structure of society in its great features will probably always remain unchanged. We have every reason to believe that it will always consist of a class of proprietors and a class of labourers; but the condition of each and the proportion which they bear to each other may be so altered as greatly to improve the harmony and beauty of the whole. It would indeed be a melancholy reflection that, while the views of physical science are daily enlarging so as scarcely to be bounded by the most distant horizon, the science of moral and political philosophy should be confined within such narrow limits, or at best be so feeble in its influence as to be unable to counteract the obstacles to human happiness arising from a single cause. But however formidable these obstacles may have appeared in some parts of this work, it is hoped that the general result of the inquiry is such as not to make us give up the improvement of human society in despair. The partial good which seems to be attainable is worthy of all our exertions, is sufficient to direct our efforts and animate our prospects. And although we cannot expect that the virtue and happiness of mankind will keep pace with the brilliant career of physical discovery: yet if we are not wanting to ourselves, we may confidently indulge the hope that to no unimportant extent they will be influenced by its progress and will partake in its success. *

His followers tended to be more pessimistic