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Henry George and the Causation of Interest

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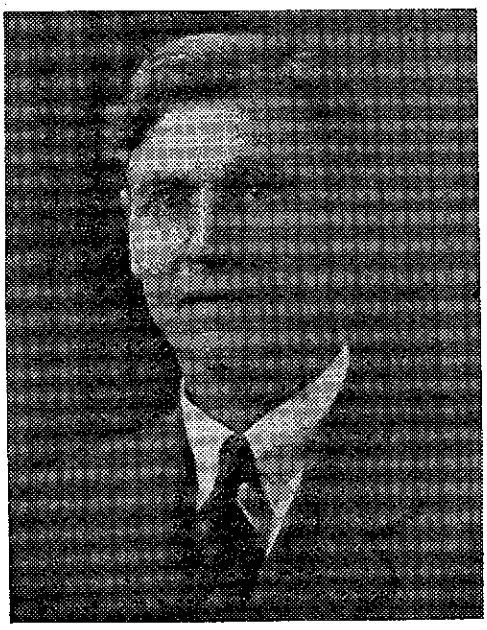

HENRY GEORGE'S contribution to the understanding of the rent of land and its significance in our civilization and to the working out of a clear and well-considered policy of land-value taxation was outstanding. His explanation—or attempted explanation—of the causation of interest on capital was not.

A correct theory of the causation of interest sharpens the distinction between land and capital and the distinction between land rent and the interest yielded by capital. It therefore makes for a more effective and convincing presentation of the land-value-tax argument. It clarifies the contrast between the philosophy of socialism and that of a sane and self-consistent capitalism. A clear presentation of the correct theory by the men and women who are interested in and eager to promote, by teaching or otherwise, the cause of land-value taxation, might well mean that fewer of those whom they have "almost persuaded" will later drift confusedly into the advocacy of socialism.

Two facts are vital to a correct theory. One is that, in general, we can produce more by following a roundabout process. That is, we can, in general, produce more if, instead of making directly the goods we desire to consume, we first produce other goods—buildings, trucks, locomotives, fruit trees, etc.—from which, over a period of time, we expect to get help in producing the goods and services we ultimately desire.

The second important fact is that such a "roundabout" process, involving the production of *capital* as an intermediate step, necessarily involves *saving, i. e.,* we must, for a time, produce *more* than we consume. We must *wait* for the capital to yield its net return and, indeed, we must wait even for it to yield back its cost.

It is to be noted, further, that if one man must have—or greatly desires to have—all he can earn from day to day to satisfy present needs or wants and so cannot afford to *wait* or just does not wish to, he can be provided with the means of meeting these present wants or needs through the *saving* of another—or others—who does the waiting in his place. This is not to deny Henry George's pronouncement that wages are not drawn from capital. In general, the laborer is not paid prior to his production of an equivalent *value*. But it is none the less true that the laborer who is engaged in building a flour mill or planting an apple orchard or constructing a cotton cloth factory must usually receive food and clothing *before* these are yielded by the *capital* he is engaged in making. Unless he can and will take his wages in the form of a share or shares in the capital he makes, and will *himself wait* for what the capital will later yield, *someone else* must give up to him the goods he needs and assume the *waiting, i. e.,* some person (or persons) other than himself must *save* in order that the laborer may spend his time wholly in the making of *capital.*

From such facts as have been stated in the last three paragraphs above we can develop a theory of the causation of interest.[1]

How can a fisherman increase his catch? Perhaps by building himself a boat that enables him to go where the fish are most plentiful. But to build the boat he must save, *i. e.,* he must produce, for a time, more than he consumes. The boat is, of course, an excess of his production over his consumption. If he consumes each day all that he produces that day, the boat will never materialize. The larger daily catch after the boat becomes available must be regarded as partly a repayment of the labor of building the boat and partly interest, the extra return made possible by the new capital over what all the owner's labor, past and present, could produce without it. Wherein can his enjoyment of this interest, this extra return made possible by his own saving, be objected to? Whom is it supposed that he is robbing?

How can a farmer increase his crop? He may work to fertilize his land or he may irrigate it or he may plant and bring to maturity an orchard. With the fertilized land he can produce more each year than if the land were not fertilized, and still more, perhaps, if it is irrigated.

With the planted orchard he can make his labor of future years more productive in the getting of fruit. But in each case he has to save, *i. e.*, produce for a time more than he consumes. His extra production is not of wheat, corn or fruit but is greater fertility or moisture in the soil, or growing fruit trees. These things are produced *in addition to* what the farmer consumes. He produces them in additional working hours beyond the time necessary to produce his own current means of livelihood.

When, thereafter, the farmer enjoys the larger crops made possible by the fertilization of his land or by its irrigation or by the planting of the fruit trees, all[2] of the excess above what the labor spent in improving the farm could have brought him if applied directly to current crop production, is a return on capital, an interest return, an extra income made possible by his saving. Let those socialists and those pinkish literary intelligentsia who contend that the income received by the owners of capital as such, is a robbery of the masses, explain for us what masses or what individuals the farmer of our illustration is robbing? In what sense does it take something away from others, for the farmer to save and thereby to make possible a larger production on his farm in future years? What person is made poorer by the fact that the farmer's soil is now richer or more effectively watered than before? In just what way does it injure the masses of working people or "deprive" any worker of "the full product of his labor," when the farmer's orchard begins to bear fruit and the farmer receives, thereby, gradual repayment for his temporarily wageless labor of planting, plus an excess which may properly be called interest or income on capital, the reward of his saving and a consequence of the fact that, by saving and thus accumulating capital, we can usually produce more wealth than if we did not save?

The principle involved here is precisely the same when, as is commonly the case, the person who saves does not himself construct the capital but provides the means, from his saving, for someone else to do it. Thus, suppose the farmer of our illustration, whom we shall now call Noren, does not himself fertilize his farm or install the irrigation system or plant the trees, in his extra time (beyond that necessary to provide for the immediate needs of himself and his family), but instead uses that extra time to produce an excess of wheat, potatoes, carrots, peas, etc., beyond his own needs. This excess he gives to another, whom we shall call Fenton, in order that the latter may be free to improve Noren's farm. Fenton, we may suppose, needs the potatoes, peas, etc. He wishes to—perhaps needs to—consume currently all that he can produce. If someone does not provide him with the potatoes, peas, etc., he must spend his own time producing them. He can afford to work the requisite number of days fertilizing Noren's farm or making an irrigation system for it or planting trees on it, only if he has something to live on while doing so. If Noren gives him for his work all the potatoes, carrots, peas, etc., that Fenton could produce for himself in the time he spends improving Noren's farm, how is Fenton in any way injured? How is he prevented from enjoying "the full product of his labor?" *It is Noren's saving that makes possible the improvement of the farm.* Fenton has lost nothing whatever. If Noren now enjoys the larger product from his farm which is the result of the improvement made possible by his own saving, in what way is he robbing Fenton? Fenton is at least as well off as he would have been had Noren not saved. And Fenton is certainly not prevented from saving on his own account,—if he desires to do so and can live on less than his current production. But, in the case we have been considering, it is Noren's saving that is responsible for the increased productiveness of Noren's farm.

Let us change the illustration somewhat, so as to make it both more complicated and more realistic. Noren, the farmer, does not directly give Fenton the wheat, potatoes, carrots and peas, but sells these crops for money (or bank checks) and pays the money (or checks on his bank) to Fenton who uses it to buy needed food and (perhaps) other goods. Noren, we may say, adds to society's available stock of consumable goods, receives money (in effect, tickets) entitling him to use up those goods or their equivalent, and passes this money, or a part of it (what he *saves*), to Fenton who buys therewith the consumable goods he needs and wants. Thus, Fenton does not have to spend his own time producing goods for immediate consumption but has his time made free—through Noren's saving—for producing capital.

And now let us illustrate the dependence of capital construction on saving, by a case still more complicated and one which pictures contemporary investment in corporate industry. A large number of Norens (so to speak), including farmers, bakers, tailors, coal miners, *et al.*, save, and invest in the stock of a paper manufacturing company which is about to construct a paper mill. The company hires a large number of Fentons to make the materials for the mill and do the constructing. The Norens produce more cereals, bread, potatoes, clothing, coal,

The saving of the Norens, in short, makes possible a construction of capital by the Fentons. The Fentons are certainly no worse off than if they spent their entire time producing goods for immediate consumption. They are paid, in money exchangeable for the excess consumable goods produced by others, all that their own labor could produce of such goods. The capital they construct could not come into existence without the saving of the Norens. It is the saving of the latter, their production of more than they consume, that makes the construction of the capital possible. If, now, this capital is truly productive, if it does really add to the output of industry an excess over what the labor and all the rest of the capital of the community could have produced without it, and if this excess goes, as return on their investment, to the Norens, who made the excess production possible, in what way have the Fentons been robbed?

When presenting the matter of the dependence of capital formation on *saving* to my classes, I emphasize over and over again that they must "get behind" (or pierce through) the "money smoke-screen". Men are so accustomed to talking and writing in terms of money, checks, bonds, stock, etc., that often they lose sight of the actual ultimate relations. I tell my students that it is no explanation of the relation of one's saving and investment to the making of capital, to say: "I saved some money and *put* it into a flour mill (or into the flour milling industry)." Such a statement, taken literally, might mean: "I saved some money, walked with it to a flour mill where there was an open window, reached in and laid the money inside."

Nor is it an explanation to say: "I saved some money and paid it to a flour milling company for some shares of stock and they used the money to pay men to build a new mill, and these men were willing to do this constructing *because* they expected to receive *money* for this work." The builders of the mill, unless they have some other source of income, must have at least part of their wages—and some of them must have *all* of their wages—in the form of food, clothing and other current necessities for themselves and their families. If all those directly producing food, clothing, etc, used up all of it as rapidly as they produced it, the *money* paid to the builders of the mill *would buy no food or clothing*, etc., because there would be none to buy.

The important point is that some of the producers of food, clothing and other goods for immediate consumption, produce *more* of such goods than they consume. They *put into* the current stock of goods available for immediate consumption, *more* than they currently take out. A farmer, a miller, a baker, a cobbler, a weaver, a tailor and a fisherman, let us say, produce a given composite of food and clothing. Each sells his product on the market for money (or bank checks) and then spends a *part* of this money taking from the market the food and clothing he and his family need (but not necessarily or usually the identical items he has produced, for the farmer can get some fish and some clothing, the fisherman some bread and some clothing, the tailor some bread and some fish, &c.). The remainder of his money he *saves*. That means he does *not* take out as much in consumable goods as he puts in. When and as, therefore, this *saved* money gets into the hands of the men who are building the mill, they can, by spending it, take from the current stock of consumable goods what those persons who are saving the money might instead be taking, but are not.

In discussing, in his *Progress and Poverty*, Bastiat's illustration involving James and William and the plane and planks[3], Henry George seeks to show that the lender of a plane contributes nothing to the borrower which can account for or justify interest. As all close students of *Progress and Poverty* who have puzzled over this chapter know, it was Henry George's opinion that *if* all capital were like planes, "interest would be but the robbery of industry" which the socialists insist that it actually is of all capital—"and could not long exist."[4]

Although the production of planes is made possible only through saving and this assumed case can, therefore, be fitted into the line of reasoning followed in the paragraphs above nevertheless the particular illustration is one which does not easily and simply suggest the explanation of interest on capital to the inquiring reader. It did not do so for Henry George. Since planks, like planes, are themselves instruments or means for the production of other wealth, *e. g.*, factories, stores, barns, etc., and are not, like cheese, eggs, meat, milk, potatoes, shirts and socks, available for immediate

etc., than they are themselves consuming. That is to say, they *save*. The money they receive for this excess (*i. e.*, the money they do not spend to satisfy their own current needs and desires) is paid for (invested in) stock of the paper company. The paper company pays it to the Fentons, who are enabled to buy therewith the excess of consumable goods produced by the Norens. Thus, the Fentons have their time set free for the construction of the mill, even though their circumstances are such that they need, or insist on having, in the form of consumable goods and services, all that they currently earn,—even though, that is, they themselves save nothing.

almost immediate) consumption, it natural did not occur to Henry George to suggest th planks were a prerequisite to the making of planes. In terms of the particular illustratio it did not occur to him to suggest that Williar desiring to spend the first ten days of a thre hundred-day working year making a plan must have planks to live on(!) while doing s and that otherwise he will have to make planl without the aid of a plane.

But although this idea seemingly did n occur to Henry George, the general princip involved is an essential element in the theo of interest. Men *can* produce more with capit than without it. (Suppose all of us had to d all our work not only completely exposed to th elements but with no tools at all, not even pointed stick! Who will insist that we coul produce as much as now?) And capital ca come into existence *only* as there is saving. is the embodiment of *extra* production *beyon* what is consumed as fast as it is produced. Th man who has not saved and does not save, ca have capital to use *only* as he gets it from som one else *or* only as he gets from someone els directly or indirectly, the *consumable goods* an services necessary to support him while he producing *capital*. For the *capital* he cannot e or wear. Yet he must have food to eat and— certainly in our climate—he needs clothes t wear. The persons who *save* from honest earn ings and make their savings available to others who are thereby enabled to and do produce capital—planes *and* planks, as well as plows and reapers, looms, trucks, locomotives, steamships, barns, factories, stores, orchards (but not, of course, the *land*), etc., etc.—those persons, *i. e.,* the savers, have made possible the *additional* output of industry which the capital yields and which, in the absence of the capital, *would not be yielded.*

In Henry George's references to James and William there is, indeed, no denial that such capital as planes is useful. But there is no clear sign of recognition of the fact that—assuming William to have no other source of livelihood than his own labor—he simply *could not* spend the entire first ten of three hundred working days making a tool (capital) to be used during the remaining two hundred and ninety days *unless* someone else provided him with the means of livelihood during the period of his making the tool. And if the reader questions William's dependence, on the ground that ten days is so short a time, he may properly be reminded that the case could equally well be one involving the building of a power dam or a Panama Canal on which many men work for months or years, during which they must be provided with a livelihood by others. Henry George seems to assume that William can just as well produce the plane himself, if he knows how, and presumably other capital such as a truck, steamship or factory, and to ignore completely William's utter inability to do so—except in snatches of spare time, which would mean that William is himself saving—*unless* supported by the savings of another or others. Probably Henry George did in some sense know this to be a fact, but seemingly he did not think of it as a matter of any significance in connection with the theory of interest.

Henry George makes the choice for William one between constructing the plane during the first ten days *or* borrowing a plane and devoting the last ten days of the three hundred to making a new plane to replace for the lender the now worn-out, borrowed plane. He overlooks completely, in this illustration, the fact that, for those who do not save, the choice is really one between working with the aid of capital and, therefore, more productively, or working without capital (or with less capital) and, therefore, less productively. When it becomes clear that this latter is the only real choice, it will be clear, also, that William or any such user of capital may indeed be willing to borrow and pay interest and that he is quite likely to realize that in doing so he is *not*, as Henry George contended he would be if all capital were like planes, worse off "than if there had been no borrowing."[5]

But Henry George did think he saw an explanation of interest on capital in the growth (with the passage of time) of animals and plants. And he argued that the gains of owners of such capital must somehow be shared with the owners of other capital in order that men should be willing to invest in such other capital. He mentioned also[6] "the utilization of the variations in the powers of nature and of man which is effected by exchange, an increase which somewhat resembles that produced by the vital forces of nature." And he remarks in that connection:[7] "Thus Whittington's cat, sent to a far country where cats are scarce and rats are plenty, returns in bales of goods and bags of gold."

Henry George recognized that growth in animal and vegetable life could occur only over time. And likewise as to trade. In these modes of production he asserts that[8] "time *is* an element. The seed in the ground germinates and grows while the farmer sleeps or plows new fields, and the everflowing currents of air and ocean bear Whittington's cat toward the rat-tormented ruler in the regions of romance." He did not deny that labor was necessary to plant the crops or the trees or to provide favorable conditions for the birth and to provide for early care of calves, pigs and other domestic animals. But there is no reference to any of this as constituting a cost-of-production of the capital and no clear reference to the fact that

the capital is yielding *no net return* during the period of growth *unless* output is *more* than sufficient to repay this cost of production *and* to pay wages for all work of operation. For though he asserts that there is[9] "a return over and above that which is to be attributed to labor", his theory of interest precludes any real and correct explanation of how much of the product on no-rent land can be clearly "imputed" or "attributed" to labor.

There is indeed, in general, a net return over cost from capital invested in fruit trees, livestock and the like, but there is also a return over cost, with the passage of time, from the construction and operation (use) of mechanical capital such as planes, plows, trucks, factories, etc. In truth the distinction which Henry George makes between purely mechanical capital such as planes and factories, on the one hand, and, on the other hand, things biological which grow in number or size during a period of time, is a distinction of no significance whatever so far as concerns the phenomenon of a net per cent yield or interest from capital. In both cases work is done from which the return in the form of consumable goods in consumers' hands is *deferred*. The factory must be built; the looms, power installations, etc., must be made; the fishing boat must be constructed and nets made; the fruit trees must be planted and, perhaps, grafted and cultivated. After its building, the factory contributes for years to a greater production of manufactured goods. After its construction, the fishing boat contributes for years to a greater catch of fish, and the nets contribute for the shorter period of their life. After their planting and early care, the fruit trees contribute over a period of years to a larger production of fruit.

Nor does nature help only through the biological forces of growth or only through these *and* such obvious forces as the flow of air and water. It is true that men plant trees and seed where conditions are favorable to biological growth. They dam up streams and are thus able to use the force of falling water to run machinery or to generate electric current which will do so. But it can be said with equal truth that, by construction of capital, men harness also, for use in production, the expanding power of steam and of gasoline, the cohesive power of wood, iron, steel, copper and aluminum, and other forces both active and passive of the material universe.

That Henry George failed to see this and to incorporate it into his theory of interest, seems perfectly clear from the following passage:[10]

"When the carpenter drops his plane as the sun sets, the increase of value, which he with his plane is producing, ceases until he begins his labor again the following morning. When the factory bell rings for closing, when the mine is shut down, production ends until work is resumed. The intervening time, so far as regards production, might as well be blotted out."

Corn must be planted, cultivated (for the best results) and harvested. In part, the harvest is a deferred return, with interest, from the labor of plowing, planting and cultivating. Nature contributes through the biological forces of growth and this may take place in large part during times when the farmer is not working in the cornfield and even, in smaller degree, during the nights or on holidays or at mealtimes, when he is not working at all. But also the cutting power of the steel blade, the heating power of coal and oil, the expansive power of steam and gasoline, the rain-diverting power of shingles or asphalt roll roofing or galvanized sheet steel, the lubricating qualities of grease in the machinery and the rigidity in the machines themselves—any or all of these forces of nature, and others, may continue to operate to serve men's purposes during intervals of seconds, minutes or (sometimes) hours, when the men are not actively working. A man may connect a furnace with a tank of oil, set a thermostat, and then leave for other tasks *or* for a period of rest, confident that for a considerable interval the furnace will function without his further attention. He may set the dials of a machine which is attached to a source of power, confident that for an interval, short or long as the case may be, it will function without his further personal care. And he may construct, along with other workers, a factory or a great warehouse, confidently expecting that for long years after his work on it has ceased—and even after he is no longer among the living—it will still be protecting from the elements the equipment or merchandise stored in it and will thus be, even though not itself in visible motion, contributing to the production of wealth.

In all these cases, the essential point is *not* that production is going on during some precise

period when men are idle. The point is, rather, that men have learned that they can, pretty generally, produce more—make their labor more effective—if they follow a *roundabout* process. In other words, they can accomplish more toward their ultimate aim of getting desired consumable goods, if they *first* build or make tools or equipment to help them, *i. e., capital.* This capital, regardless of whether it is subject to biological growth, like fruit trees, or, like buildings and machinery, is not subject to such growth, does, in either case, enable men to utilize natural powers in furtherance of their more ultimate aims. The making of capital is an *intermediate* step in production, so that *waiting* (and, therefore, *saving*) is necessary, and capital may advantageously be thought of as "*intermediate* goods".[11]

With a correct theory of the causation of interest, the student of economics cannot but realize that, if capital is productive, such productiveness is a quality of all forms of capital. He understands that capital of any kind can come into existence only as there is saving. He sees, therefore, that saving and investment constitute a contribution to production in the same sense that labor is a contribution, *viz.*, that such saving and investment add to the total output of industry. He is no longer likely to be confused by the assertion that planes and factories differ from fruit trees and livestock in their inability to make any net contribution to the interest fund. He is unlikely, because of any such confusion, to begin flirting with the philosophy of socialism and so to decide that, if such capital as planes (and the saving without which it would not come into existence) earns no interest, probably all net return on capital is exploitation (the "surplus value" of Karl Marx).

In his theory of the causation of interest on capital, Henry George is indeed vulnerable, as not a few of his sincere admirers have felt. But when we substitute for his aberrant theory of interest a correct theory, we find we have not at all weakened the case for the public appropriation of the annual rental value of land, to the promotion of which Henry George devoted so much of eloquence and logic during so many years of his life. On the contrary, we thus make our case clearer, more sharply defined and more persuasive than before.

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1 The following seven paragraphs, which first appeared in the late Joseph Dana Miller's *Land and Freedom*, are now part of §5 of Chapter XII of my *Basic Principles of Economics*, second edition, Columbia, Mo. (Lucas Brothers), 1947.

2 But see note at end of this paper.

3 Book III, Chapter III.

4 *Ibid, p.* 180. *Page references are to the fiftiet anniversary edition, New York (Robert Schalkenbac Foundation)*, 1946.

5 *Ibid, p.* 178.
6 *Ibid, p.* 182.
7 *Ibid, p.* 183.
8 *Ibid, p.* 184.
9 *Ibid, p.* 181.

10 *Ibid, pp.* 183-4.

11 *Goods in process of manufacture and finished goods in the hands of dealers may properly be included among "intermediate goods." The process of production is still not completed. There is still "waiting" to be done.*

NOTE: A complete theory of interest on capital would, of course, go much further than has been done in these paragraphs. In particular, it would have to develop the principle of diminishing returns and the related principle of "imputation." These principles I have explained in *Basic Principles of Economics* (2nd edition, Lucas Bros., Columbia, Mo., 1947) for interest, wages and rent. There is a partial explanation as regards interest in Chapter II of *The Teaching of Economics* (Schalkenbach, N. Y. City, 1948).

The total product of industry would be reduced to zero if there were no labor. There could obviously be no product if there were no land. There could be a little—but, indeed, it would be *very* little—product if there were no capital whatever, not even sticks, to work with. Presumably because there would be no product at all without labor, the socialist contends that "labor produces all value." Because there would be *almost* no product without capital (and, therefore,