

Socialism, Revolution and the Law of Chance

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Editor's Note:—This article is taken from "The Socialist Review" (London) Oct.-Dec. 1921. It will be seen that the author is an adherent of the policies of the I.L.P. Nevertheless, the article should stimulate thought and is inserted here to that end.

THE law of chance, or the mathematical theory of probability, is little understood outside those sciences, such as biology and statistics, where it is specifically applied; yet it is of enormous importance to the general student of social problems, because all policies and plans for social regeneration are tacitly built on assumptions as to how mankind will act under given conditions. Many of the wild schemes floating in the intellectual atmosphere of some of our Socialist, but much more so in our religious, organisations, would never have gained the weight they have, had all their advocates been acquainted with the known laws of chance.

The laws of chance are not uncertain as the word chance might imply: under the requisite conditions they are as certain in their operation as any other law in mathematics. If a well-made coin be tossed at random, the chance that it will drop "heads" is obviously one in two. If the coin be tossed 50 times the chance that it will drop "heads" is 25 times. In practice it would seldom fall "heads" exactly 25 times, but would tend to fall near that number. But if the coin were tossed 100,000 times, the number of times it would fall "heads" would only deviate from 50 per cent. by a small fraction, the limits of which can be found; and if it were tossed 1,000,000 times the fraction would be so small that it could safely be neglected without affecting the result to a perceptible degree. Hence, when we are dealing with millions of people, or their death rates, birth rates, measurements, the law of chance will freely operate providing other conditions, such as freedom from bias, are present.

It is, of course, in the matter of bias that the greatest difficulty is experienced in applying the law of chance to social problems. In throwing dice, for example, there is no specific influence at work (if the dice be properly made) to make any particular number come to the top, and the law of chance will freely operate; but if one side is weighted the results will be greatly affected. Hence, in such matters as death rates, we shall find different bias according to the poverty or wealth, housing conditions, trade, of the different districts. Allowance, therefore, has to be made. This however, does not prevent an almost exact knowledge of death being known in actual districts, and calculations based on it are made by insurance companies. A general idea of the law of chance can be obtained from Professor Bowley's introduction to Part II. of his Statistics, and possibly the most readable book on the subject in Venn's Logic of Chance.

I now propose to apply the law of chance, in a general manner, to a few of the questions in which the Socialist movement is interested. I do not pretend that exact measurements can be made, but in deductions can certainly be drawn from the data we have as to whether the chances are great or small, and when the chances of a thing succeeding are very great it is scientifically sound to base a policy on it, and when very small it would be ridiculous to act on a gambler's hope of success. I will take a few headings.

(1) Can a church, or the rich, solve the social problem? There is a widespread notion in the churches that society can be saved by the individual practising Christianity. Obviously, if all practised the command, "Love thy neighbor as thyself," the social problem would cease to exist, everybody with two coats would impart to him that had none, and poverty would vanish. However much we respect the doctrines of the Nazarine, we are bound to real-

ise that the chance of Christians doing this is so slight as not to be worth serious consideration; that we can assert from the world of experience that the number of people who actually practice giving all they possess to the poor is probably less than one in 5,000,000, and that the chance of changing society by this means is therefore the same. This is, of course, taking an extreme view of the logical requirements of the Christian faith, but the chances of changing society by similar, if less drastic, methods are little greater. It is useless saying how beautiful society would be if only people would do this or that when the law of chance, adduced from actual experience, shows plainly that they will not do it.

Again, some people place an undue importance on the possibility of getting rich to realize the benefit to mankind of the Socialist solution. In practice the number of wealthy people who abandon the ideas and interests of their class to advocate the Socialist cause is comparatively small. In some "samples" which I collected I found them to be roughly five in 5,000, or one in 1,000. Assuming that this is a true proportion in a very large sample there would be one chance in a thousand of society being reorganized on Socialist lines if the movement were strictly confined to an appeal to the rich—an absurd proportion on which to base a policy. If our policy were based on the numerical chance given above we ought to spend 999 out of every 1,000 parts of our energy in appealing to that somewhat indefinite quantity, the working class, for there are 999 chances out of every 1,000 that the Socialist commonwealth will be brought about by the workers and not by the wealthy.

The problem is not really as simple as this, even if we define clearly who is a worker, for the quality of the rich who leave their class has also to be taken into account. The Socialist movement in its early stages depended for leadership largely on the upper or middle classes. The influence of Marx, for example, cannot be measured by a number one. The brain of the wider Labor movement even now has a considerable portion drawn from people who can afford a university education. Nevertheless, after making allowance for all this, the chance of Socialism being realized by any force except that contained naturally in the broad working class is not less remote; indeed, a partial reason for the presence of some of the middle-class brains (especially in the Labor Party) is the fact that the greater Labor movement can afford to pay for them.

(2) What chance has a Socialist policy of succeeding? We have to estimate the chance of a majority accepting ideas at present propounded by a minority, and what form they must take. First, let us consider mass opinion. We shall find that there is comparatively little difference in the outlook of the mass of the people. They approximate to a mean in matters physical and mental, only a relatively small number departing, to any extent, from it. For example it can be shown that the vast majority of adult males do not deviate more than three or four inches from the mean height of 67½ inches. In weight, though the curve is "skew," there is a "mode" of 145 or 146 lbs. round which the bulk of weights range. In intellect the same result appears. An approximate measure of knowledge and intelligence can be obtained by the number of marks students obtain in an examination. Where the number of examination entrants has been large enough to enable the law of chance freely to operate, the number of marks gained by each student has been tabulated, and the curve representing this invariably conforms to a curve technically known as the curve of error; i.e., there is a certain number of marks round which the bulk of students range, only a minority deviating to any serious extent from the aver-

age, and this majority becomes smaller the farther it is from the average.

From this data we may conclude that the bulk of people are on the same physical and mental plane, and therefore the chances are great that any movement in approximately the same way, that real progress is only possible when the new conceptions can be imbibed by the bulk of the people—in short, that the chance of success is only great when movements are mass movements, actual or potential. Further, the chance that the actual social organization can, for any length of time, be beyond the limits of the intelligence of the great mass of people is very small. Ideas cannot necessarily be put into operation because a minority believes in them, even if that minority seize power. The limit of power of any governing class is narrower than is usually thought. Lenin, wiser in compromise than his disciples here, realized that a nationalization of land decree was, at the moment, far beyond the capacity of the Russian peasant, and in consequence suited his land system to Russian conditions.

The data also suggests that in actual organization a policy suited to the capacity of the majority on the upper side of the average, and strictly relative to economic conditions which affect masses of people in the same way, is most likely to succeed, while the ideal of a complete social revolution which all Socialists have as their goal must be consistently preached to the masses until it becomes a part of their mental atmosphere. It is because the I. L. P. has done this by its independent Socialist propaganda in education, that it has become the most powerful Socialist organization, while the clear-cut Socialist organizations, which thought more of exact doctrine and academic purity, are still in the wilderness and likely to remain there.

(3) The chance of Revolution. It is a matter of common experience that the chance of a well-fed person, in fairly good circumstances, wanting to revolt or to use personal violence because of an abstract idea, is slight, and could not be placed higher than one in 5,000; hence, under ordinary conditions the mere preaching of a physical force revolution could never seriously influence many people. At the same time history shows plainly that human action is so interwoven with emotions that passions can be roused in masses of people, and fearful wars and bloody revolutions can be accomplished. We can

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