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UNEMPLOYMENT AND WAGES

A critical review of Mr. KEYNES' theory  
of unemployment

By YASUMA TAKATA

1.

One prominent feature of economic theory in recent years is that unemployment has come to claim attention as one important issue. This is presumably because, as the unemployment problem pressed for urgent attention subsequently to the *post-bellum* depression, the necessity arose for a fundamental analysis of unemployment in formulating a pertinent unemployment policy. But it would appear that the further the theoretical study of unemployment is pushed and the more elaborate becomes the research, the more defects the line of argument taken reveals. To be candid, no economist of any school — the orthodox school especially — has so far been able to give a convincing theoretical exposition of the fact of unemployment. I honestly believe that I am not guilty of exaggeration in saying this. It is,

indeed, my conviction that no theory of unemployment which is theoretically correct has been advanced by any economist up to the present.

Any student of economic theories is well aware of the strenuous effort now being made by economists of the orthodox school to make an adequate study of unemployment and also of the very elaborate scale on which their theoretical analysis of unemployment is being conducted. Of all the books so far written those by Professor Pigou and Mr. Keynes deserve special mention. Their theories of unemployment are not easy to understand, however, due to the subtlety and the refinement of detail characterising their arguments.

In my opinion, there is only one reason that can account for the fact that all the theories of unemployment so far advanced lack a theoretical ground to stand upon and are, so to speak, like houses built on the sand, and this reason is that the formulators of the theories lack a correct perception of the attitude which the suppliers of labour, that is, labourers, adopt in supplying their labour. In other words, they fail to take into consideration the effects which social position has on the supply price of labour. I believe that not until this factor is taken into due consideration can an infallible theory of wages be established or a faultless theory of unemployment developed. In this sense, what I call a faultless theory of unemployment must be evolved differently from those hitherto set forth, and it will necessarily be inseparably related to my theory of wages. Both must stand or fall together.

2.

Mr. Keynes' theory of unemployment is now attracting considerable attention, and I think that my criticism of it may well serve as introductory to my own theory. The essence of his theory is to be found in his concept of involuntary unemployment.

Involuntary unemployment, as Mr. Keynes calls it, contrasts with voluntary unemployment. Voluntary unemployment means the state of being unemployed because of the absence of the will to work, while, on the other hand, involuntary unemployment means unemployment in spite of the will to work. The latter is unemployment into which one is forced by external circumstances in the social economy. In the former, one has not the will to work, because the marginal disutility of labour, i.e., the pain attending the supply of the marginal unit of labour, is greater than the marginal utility of the wage thereby obtainable. I shall not here dwell on what is called frictional unemployment. We say that there is full employment when voluntary unemployment only exists in society and accordingly employment extends to persons in whom the marginal utility of the wage is equal to the marginal disutility or pain of labour — or, in other words, all people who have the will to work at the existing wage are in employment. If the marginal pain of labour is less than the marginal utility of the wage, that is, if there is a surplus of utility, there will be labourers, outside of those actually in employment, who, despite their will to work, are out of employment. This is what is called involuntary unemployment.

Mr. Keynes says: "My definition (of involuntary unemployment) is as follows:— Men are involuntarily unemployed if, in the event of a small rise in the price of wage-goods relatively to the money-wage, both the aggregate supply of labour willing to work for the current money-wage and the aggregate demand for it at that wage would be greater than the existing volume of employment."<sup>1)</sup> But this definition can hardly be said to be exact, for it merely refers to some case where involuntary unemployment certainly exists but it does not mention the other cases where it exists also. Involuntary unemployment must be that form of unemployment which is the counterpart of voluntary unemployment.

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1) Keynes, *General Theory*, p. 15.

Consequently, it is the class of unemployment in which the disutility of labour is less than the utility of the wage, and accordingly one in which a surplus of utility may be acquired in the event of employment. Mr. Keynes' assertion that "when involuntary unemployment exists, the marginal disutility of labour is necessarily less than the utility of the marginal product," goes to endorse my point of view.<sup>2)</sup>

Mr. Keynes declares that the classical theory of the wage does not admit of the possibility of involuntary unemployment. According to the classical theory, there must always exist the state of full employment, but this is not the case, as there exists unemployed labour which is willing to work at the current wage, that is, involuntary unemployment. Then, what are the premises which have compelled classical economists to reach such a conclusion?

In Mr. Keynes' opinion, the classical theory of employment is based on two fundamental postulates, which are:

1. The wage is equal to the marginal product of labour. That is to say, the wage of an employed person is equal to the value which would be lost if employment were to be reduced by one unit.

2. The utility of the wage, when a given volume of labour is employed, is equal to the marginal disutility of that amount of employment. That is to say, the real wage of an employed person is that which is just sufficient (in the estimation of the employed persons themselves) to induce the volume of labour actually employed to be forthcoming. Disutility must be here understood to cover every kind of reason which might lead a man or a body of men to withhold their labour rather than accept a wage which had to them a utility below a certain minimum.<sup>3)</sup>

So long as these postulates are recognised, the following conclusion will be inevitable: Setting apart frictional unemployment, the volume of employment is determined at the

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2) *ibid.*, p. 128; cf. *ibid.*, p. 10, 289.

3) *ibid.*, p. 5-6.

point where the marginal disutility of labour is equal to the utility of the wage (and accordingly the marginal product). This means that the labour which is outside the scope of employment, namely, unemployed labourers, consists exclusively of those to whom the disutility of labour is greater than the utility of the wage. Mr. Keynes says: "If it were true that the existing real wage is a minimum below which more labour than is now employed will not be forthcoming in any circumstances, involuntary unemployment, apart from frictional unemployment, would be non-existent." But to suppose that this is inevitably the case would be absurd, he further asserts, for more labour than is at present employed is usually available at the existing money-wage, even though the price of wage-goods is rising and, consequently, the real wage falling. If this is true, the wage-goods equivalent of the existing money-wage is not an accurate indication of the marginal disutility of labour, and the second postulate does not hold good.

Mr. Keynes further contends that it is a mistake to suppose that the real wages of labour depend on wage bargains or that labour itself is in a position to decide the real wage for which it works. It is the money-wage which is decided by the wage bargains; the real wage is otherwise determined.<sup>4)</sup>

Mr. Keynes regards Professor Pigou's theory as typical of the classical theory of wages, against which his criticism is directed, but it will be difficult to say that the substance of Professor Pigou's theory which he gives accurately represents the Professor's own views, though I shall refrain from any further remark on this point.<sup>5)</sup> To the first of the two postulates referred to, Mr. Keynes does not raise any serious objection. Nor, it seems, does any economist of whatever school. It is primarily for this reason that I insist

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4) *ibid.*, p. 10-11.

5) Pigou, *Mr. Keynes' General Theory*, *Economica*, May, 1936, p. 118; Hawtrey, *Capital and Employment*, p. 169.

on the necessity of a reform in the theory of wages. Mr. Keynes's contention that Professor Pigou's theory, which he takes to be typical of the classical theory of wages, is based on the second postulate may be disputed, but the fact is quite indisputable that the second postulate constitutes the premise from which many classical economists argue. At the same time, due note must be taken of the fact that there are theories which do not recognise the second postulate — especially the one which takes a given volume of labour to be the only condition in the supply of labour.

## 3.

It seems that Mr. Keynes' concept of involuntary unemployment raises two difficulties in its relation to the second postulate. First, there is no inconsistency in recognising at once the two postulates of the classical school and involuntary unemployment. Secondly, although Mr. Keynes himself denies the second postulate, his theory accepts it, to all intents and purposes.

Involuntary unemployment is the state of being unemployed in spite of a willingness to work at the current wage, and consequently it may be taken to indicate the situation in which there are unemployed persons who are willing to work if the demand for labour increases, even when the real wage falls due to a rise in prices. In this case, a disparity between the disutility of labour and the utility of the wage, that is surplus of utility, is not a *sine qua non*, as Mr. Keynes says. Even though the second postulate fits in with the actuality and the wage finds its level at the point where the utility of the wage is equal to the disutility of labour, if the supply curve of labour runs parallel to the abscissa at this margin, or, in other words, if disutility or pain which most labourers attribute to labour is nearly the same, there must be many labourers, besides those within the margin of employment, to whom utility and disutility are in equilibrium, and who are unemployed though willing



to work at the same wage, since (all other conditions being excluded) the demand for labour is inelastic and a definite quantity at a given wage. And it is not unrealistic to attribute such a character or form to the demand curve of labour. Most labourers are much alike in their customs, habits, culture and tastes, and especially in the standards of living to which they have long been accustomed, and consequently it is fairly to be expected that most labourers should appraise the utility of a given wage and the disutility of labour similarly. Mr. Keynes is, therefore, not right theoretically when he infers from his cognition of the existence of involuntary unemployment that the second postulate is necessarily inapplicable to the actuality. He overlooks one important premise, and in this respect his cognition of the actuality is wrong.

Judging from his definition of the disutility of labour and also from his point of view that wages are determined by bargain for money-wages, Mr. Keynes virtually recognises the validity of the second postulate regarding the actual economy. (1) What is meant by the disutility of labour, to begin with? He defines it as every kind of reason which might lead a man, or a body of men, to withhold their labour rather than accept a wage which had to them a utility below a certain minimum. (2) Next, Mr. Keynes admits, as, indeed, he ought to, that the wages of labour are determined by the wage bargains. He nevertheless takes strong exception to the contention of classical economists that it is the real wage which the workers demand in the wage bargains. In his opinion, it is the money-wage, and not the real wage, which the workers demand. He recognises a resistance to reductions in money-wages in the wage bargains. Once it is recognised that the wage is determined by the bargains between the entrepreneurs and the workers and that the resistance of labour, that is, the demand of labour, operates in its determination, it must be admitted that the workers have reason to supply their labour at the wage thus determined and to withhold it at a wage lower

than that. Since disutility constitutes this reason, the disutility of labour as Mr. Keynes defines it, or, to be more exact, disutility in the estimation of the marginal labour, must be equal to the utility of the wage. There is an obvious inconsistency between Mr. Keynes' definition of the disutility of labour and his contention that the second postulate does not apply to the actuality. This inconsistency is due to his inadequate analysis of the concept of the disutility of labour. What is generalised as the disutility of labour includes different kinds of disutility. His observation that the disutility of labour is less than the utility of the wage applies to some of the constituent elements of the former only, not to the whole of it. What leads Mr. Keynes to be guilty of this inconsistency deserves special attention also.

## 4.

The first postulate presents difficulties too. Mr. Keynes throws over the second postulate for the reason that there actually exists involuntary unemployment. But when unemployment is taken to be a matter of constant existence, on the one hand, and the second postulate is regarded as inapplicable to the actuality, on the other hand, is it possible to recognise the first postulate only? Mr. Keynes' general theory, which throws over the second postulate, fails to give attention to the effect of its exclusion on the first postulate. These two postulate are correlated; they are not capable of separate existence or application. Let me explain this phase of the problem further.

Let us suppose that the second postulate is deleted as untenable, and let us admit that the existence of unemployment is constant. Will the wage, then, be fixed at the marginal productivity of labour? Assuming that the entrepreneur is willing to pay to the marginal labour which he employes a wage equivalent to the marginal productivity the workers outside the employable limits, that is the unem-

ployed, will feel the disutility of labour at a far lower point than the utility which this wage would give them, so that these unemployed workers will offer their labour at a lower wage. This will cause the wage to be lowered to the marginal disutility of all employable labour. It is illogical to recognise at one and the same time, as Mr. Keynes does, the existence of involuntary unemployment and the postulate that the wage is fixed at the marginal productivity of labour. For the wage to settle at the marginal productivity of labour, it is essential that there should be no involuntary unemployment and that the second postulate should hold good. This point deserves attention as a fundamental difficulty inherent in practically all theories of wages hitherto evolved.

In a static state, the wage is fixed at the marginal productivity of labour. This axiom can be accepted, regardless of the recognition or non-recognition of the second postulate. But can it be said that the wage is fixed at the marginal productivity in a dynamic state also? It is possible that from considerations of the future, as, for instance, from the necessity of continuing an enterprise in the sloughs of depression, even at a loss, in anticipation of a revival of business, the employer may pay a given wage, even when the marginal productivity of labour is negative. (A short period being involved, the marginal net productivity of labour is here meant. In this regard, I can refer the reader to the views of Professor Pigou and Mr. Hicks for proof that this treatment of the problem is justifiable.) Nor can it be denied that there are cases where, due to lack of knowledge about the state of the market or because of frictional circumstances such as the play of friendly feelings, the wage is out of accord with the marginal productivity of labour. But apart from these circumstances, let us assume that the productivity of labour primarily determines the demand for labour. In what relationship will the wage and the marginal productivity of labour then stand to each other?

(1) Let it be assumed that the supply price of labour is a pure reflection of its demand price. That is to say,

let us assume that labour has no supply price of its own and that it is supplied merely at the wage in demand. This hypothesis clearly assumes that restrictions on the supply of labour exist in regard to its quantity only. If, in this case, there actually exists unemployment, the wage will necessarily decline to the minimum standard of living, and a reduction made by unemployed labour in the supply price of labour will inevitably affect the labour within employable limits. So long as this is the case, it is absolutely impossible for the wage to be fixed at the marginal productivity of labour.

(2) Let it next be assumed that the supply price of labour is determined by the pain or disutility of labour. Then, the disutility of labour, and accordingly the supply price of labour, cannot come up to the marginal productivity of labour. Though the wage falls short of the marginal productivity the utility of the wage is for workers the utility of all the necessaries of life, which surpasses the disutility of labour, as is easily seen from the fact that practically all workers are willing to work overtime, whenever overtime is required. In such circumstances, unemployed labour will necessarily enter into competition, thus making for reductions in the supply price of labour. Consequently, the wage must tend towards this minimum supply price rather than approach the marginal productivity of labour.

In either of the above-mentioned two cases, namely, when the supply price of labour is assumed to be absolutely passive, and when the supply price of labour is assumed to be determined by the disutility of labour, the proposition that the wage is determined by the marginal productivity of labour will be found absolutely untenable.

(3) In case the supply price of labour is determined, by the requirements of decency, that is, by the demand which labour puts forward in the conviction that unless it is accepted, a decent livelihood (which amounts to disutility in a wide sense) cannot be maintained, the situation, assuming the existence of unemployment, will be as follows: (a) The

wage is determined by the marginal disutility in this wide sense, that is, by the requirements of decency. This occurs where the demand for labour is restricted by certain factors (as, for example, a shortage of investment). In this case, the marginal productivity of labour must be higher than the wage, which, unlike case (2), will be at a level higher than the minimum cost of living. (b) Where there is a sufficient increase in the demand for labour, the utility of the wage is equal to the disutility of labour in the wide sense. Whether there will then be full employment or involuntary unemployment, as Mr. Keynes defines it, depends on the state of the supply curve of labour in the region extending from inside to outside the margin of employment.

In my opinion, the case mentioned in (a) is most typical of involuntary unemployment, but Mr. Keynes does not recognise this. Mr. Keynes holds that the wage changes according to the marginal productivity of labour, and he cannot, of course, recognise the existence of a wage lower than his theory permits. But now can Mr. Keynes, who recognises that the demand for labour is restricted by investment, and who takes the constant existence of unemployment for granted, logically maintain that the wage settles at the marginal productivity?

## 5.

Let me trace Mr. Keynes' analysis of unemployment further. As the factors determining the volume of employment, the marginal propensity to save or the marginal efficiency of capital (the marginal productivity to use the common term), and the rate of interest are mentioned. These are three independent variables, so to speak, while the volume of employment and the national income constitute the dependent variables. Now, let us grant that investment is induced by the relation between the rate of interest, which is determined by the volume of money and the liquidity-preference, on the one hand, and the marginal

efficiency of capital, which is determined by the prospective profits and the physical conditions of the supply of capital goods, on the other. That is to say, let us suppose that the rate of interest is lower than the marginal efficiency of capital and that the investment is carried on, on that account, till the marginal efficiency of capital becomes equal to the rate of interest. In this case, an increase in the investment will be accompanied by an increase in consumption, as the increase or decrease in consumption and the increase or decrease in income take the same direction. The amount of increase in consumption which must accompany a given increase in the volume of saving can be seen by the marginal propensity to consume. This may be viewed in the following way. The amount of the increase in income required for the investment can be known by the propensity to consume. The ratio of the increment of income corresponding to it is called the investment multiplier. When the investment multiplier is regarded as equal to the employment multiplier, we can infer the increment of employment from the increment of the original investment.

The above contention can be put in a different way as follows. The investment increases due to relationship between the rate of interest and the marginal efficiency of capital. This investment ought to be equal to saving, and the amount of income which enables this saving to be realised depends on the propensity to consume. What calls for special attention about this form of theorising is how the rate of interest finds its level. In the classical theory of interest, the marginal efficiency of capital is taken as the demand, and the saving out of the income as the supply, and it is argued that the rate of interest is fixed at the point where this demand and supply balance. In his criticism of this theory, Mr. Keynes says that although this contention is correct when the income is assumed to be fixed, it does not apply where the income varies with the investment. In economy in its true form, the rate of interest must necessarily be determined by circumstances connected with money.

or, to be more exact, by the liquidity-preference and the quantity of money, and investment will be necessarily carried on in consonance with this rate of interest. Where there is investment, there must be the commensurate saving, and an amount of income sufficient to enable this saving to be effected in accordance with the propensity to consume which will manifest itself.

But the above exposition does not show Mr. Keynes' line of argument in this regard to be perfectly clear. The rate of interest is determined by the quantity of money, the volume of investment is determined by this rate of interest, and the amount of saving out of the income corresponding to this volume of investment is determined in accordance with the propensity to consume. How, then, can this saving attain an equality with the investment? Let us assume that saving falls short of investment. The portion to be consumed out of the investment in one period becomes the income of somebody in next period, and the portion to be consumed out of it becomes the income of somebody in the succeeding period, and so on. This also applies to investment in each period. Ultimately, after the lapse of a certain number of periods, income increases to the extent that saving to be made out of it according to the propensity to consume becomes equal to investment. There is thus reason to contend that saving and investment balance sooner or later. I shall not here enter into a discussion of the difficulties which this theory involves, as I have had occasion to dwell on this point elsewhere. Suffice it to say that Mr. Keynes traces the process of the determination of the volume of the employment to the attitude of bankers by arguing that from the supply of money by banks springs the rate of interest, then investment, then income so many times the amount of investment, and then a given volume of employment.

If the rate of interest is thus determined by the attitude of bankers, there ought to be a national income and a volume of employment corresponding to the rate of interest.

This volume of employment is fixed irrespective of the supply quantity of labour. That is to say, it is unlikely that employment will be prepared, or, in other words, that labour will be in demand, to the extent that the so-called full employment is realised. There will be full employment only when the rate of interest reaches a certain height and the volume of employment corresponding to it happens to be just equal to the supply of labour at the existing wage. That is, full employment will exist in such an exceptional case only. From this point of view, Mr. Keynes regards full employment as exceptional, although classical economists regard it as common, and he advisedly calls his disquisition a "general theory" because it is a theory of employment, wages, income, etc., which is capable of wider application. When the volume of employment is given, the wage is fixed at the marginal productivity of labour in employment.

Under such circumstances, the amount of labour to be employed is not, in Mr. Keynes' opinion, fixed by the labourer himself, who will decide attitude by comparing the utility of the wage with the disutility of labour: it is determined by entirely different factors. It therefore follows that there are workers out of employment who estimate the utility of the wage higher than the disutility of labour. This is what is called involuntary unemployment. These unemployed workers are willing to work if the demand for labour increases, even if the real wage may decline. Thus much of a conclusion can be drawn from the given premise. However, we must notice that Mr. Keynes brings the bargains for the money-wage into the picture.

Mr. Keynes denies the validity of the second postulate, and asserts that the attitude of labour is influenced more by considerations of the money-wage than by those of the real-wage, that labour's resistance means the demand for a given money-wage, and that consequently it is possible for the supply of labour to increase with an increase in the demand for labour, even when the real wage declines in consequence of a rise in prices. If the first postulate is



accepted, as it is by Mr. Keynes, and it is admitted that the wage is determined by the marginal productivity of labour, and if, again, the rate of interest is taken to determine the commensurate volume of employment, the real wage ought already to be of a given content. If so, the following points will be raised. (1) Even conceding that the bargains take place due to labour's demand in regard to the money-wage, they are not likely to affect the amount of the wage in any way. To contend that what is determined by wage contracts is equal to the marginal productivity none the less because it is the money-wage, and not the real-wage, which is fixed by them, is to take too much for granted, so long as any function is recognised in resistance on labour's part, that is, in the attitude which labour adopts in that, although it is willing to accept a certain cut in the wage, it refuses to accept a greater cut. (2) if the wage equivalent of the marginal productivity has been secured by labour in the shape of the money-wage, there must exist full employment, and nothing else, for the reason already given. There can be no involuntary unemployment in this case. (3) If the disutility of labour in the shape of the demand or resistance of labour is smaller than the utility of the wage and there actually exists involuntary unemployment, how can such a situation come about? How is it possible to recognise the propriety of the first postulate, when the second postulate is dismissed as irrelevant? If the second postulate is inapplicable, does it not follow that the wage is not determined by the marginal productivity? As already explained, extra-marginal labour, that is, the existence of unemployment, will necessarily rule out such a possibility. (4) Mr. Keynes says that the behaviour of labour, namely, the demand of labour, is for the money-wage, and not for the real-wage, but he does not explain why and how it is so. This important proposition must, therefore, be described as dogmatic. Thus, no causal explanation is offered for involuntary unemployment. As I have already indicated, I lay special stress on the point mentioned in (3).

## 6.

Mr. Keynes' general theory is evolved with a criticism of the classical theory — the classical theory of wages especially — chiefly in view, and he has singled out Professor Pigou's theory as typical of the classical theories of wages. Is it, however, possible to believe, with Mr. Keynes, that Professor Pigou accepts the two postulates referred to? Professor Pigou himself does not accept Mr. Keynes' interpretation, nor does any third party accept it. Mr. Keynes' criticism of Professor Pigou's theory of wages covers a wide range, but confining one's attention to the salient points, it may be summarised as follows: Professor Pigou assumes  $x$  men to be engaged in the production of wage-goods (the term "consumption-goods" may be substituted, though it is somewhat lacking in exactitude) and  $y$  men in the other industries. Although the aggregate volume of employment is  $x+y$ ,  $x+y$  is, after all, a function of  $x$  because there is a certain relationship between  $x$  and  $y$  (see Mr. Keynes' treatment of the investment multiplier). Next, the supply of labour is taken to be a function of the real-wage, and as this real-wage represents the marginal productivity of labour is also another function of  $x$ . If this supply of labour is  $n$ , there are only two conditions indicated by two functions against the three unknowns,  $n$ ,  $x$  and  $y$ , so that they are insufficient to determine the three unknowns. The way to get round this difficulty is to take  $n$ , the supply of labour, to be equal to the sum of  $x$  and  $y$ , which denote the employed labour in the two groups of industries. That is to say,  $n = x+y$ . This amounts to assuming that there is no involuntary unemployment, namely, that all labour available at the existing real-wage is employed. It means that if the supply function of labour changes so that the supply of labour at the same real-wage increases, the demand for the output of the non-consumption-goods industries is such that employment in these industries is bound to increase by just the amount which will preserve equality between the total supply

and the total demand for labour. In other words, it is assumed that the rate of interest always adjusts itself to the schedule of the marginal efficiency of capital in such a way as to preserve full employment. Without this assumption Professor Pigou's analysis breaks down and provides no means of determining what the volume of employment will be. It is strange that Professor Pigou should have supposed that he could furnish a theory of unemployment which involves no reference at all to changes in the rate of interest.

I cannot quite follow the line of argument in the above criticism of Professor Pigou's theory by Mr. Keynes. I am rather doubtful whether his argument is in strict accord with logic, though I can understand his contention that Professor Pigou makes light of changes in the rate of interest, to which great importance ought to be attached in discussing the theory of unemployment. I shall confine my attention to the main points, however, as it is not my purpose either to introduce Professor Pigou's theory of unemployment or to subject it to a comprehensive review.

The second postulate is not recognised in Professor Pigou's theory; that is, the postulate of disutility is not recognised in it. The supply of labour is, within a certain limit, even a decreasing function of real-wage (in this regard, reference may be made to Professor Ragner Frisch's theory), but as its fluctuations are not of importance, he proceeds on the assumption that the number of wouldbe wage-earners, namely, the volume of labour, is given. I do not think that Mr. Keynes' criticism of Professor Pigou's theory is very pertinent, but I am inclined to believe that the same obsession as is observable in Mr. Keynes' theory operates also in Professor Pigou's theory. They are both obsessed with the idolum of the powerlessness of labour.

I maintain that if the second postulate is not accepted, the first postulate does not stand. What warrant is there for assuming equality between the wage and the marginal productivity when (a) the wage is out of keeping with the disutility of labour, and (b) when, under the existing eco-

conomic organisation, unemployment is bound to exist. Professor Pigou's study of unemployment is, as many critics have admitted, an elaborate analysis of the demand for labour, but it practically assumes a given volume as regards the supply of labour. Even where the supply of labour is subjected to a minute analysis, this analysis is one of the supply of labour in individual industries — its elasticity especially. It does not refer to the total supply of labour. So long, however, as the supply of labour is taken to depend on its other uses (demand in other industries), it is a reflection of the demand for labour, and the supply curve of labour must show the reverse side of the demand curve of labour. But so long as the powerlessness of labour is assumed, and the fact is admitted that all labour is so circumstanced as to have to seek a buyer, it is certainly illogical to conclude that the wage is determined by the marginal productivity of labour in employment. It is the obsession of the powerlessness of labour that is responsible for this unscientific conclusion.

Mr. Keynes, who while not accepting the second postulate recognises the existence of involuntary unemployment, cannot logically accept the first postulate. It, therefore, follows that he has no theory of wages, in reality. Professor Pigou, while not accepting the second postulate, assumes a given volume of labour. Does not the non-acceptance of the second postulate and the recognition of the existence of unemployment amount to a recognition of the existence of involuntary unemployment? If not, the existence of unemployment cannot be explained except on the ground of the fixedness or stability of the wage. What does the stability of the wage mean, then? There can be no theory of unemployment which leaves this point unexplained. From this point of view, it may be said that Professor Pigou has no substantial theory of unemployment.