The Positive Theory of Capital and Its Critics

Author(s): E. Böhm-Bawerk

Source: *The Quarterly Journal of Economics*, Jan., 1895, Vol. 9, No. 2 (Jan., 1895), pp. 113-131

Published by: Oxford University Press

Stable URL: https://www.jstor.org/stable/1885595

THE

QUARTERLY JOURNAL

OF

ECONOMICS

JANUARY, 1895

THE POSITIVE THEORY OF CAPITAL AND ITS CRITICS.

I.

PROFESSOR CLARK'S VIEWS ON THE GENESIS OF CAPITAL.

THE American public has kindly given to my theory of capital, which appeared a few years ago, more than ordinary attention. I look upon the numerous critical attacks which have been made in American periodicals, either upon my theory as a whole or upon details of it, as by no means unwelcome evidence of this attention. In spite of repeated requests I have until now refrained from replying to these criticisms. My own time and strength have been taken up with other matters; and I wished further to let some time elapse, so that the public as well as the author might return to the subject with less bias and more calmness than usually characterize the first heated utterances. Since, too, the critical reviews of my theory have appeared with almost undiminished frequency even down to the present moment, I may hope to find still some interest manifested in the subject. Turning now, as time and opportunity offer, to answer some objections most worthy attention, I will remark that I do not pretend either to answer all the objections raised or to observe any systematic or chronological sequence. In this article I wish to take issue with an opponent whose views I am wont much oftener to share — as, I may add, it is my greater pleasure to do — than to oppose. Unfortunately, however, his attack, as chivalrous in spirit as it is subtile in thought, makes it plain to me that as regards the theory of capital we are diametrically opposed to each other, — to be sure, in one point only, but this is a point of fundamental consequence in the whole conception of the matter.

In his ingenious article on "The Genesis of Capital" * Professor Clark makes the serious charge that I have, through my conception of capital, "side-tracked" the whole theory of capital. The trouble is held to lie in this: that I have failed to make a certain distinction which he thinks one is bound to make. One is bound to distinguish, namely, between "concrete capital goods" and "true capital" itself. Capital goods are the concrete instruments of production; that is, raw materials, machinery, tools, and the like. True capital, however, is a "permanent fund" distinct from these, a "sum or amount of productive wealth." The concrete capital goods are replaced, are consumed, or worn out, whereas the true capital abides. Indeed, they must be replaced and used up, that the true capital may abide. Let us quote from Professor Clark, in order to make his somewhat subtile distinction clear: —

The raw materials in a workshop are, in time, finished, sold and used up by customers. Tools and machines are worn out and replaced. True capital abides, because the things that at any one instant constitute it do not abide. Stop the selling of goods and the

* *Yale Review*, November, 1893, pp. 302–315.

wearing out of tools, and you waste true capital. Lock up the mill and the full warehouse, and you ruin the owner. It is clear that, in scientific study, we cannot confine our attention to capital goods, and we certainly cannot treat them as equivalent to true capital for purposes of analysis. [Again,] a waterfall consists in particles of water. Can one say the same things of the fall that he does of the water? The water moves; the fall stays where it is. The water appears in globules condensed in the atmosphere, and it ultimately merges itself in the sea. The fall does not appear nor disappear. Capital goods are, like particles of water, vanishing elements. True capital is like the fall; it is an abiding element, owing its continuance to the constant wasting and replenishing of its substance.

My mistake is that, in explaining interest, my expositions always relate to concrete capital goods and treat them as identical with true capital. The cardinal principle upon which I base my explanation of interest — namely, that present goods have a higher value than future goods of like kind and quantity — appears to Professor Clark to be "the wedgelike end of the switching-rail that takes the wheel of the scientific car from the rail on which it belongs." According to this principle, he declares that concrete capital, goods,— for example, a driving-horse or pleasure-carriage of 1893 — must be compared with concrete goods of the same kind,— that is, with a driving-horse or pleasure-carriage of 1894. Professor Clark thinks, however, that the things compared with each other in actual practical life are not identical concrete goods, but "sums of wealth." "We do indeed compare a *sum of wealth* existing to-day with a like sum to be used later," but the two sums "at the two dates represent quite different goods."

To prove his statement and to refute mine, he cites the case of a "typical capitalist" who has saved two hundred dollars in the course of the year, and is considering whether to "capitalize" the sum or not. Professor Clark holds that, according to my theory, the capitalist must proceed as follows: —

From the income of a period now closed he defrays the more necessary expenses of that period, and finds, say, two hundred dollars remaining in his hands. He may use this as he likes, and concludes that, if he spends it now, he will buy the driving-horse of the illustration. He further decides that he will actually spend it at a future time,—say at the end of a year,—and *for that identical thing.* The prospective horse is to-day worth a hundred and ninety dollars; and the rate of interest is five per cent.

Really, thinks Professor Clark, the capitalist will proceed altogether differently. For the sums saved are never, as a matter of fact, spent for the identical goods for which they would have been spent, had the saving not taken place. For either the capitalization is a genuine, permanent one — and in this case the capitalized sums never are spent at all — or it is only a *quasi* temporary one, a saving "for a rainy day," and in this case there will be purchased in the moment of need articles totally different from those which the man saving denies himself at the present moment. He denies himself luxuries. He will purchase necessities. In all cases there is a comparison, not between present and future goods *of like kind*, but between present and future "sums of wealth."

So writes Professor Clark. If I would, I might make my reply simple. I might limit myself to showing that Professor Clark's attempt to refute my theory by reference to a concrete case is based entirely upon a misunderstanding of my theory,— a misunderstanding for which I think I am not responsible. For I interpret the concrete case of the "typical capitalist" with two hundred dollars savings exactly as does Professor Clark. The latter is perfectly correct. Surely, the man who saves will not deny himself a driving-horse in 1893, in order to buy himself just such a horse in 1894. Either he will in the future consume only the interest or, if on a "rainy day" he must spend the saving, he will spend it for more necessary or useful articles. My theory also teaches exactly this. According to it the man who saves will weigh whether the two hundred dollars will have a greater value for him if consumed now as "present dollars," or if reserved for later use as "future dollars." * It is evident that in the first half of this valuation the man who saves will consider the marginal employment which he would have for the two hundred dollars at the *present moment;* in our case, the use which the possession of a driving-horse would be of to him. But this, too, upon which I have dwelt repeatedly,† is self-evident: that in the second half of this valuation, in the weighing of the "future goods," the man who saves will consider, not the state of his needs at the present moment, but the relation between demand and supply in that *future period* in which the sum of wealth in question will be used. Therefore, the man saving for a rainy day will take as the basis of his valuation those necessary wants for the satisfaction of which he will use the two hundred dollars in the future moment of need; and the "true capitalist" in an analogous way will estimate the value of the future interest returns by the various necessary or useful articles which, according to the state of his total income at the future periods in question, will lie for him on the margin of the attainable.

How, on the other hand, Professor Clark came to the odd conclusion that, according to my theory, the man who saves can take into consideration for the future nothing else but the worth of a driving-horse, and that the amount saved must be henceforth forevermore devoted to the purchase of such a horse, is a mystery to me. This conclusion seems to me really to have no foundation either

* Strictly speaking, the example chosen by Professor Clark is not a case of comparing present and future *goods*, but only one of comparing present and future *uses* of one and the same sum of wealth. But, since the decisive ideas are the same in both cases, I am perfectly willing to test my theory by this example. I have therefore given the example the form best suited to this purpose.

† *Positive Theorie*, pp. 245 and 247.

in his example or in my theory. Not in the example; for in that the "concrete present goods" which are to be saved are not a driving-horse, but two hundred dollars. And, in my theory, such an understanding of the matter could find justification only if I were to teach that in the comparison of present and future goods there must always be taken into consideration an identical use for both. But, as already stated, I teach the very opposite of this. According to my theory, the superiority of present over future goods is based upon the very fact that one can, as a rule, make a *different* and, indeed, more advantageous use of goods now present than one can make of an equal quantity of goods which are not to be at one's disposal until some future moment.

Clearly, my conception of capital, at least in this example which Professor Clark selects for its refutation, has not the dangerous quality ascribed to it of shunting science off on a wrong line. My conception leads quite directly to the conclusion which Professor Clark pronounces correct. But I will not stop with this example. I think I can give assurance that my conception is not more misguiding in any other case. By means of a few words of explanation I hope not only to prove this, but at the same time to bring into strong light the error to which Professor Clark seems to me to have fallen victim in his polemic.

Professor Clark declares expressly * that his objection is not to the recognition of time as an element in the problem of interest. In the proposition, which he attacks so sharply,—namely, that present goods are worth more than future goods of *like kind and quantity*,—it is more especially the last Italicized words which arouse Professor Clark's opposition. But what is the significance and force of these words? Why do I add at all to my proposition that present goods on the great average are worth more

* *Yale Review*, November, 1893, p. 303.

than future goods — a proposition with which, most probably, Professor Clark, too, is ready to agree — the further qualification that excites his dislike and misgivings? namely, that they are worth more than future goods of "*like kind and quantity*."

Simply because, without the second half of the proposition, the first half would be neither intelligible nor complete. What, indeed, is the thought to be expressed? It is the superiority which the difference of time gives to present over future goods. Now, every one will admit that the circumstance of present *diamonds*, for example, being worth more than future *pebbles*, has as little to do with this superiority as has the circumstance that *two thousand* present dollars are worth more than *one thousand* future dollars. On the other hand, this superiority is most nicely tested and expressed in the statement that one thousand present dollars are worth more than one thousand future dollars, or that ten present tons of iron are worth more than ten future tons of iron. In other words, to express clearly and correctly the superiority which difference of time gives present goods over future goods, one must compare things of *like kind*,— for example, dollars with dollars, and not diamonds with pebbles,— and of *like quantity*,— one thousand with one thousand, and not one thousand with two thousand. It is this supplement, as harmless as it is logically essential, that I intended to make in the addition to which Professor Clark objects, "goods of like kind and quantity."

I add that I do not believe that this supplement can be expressed equally correctly in any other form. Especially would it be inadmissible — and Professor Clark perhaps had this in mind — to place over against each other like sums of *value* instead of like sums of *wealth*. For, in order to express the superiority of the present sum of value, one would have to make the logically inconsistent assertion that a certain present value is *greater* than an *equally great* future value, a proposition which, as to logical correctness, differs in no wise from the familiar, facetious thesis that a pound of iron is heavier than a pound of feathers.

It is time now to pass from the defence of my own position to the attack upon that of my honored opponent. I have just said that *perhaps* Professor Clark had in mind the inadmissible form of comparison cited. I can assert nothing definite here, since Professor Clark on this question avoids precise statement, and by preference employs vague terms which admit of double interpretation. He speaks of a "sum of wealth" or an "amount of wealth." This may mean as well an amount of goods as an amount of value. But I think I can under these circumstances maintain with certainty that, if Professor Clark would force himself to a precise definition of his meaning, he would have to assert either exactly what I assert or something positively false. For either he means by his amount of wealth an amount of goods — and in this case, if he is to demonstrate the superiority of present goods, he must necessarily have reference in both halves of the comparison to goods "of like kind and quantity" — or he means an amount of value, and then the assertion that a definite present value is greater than an equally great future amount of value contains the self-contradiction just criticised.

I would say the same of the whole conception of capital which Professor Clark opposes to my conception as a supposed improvement. It is related that Caliph Omar, after the conquest of Alexandria, had the celebrated Alexandrian Library burned, saying, "Either the books contain only what the Koran contains, and so are superfluous, or they contain something else, and are therefore harmful." I believe the saying of Caliph Omar may be turned aptly against Professor Clark's new theory. Over against the concrete capital goods Professor Clark wishes to put a "true capital" which shall differ from those goods as does the waterfall from the falling water. Now, I know no capital other than the concrete goods which constitute it; and I believe the world of facts knows no other. Everything accomplished by the so-called capital in the world of mechanics and commerce is accomplished solely by the concrete, useful capital goods — or it is not accomplished at all. Therefore, science, whose business it is to hold up the mirror to the world of reality, must have reference to concrete capital goods in all explanations in which it attributes any influence at all to capital, if it would not offer fancies in place of genuine explanations. Calling anything other than the concrete capital goods by the name of capital is either to use a mere figure of speech or to assert something positively false. For the purposes of science this figure can at least be dispensed with. The figure also becomes dangerous the moment one ceases to be aware that one is using a mere figure of speech.

To repeat, the figure at least may be dispensed with. Professor Clark is mistaken in thinking that his conception of true capital is necessary to express any scientific truth which could not be expressed as well, and even better — because more naturally — by the aid of the conception of concrete capital goods. For example, he lays great stress upon the fact that the goods which constitute capital are being constantly replaced, whereas the sum total of capital abides. This is perfectly correct. My theory, too, recognizes and states this fact, just as does that of Professor Clark. But I do not understand why one needs a new conception of capital to express it. It is expressed perfectly correctly and exactly by saying that the total value of all capital goods is maintained unchanged through the constant replacement of pieces used up or destroyed by means of new pieces of equal value.

Not only is this form of expression as correct as Professor Clark's proposition that "capital has remained unaltered"; it is a more correct mode of expression. As appears, for example, where the renewal of the capital goods used up takes a false or one-sided turn, and so prepares the way for a partial overproduction and a crisis, which, however, is not as yet felt in the market. Here the sum of values of the capital goods may remain for the time being unaltered; and Professor Clark, who calls this sum of values capital, must consequently, to be consistent, say "Capital has remained unaltered." As a matter of fact, however, a very real change has taken place in the capital,— a change of which the pernicious consequences are soon enough manifest in the approach of a crisis. Of course, Professor Clark himself will not deny this, but will probably explain that his proposition, "Capital has remained unaltered," should not here be taken quite literally. Thus, however, is made plain just what I wished to show; namely, that this proposition is nothing more than a misleading figure of speech which cannot be taken literally.

In the example just discussed the danger that one may go astray is not great, because the truth reveals itself too clearly. In some of its applications, however, Professor Clark's figure of speech is less innocent, as when Professor Clark asserts repeatedly, with great emphasis, that true capital is never encroached upon. The bare fact upon which this assertion rests is simply that all concrete capital goods are at some time expended or consumed, but that the capitalist always creates a new sum of wealth equal to the amount of capital goods used up, so that the final effect in one sense is as if he had not expended any of his capital. For example, a cloth manufacturer consumes 100,000 dollars' worth of wool, coal, and machinery in the production of 100,000 dollars' worth of cloth (with a profit of several thousand dollars additional), sells the cloth for that sum, and with the proceeds procures a new stock of wool, machinery, and fuel, equivalent in value to the stock consumed. When one goes with Professor Clark into such an account of the matter, the assertion that capital is not consumed is seen to be another inexact, shining figure of speech, which must not be taken at all literally. Any one taking it literally falls into a fatal error, into which, forsooth, science has already fallen once. I refer to the familiar and at one time widely disseminated doctrine that saving is a social evil and the class of spendthrifts a useful factor in social economy, because what is saved is not spent and so producers cannot find a market.

In justice to Professor Clark be it said that, though he has in his theory, as it were, invited others to make this error, he has not himself fallen into it. But there are, nevertheless, positive errors into which Professor Clark allows himself also to be beguiled by his own figure of speech. Jevons and I have maintained that the peculiar character of capitalistic production lies in this: that a certain space of time, a certain production-period, elapses between the application of labor and the attainment of the finished product. Professor Clark thinks that this is true only of concrete capital goods, and not at all of true capital. Of course, a man must wait a certain time if he wishes to work up a raw hide into a concrete piece of leather, and that on a concrete machine into a concrete pair of shoes ready to be drawn on his feet. Since, however, in that permanent fund which true capital represents there are always on hand shoes in every stage of completion, the laborer can, without any waiting at all, procure forthwith a pair of shoes ready-made which are the virtual product of his own industry. Upon these observations Professor Clark thinks he can rest the proposition which he declares with great emphasis, over and over again; namely, that true capital — in contrast with concrete capital goods — has no production-periods, but on the contrary "annihilates" production-periods. It has the power to "synchronize all industry and its fruition." "Industry and its fruition are simultaneous." "To-day we work, and to-day we eat; and the eating is the effect of working." And, to give his idea the greatest possible sharpness of expression, Professor Clark with strong emphasis designates the ready-made goods obtained on the spot and without any waiting by the laborer as the "*true* and *immediate* fruit" of his labor.*

Upon this sentence I pronounce once more my former judgment. It employs a figure of speech wholly wanting in scientific accuracy and misleading. The bit of truth involved in it, as Professor Clark will, surely, willingly grant me, is clearly enough set forth in my theory, and, plainly put, it is as follows: a laborer who in the year 1894 dresses a hide, out of which in the year 1895 a pair of shoes will be made, can in the year 1894 in immediate exchange for his raw product, leather, obtain a pair of shoes ready-made, *if* and *because* there was on hand in society in the year 1894 a separate stock of concrete capital goods in more advanced stages of production, out of which to create in the year 1894 a pair of finished shoes. I lay stress particularly upon this, that to make possible the above exchange there must be on hand *concrete capital goods of a definite sort*. Professor Clark's "permanent fund" may be ever so large; but were it to contain no concrete capital goods that could be worked up into shoes, obviously the currier could not obtain a pair of ready-made shoes at once, but must wait until the shoes made out of *his* leather are forthcoming. Professor Clark's figure of speech therefore leads away from the truth in two particulars: production-periods are not at all "annihilated," but make themselves on occasions very keenly felt; the fact that one is at once provided with

* *Yale Review*, November, 1893, p. 312.

commodities whose own production-periods, because begun earlier, are sooner brought to an end than the production-periods of the unfinished products given in exchange, is the happy consequence of the existence, not of any mystical permanent fund, but of those very concrete capital goods whose periods expire earlier.

Again, a third time Professor Clark's figure of speech leads astray when it is laid down with special stress that the finished commodities, which the laborer obtains in exchange for his own raw, mediate goods, are the "*true* and *immediate* fruit" of his labor. The true and immediate fruit of his labor is the leather he has tanned, and nothing else. The finished shoes, made by another laborer out of leather prepared by others still, are the fruit of strange labor and are acquired immediately by the producer of raw materials only in exchange for his own true product. As is well enough seen and felt when either production or distribution is so blocked that the true immediate product becomes unsalable! By the way, I should make no objection whatever, were Professor Clark content with remarking that the products which the laborer obtains through exchange may be looked upon as, in a certain but less literal sense, *also* the fruit of his labor. Such an observation, for example, would be quite in order, as a refutation of the economically unsound notion that "the laborer eats his master's bread." When, however, Professor Clark sets up his thesis avowedly in confutation of the opinion that the product of the laborer is completed only after the lapse of a certain period; when in this connection he holds the commodities obtained through exchange to be the *true* and *immediate* fruit of the laborer's exertions; and when, further, for this way of thinking he claims the monopoly of "scientific" thinking,—he places himself, as I believe, in direct opposition to the facts in the matter and to scientific truth.

It is very significant that Professor Clark finds himself forced to make one concession whereby he really gainsays his whole theory. Accustomed to take a wide survey of facts, he could not overlook a group of facts which very palpably did not come under his rule. In the following note he has in mind this group: "In a dynamic condition of society industries are often started that are wholly new. In these cases some time is required before any goods are ready for consumption, and during this interval owners must wait for their expected products. After the series of goods in various stages of advancement has once been established, the normal action of capital is revealed. Thenceforward there is no waiting."* Here, then, Professor Clark instances an exception to his rule. Let us look at this exception somewhat more closely. Above all, note that the exception has a much broader application than Professor Clark declares it to have. For it applies not only to industries newly set up, but to old industries as well, whenever the quantity of a certain product is to be increased,—for instance, to meet a growing demand. When, for example, the normal production of an article has in the past amounted to 30,000 pieces a year, and that amount is to be raised to 40,000 pieces a year, clearly there are ready at our immediate disposal only 30,000 pieces; and for the additional 10,000 pieces obviously we must wait until the whole production-period of the 10,000 pieces has expired, be that period long or short, as mechanical conditions determine.

How, I ask then, according to his theory, will Professor Clark explain away this exception to his rule? If true capital really is, as Professor Clark avers, a thing different from concrete capital goods, and possesses in contradistinction to these the power to "annihilate" production-periods, why does it manifest this its peculiar power only in a normal, unprogressive state of affairs, and not also in a dynamic economy? I do not know what Pro-

* *Yale Review*, November, 1893, p. 312.

fessor Clark will say in explanation. To me the matter appears quite clear and simple. Professor Clark's true capital is a mystical conception, manifesting the virtue ascribed to it neither under dynamic nor static conditions. In a static economy the inaccuracy of the Clarkian theory is not palpably exposed for this reason,—that here it is not put to the test. For in a static economy everything runs smoothly because of the harmonious interlocking of the production-periods of the concrete capital goods existing in various stages of completion and *by virtue of these very goods*, just as everything would go on were Professor Clark's theory really true. In any interval of time the concrete production-periods closed are just as many as the new ones begun. So it comes about that at any one time just so many finished products are turned out as enable each producer to exchange his own raw product immediately for the finished product of another's labor. One may therefore, if he will, with theoretical inaccuracy but practically with impunity, imagine that, through some mystical quality of true capital, production-periods have been quite done away with in the world, so that one harvests as the "true and immediate fruit" of one's *own* labor a something brought to maturity with magic despatch; exactly as I may with theoretical inaccuracy but practically with impunity, ascribe to a talisman worn about my neck the power to save me from drowning so long as I take care not to go in the water. As the power of the talisman is really put to the test first in the water, so is the power of true capital first in a dynamic economy. Here, where concrete capital goods are, as it were, changing their stratification, and production-periods no longer interlock in a perfect circle, it might be demonstrated whether or not true capital has the power ascribed to it, the power to do away with production-periods. Now, Professor Clark, in the example cited above, concedes that his true capital cannot stand this test. Is it, then, an injustice to place this true capital in the same category with the talisman which preserves from drowning only upon dry land?

A theory not borne out by the facts cannot be saved by a metaphor, not even by a metaphor so ingenious and alluring as Professor Clark's waterfall and the single drops of falling water. I believe, too, that on stricter analysis this metaphor itself turns against him, as well as the facts of economic activity. I believe that science has as little need in scientific exposition of a conception of a waterfall different from the conception of falling water as it has for a conception of true capital different from the conception of concrete capital goods. Any physicist would smile, were one to tell him that any of the physical or mechanical effects produced by the waterfall — for example, the driving of the mill, the generation of electrical power, the wearing out of the rocky bed — were not produced by the concrete falling drops of water, but through an apprehensible entity different from these, the "waterfall." Whatever the concrete falling water does not effect is not effected by the "waterfall." If by a sudden heavy gust of wind or a displaced stone a single wave of the waterfall is forced somewhat out of its course, so that no "concrete water" strikes the floats of the mill-wheel placed therein, the mill stops, although the waterfall as a whole has been neither moved from the place nor dried up, nor even lessened in volume.

I have in these lines inveighed at such length and so fiercely against Professor Clark that a false impression might easily be given of the general bearing of our respective opinions, did I not add some further remarks. For I believe we very nearly agree on most concrete questions connected with the theory of capital. I believe that Professor Clark is inclined to concur with me in many concrete deductions from my theory of capital, especially after some misunderstandings are explained;

and on my side I can say that I am in full agreement with many of Professor Clark's positive asseverations. Thus I can subscribe almost word for word, especially to the three theses — laid down by Professor Clark at the end of his article — concerning the real character of the "abstinence" undergone by the one who saves, and concerning the weighing of present assured satisfactions given up against less certain future enjoyments spread through a longer interval of time. And I may add that it is ever a genuine satisfaction to me to find myself in agreement with an author whom I esteem so highly.

But whence comes this strange unison in the midst of dissent? I believe it is owing to an excellence in my esteemed opponent to which I have already once adverted; namely, to his extraordinarily shrewd observation of facts. He has, I think, set up an unfortunate general concept; but his own fine scientific tact happily always keeps him at least from drawing those deductions from his generalization which would bring him into conflict with facts. Arrived at the danger point, either he breaks off his deductions or he evades the issue, as we have seen, by instancing an exception. With himself the error involved always remains a purely Platonic, academic error.

Unhappily, however, it does not remain so for science as a whole; and this it is that has led me to join issue, first and so positively, with the writer among all my critics whose doctrine differs perhaps least from mine in its consequences. In him I combat above all else the dangerous example through the imitation of which his less adroit and wary followers will, or would, do far more harm than he himself. Professor Clark is not the first to seek a conception of capital distinct from the real concrete goods of which capital, in fact, consists; and I fear he will not be the last. He has had forerunners in every decade of this century and among most diverse peoples,— in J. B. Say, in Hermann, in MacLeod, in the Germans Kühnast and

Schellwien, and probably in many others too. There seems to dwell in the human heart an enervating proneness for playing the poet in matters of science, and for placing by the side of the common natural things and forces with which we have to do in the world of prose visionary doubles in the form of all sorts of mystical beings and powers, to which a semblance of reality is imparted by means of an "elegant" abstraction. I hold this practice to be fraught with greatest danger to science. If one departs from the bare truths of nature by only a hair's breadth, scientific accuracy of thought is irretrievably lost; the sway of truth gives place to that of words and sounding phrases. I have expressed my opinion on this subject repeatedly, and without reserve, in my work on Capital and Interest,* and I feel bound at this time to repeat it with the greater stress, because I esteem more highly in other matters the authority of the eminent scholar who believes it necessary on this question to take a stand diametrically opposed to mine. It is, indeed, a difference of opinion almost grotesquely intensified, as to which science must judge between us two. Professor Clark has shown such kindly appreciation of all that I have written concerning capital except in this one point only. At this very point, however, he believes that I have turned the whole doctrine of capital into a wrong course. On the other hand, I would believe that, if any modest excellence

* See, for example, the *Positive Theorie*, p. 58 *seq.;* still more emphatically in a passage of my *Geschichte und Kritik der Kapitalzinstheorien* (p. 484 *seq.* of the German edition) not contained in the English edition of this work. The notion was involved also in the criticism of a theory of interest recently brought out by the German Schellwien. As I did not imagine that this theory was familiar to the English reading public, or of special interest to it, the whole paragraph referring to the matter was, in accordance with my wish, left out of the English edition. I am almost inclined now to regret this; for Schellwien's theory gives an illustration as instructive as, to my mind, it is deterrent of a case where Professor Clark's fundamental idea, that capital itself must be differentiated from the capital "goods" of which capital is made up, is used as the basis of reasoning by a somewhat less careful and circumspect writer than Professor Clark.

attaches to my work on the theory of capital, it is this, that I have endeavored to place the conception of capital upon a sound, natural basis,— to write, as it were, a solid natural history of capital in place of a mythology of capital.

E. BÖHM-BAWERK.

VIENNA.