LEIJONHUFVUD'S INTERPRETATION OF THE MONEY ILLUSION

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I. Introduction

One peculiar feature of the evolution of our understanding of the essential characteristics of Keynes' revolution has been the rise to ascendancy at one time of the notion of the pivotal importance of money illusion.[1] In its crudest form it refers to how transactors make decisions on the basis of selected nominal prices and does not take account of changes in the general price level. This is the sense in which it is used here. Money illusion in this context is not intended to embrace all possible reasons as to why the labor-supply equation in not homogeneous with respect to (current) money wages and prices. For example, where monetary injections are temporarily misinterpreted as real, agent-specific, relative improvements in the terms of trade, this is not money illusion in the primitive sense employed here which relies on irrationality. Illusion once shared, with minimum wage laws and obstinacy of union officials, the role of explaining the rigidity of the money wage in the face of unemployment. Perhaps money illusion was seen by neoclassicals as having an advantage over the others in that it had some kind of microeconomic foundation and was untainted by sordid, institutionalist considerations.

The position of money illusion is less clear nowadys in view of the plethora of rival micro-foundations of Keynes' economics, and in particular, Leijonhufvud's dismissal[2] of it spurred no passionate rebuttals from the old Keynesian school. It appears that no one wishes to defend the doctrine of money illusion since transactors nowadays are acutely aware of the nominal-real distinction. You either have to reject Keynes as being irrelevant or search further in The General Theory for other ways to produce an unemployment equilibrium.

That money illusion has held away both in textbooks and in the writings of some historians

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of economic thought can hardly be doubted.[3]

Long ago it was held that Keynes' econimics was of practical value largely because workers in a depression did indeed fail to appreciate that the prices of wage-goods had fallen by more than the nominal wage and would resist cuts. Similarly, during a boom, workers could be deceived and unemployment levels could be set by the social planners at some politically desirable figure of, say, two percent, which could be sustained by government expenditure even if the natural rate of unemployment – in this context, the maximum sustainable in a market system devoid of illusion – was higher. But, when we look at The General Theory, what do we find?

II. Money Illusion in Keynes

The most surprising discovery is that money illusion plays no part whatsoever in Keynes' analysis of the labor market. Workers are fully aware of what they real wage is in comparison to their marginal disutility of labor and are not deceived by a decline in real wages during an upswing. Workers

> do not resist reductions of real wages, which are associated with increases in aggregate and leave relative money-wages unchanged, unless the reduction proceeds so far as to threaten a reduction of the real wage below the marginal disutility of the existing volume of employment.

In other wards, workers fully perceive it if the real wage falls, or is even about to fall, below the marginal disutility of labor. They know what is happening to each. When the real wage falls in the upswing it is with their open-eyed consent, unless it proceeds too far when it is met with open-eyed opposition.[5] Workers are prepared to accept the lower real wage required in the upswing as determined by their lower marginal productivity. Keynes accepted that the real wage was inversely related to the level of activity, because he accepted that the Law of Diminishing Returns would prevail as output grew.[6]

Before attention can be given to the important question of the nature of labor market responses to disequilibrating shocks, some general remarks on adjustment processes are called for.

In a state of confusion and disarray, even if the correct price vector were to emerge miraculously in the absence of an auctioneer, agents simply would not know it to be the appropriate vector. An auctioneer does two tasks. He cries out a vector and he assures agents that this indeed is the mutually consistent and correct one. Leijonhufvud does not suggest, as some have done, that agents in the absence of an auctioneer have in mind a probability distribution and, on average and in the short run, grope successfully, There is no orderly search in his account whereby agents engage in some optimal number of trials to learn of the true state of demand. Such models could be plausible in dealing with small, or microeconomic, shocks, where much of the environment is intelligible, but under more severe forms of dislocation, about which agents know little from past experience, models incorporating risk, as distinct from Knightian uncertainty, could prove mislead-

ing. In the face of large shocks. demand curves are shifting. It is not a simple case, as in Arrow, where agents are merely testing the elasticity of their given demand curves. One can, as does Leijonhufvud, abstain from probabilistic versions of search activity based on perceptions of risk and prospective gain without veering to the opposite extreme, as might some fundamentalists, and to deny that a solution exists even in principle. For all intents and purposes, groping in a darkened room for a black cat which is there but uncooperatively elusive would look to the scientific observer much the same as the groping for one which is in truth not even there. One might sensibly prefer the more radical approach which denies the very existence of the Walrasian vector in an uncertain world and yet feel that to frame an assault on Leijonhufvud in those terms is rather too harsh. Much of interest can be said even if one does not utterly reject Walrasianism.

In any event, it is not clear that Keynes himself gave any weight to either uncertainty or merely imperfact knowledge in explaining how labor markets can in logic settle into a state of involuntary unemployment and how labor markets do in fact behave. Uncertainty to Keynes was a problem in other markets. Workers are only too well aware of their own unemployment. The labor market has a passive role. It responds to uncertainties which rock other markets.

Nevertheless, attempts have been made to understand Keynes' money-wage dynamics in terms of uncertainty.[7] Darity and Horn[8] make the interesting suggestion that the suppliers of labor are themselves uncertain about the appropriate real wage, but in fact Keynes never says that himself choosing instead to emphasize the fundamental point that the nexus between money and real wages is non-existent. Uncertainty is not pervasive, and besides, workers know the current real wage and are willing to accept a lower real wage even if they do not know the Walrasian wage. In Keynes, there is a neutral real wage corresponding to full employment, and it takes on a definite value, the marginal product at full employment. Keynes does not emphasize difficulties in perceiving marginal (revenue) products. On the contrary, he is happy to jump from one comparative-static state to another without giving much thought to the problems of groping. In the General Theory, the real wage's equality to the marginal product is not difficult to achieve. It occurs automatically in flow supply equilibrium in the goods market.[9] Workers resist money-wage cuts, it is true, but not because they are uncertain merely about how far the reduction needs to be.[10] They resist any nominal cuts.

Why then do laborers reject money-wage cuts in a depression even if they are prepared to accept a real-wage cut? Keynes offers two reasons. The first is not theoretically fundamental although it is the one which has attracted more attention, especially in Britain.[11] Keynes[12] suggests that workers that workers guard their positions relative to those of other workers and resist money-wage reductions "which are seldom or never of an all-round character". There is no money illusion here, apparently just some sort of jealousy or pride. Perhaps, as suggested by Leijohhufvud,[13] the remuneration of others is being used as an indicator of one's own marginal revenue product, no direct knowledge of it being possessed by any given laborer.[14] The importance Keynes attached to his alternative objection to Classical thought, which does not opend on money illusion either, remains largely unappreciated. There is "the other, more fundamental, objection"[15].

There may exist no expedient by which labor as a whole can reduce its real wage to a given figure by making revised money bargains with the entrepreneurs.

Leijonhufvud, to his credit, elevates this quotation to a position of importance yet appears to grasp only part of its significance to the microfoundations of macroeconomics. Leijonhufvud[16] rightly emphasises that the dynamics of a monetary system cannot be assumed analogous to one of barter.

The workers looking for jobs ask for money, not commodities. . . . The fact that there exists a potential barter bargain of goods for labor services that would be mutually agreeable to producers as a group and labor as a group is irrelevant to the motion of the system.

Leijonhufvud[17] however, sees no further microeconomic ideas behind what Keynes wrote and argues that the representative worker is engaged in job search and this imparts inflexibility to the money wage in view of inelastic price expectations. He does not consider that they workers themselves might rationally choose not to attempt to counter involuntary unemployment "through a futile competition for employment between the unemployed laborers".[18] If a worker realizes that others will simply retaliate, then the incentive to undercut others largely disappears and the opportunity for a collective truce, policed by the unions, exists. It cannot be said, however, that Keynes clearly had this in mind. He gives us little to go on and seems rather impatient to go onto weightier matters:

Whilst workers will usually resist a reduction of money wages, it is not their practice to withdraw their labor whenever there is a rise in the price of wage-goods. It is somethimes said that is would be illogical for labor to resist a reduction of money wages but no resist a reduction of real wages. For reasons given below (p. 14) this might not be so illogical as it appears at first; and, as we shall see later, fortunately so. But, whether logical or illogical, experience shows that this is how labor in fact behaves.[19]

Keynes notes that such seemingly bewildering actions by unionists can, in part, be explained by the fact that inflation, with constant money wages, does not alter relativities among laborers. He also seems to argue that administrative difficulties would prevent wage earners being able to demand higher money wages whenever the price of a wage-good rose and slightly altered the real wage. The wage could hardly be renegotiated on a daily basis.[20] But he teases the reader by leaving a third option open:

Thus it is fortunate that the workers, though unconsciously, are instinctively more reasonable economists than the classicial school, inasmuch as they resist reductions of money-wages, which are seldom or never of an all-round character. . . .[21]

In other words, even in the rare case where the reduction in the money-wage rate were across-the-board and did not affect relativities, the wage-cut would still be rejected. Workers would have to be forced to accept even a general reduction in the nominal wage-rate even a general reduction in

the nominal wage-rate even if the administrative machinery to make possible a general wage cut were provided.

> It is only when a highly authoritarian society, where sudden, substantial, all-round changes could be decreed that a flexible wage-policy could function with success.[22]

Note also that Keynes is not greatly concerned about how the facts of worker behavior could be explained. Whether their conduct is logical (rational?), or unconscious and instinctive is an open question. Consequently, what Keynes felt to be the microfoundations of resistance to cuts in money wages is uncertain.[23]

One can look at changes in the real wage, assuming that money-wages are not falling, so that the realationship between the real wage and the marignal disutility of labor – the subject of the second Classical postulate which Keynes sought to attack – can be studied in isolation.

If the inability of workers to reduce their real wage even if money wages were flexible downwards, is the fundamental issue, then the difficulties which exist in exactly specifying Keynes' supply-of-labor function can be dispensed with.[24] If workers resisted money-wage cuts it was not because they confused nominals and reals, but it was for a completely different reason. For a discussion of involuntary unemployment, it is the non-resistance to real wage cuts per se which is of direct concern. Money wage behavior in the real world is a different issue.

If money illusion is rejected as an essential property of transactor behavior in the labor market, did Keynes assign any role to it in his analysis of other markets?

If we examine Keynes' views on consumption expenditure we find that habits may, among other things, impart some degree of stickiness[25] but as Leijonhufvud once again rightly points out,[26] workers are free of money illusion. Also suggestive of denying any more than the passing relevance of money illusion is a passage from a draft of The General Theory

> An increment of voluntary saying . . . is only to be welcomed . . . when employment is supra-optimal and earners are finding themselves tricked by the industrial machine into exerting themselves on a scale, the marginal disutility of which is not adequately rewarded by their marginal product – a state of affairs which actually in the modern world is very infrequent.[27]

Keynes' views are illuminated by his treatment of illusion so far as it applies in the industrial sector.

> For a time at least, rising prices may delude entrepreneurs into increasing employment beyond the level which maximizes their individual profits measured in terms of the product. For they are so accustomed to regard rising sale-proceeds in terms of money as a signal for expanding production, that they may continue to do so when this policy has in fact ceased to be to their best advantage; i.e. they may underestimate their marginal user cost in the new price environment.[28]

Keynes is clearly aware of what money illusion is, and expressly gives it a minor and peri-

pheral role in explaining temporary deviations which constitute certain practical qualifications[29] of his basic model.

Further evidence of the unimportance of money illusion can be obtained from his discussion of the determination of interest rates and his dispute with Irving Fisher about whether inflationary expectations could cause nominal interest rates to rise to preserve a real return for wealth holders. Whether Keynes or Fisher was correct is not the issue here. What matters is that Keynes could easily have chosen to resort to the arugument that savers were overcome by money illusion and for that reason nominal interest overcome by money illusion and for that reason nominal interest rates would not rise. Keynes[30] did not, even though he was fully aware of Pigou's argument that borrowers and lenders might at different rates appreciate the fact that the price level was changing.

A conclusion which now clearly emerges is that, while Keynes knew what money illusion was, at no stage did he rely on it in his attack on orthodox thought.

III. Money Illusion in Classicial Economics

Attention is now turned to a remarkable aspect of the controversy between Keynes and the Classicials. Examining writings prior to The General Theory indicates that is was Classical economics where money illusion had a significant role to play. Note that Keynes, rightly or wrongly, considered Pigou and Mill to be major representatives of the Classical school, and money illusion appears in the works of both.

The notion makes an appearance as early as Mill when he sought to identify the limited circumstances in which a geernal glut of commodities could occur. If all classes of producers are enderavoring to expand operations beyond the level which can profitably be sold,

> . . . it is a certain proof that some general delusion is afloat. The commonest cause of such delusion is some general, or very extensive, rise of prices (whether caused by speculation or by the currency) which persuades all dealers that they are growing rich. And hence, an increase of production really takes place during the process of depreciation is not suspected . . . But when the delusion vanishes and the truth is disclosad, . . . they will be likely to repent at leisure.[31]

Pigou certainly incorporated money illusion into his analysis. It played an important role, along with the immobility of labor, in explaining why fluctuations in employment can become pronounced.[32]

> When prices rise, business men become more prosperous . . . Furthermore, besides the real change in their fortunes there is also an element of imagined change. For when people have more or less money than usual, even though prices have changed in precise correspondence, the natural tendency to "think in gold" is apt to make them imagine themselves really richer or really poorer.

Pigou also specifically refers to money illusion in the labor market. He states:[33]

> that the tendency of workpeople to "think in gold" leads them to resist reductions in money wages when prices are falling and to acquiesce in refusals to raise money wages when prices are rising, thus in effect demanding an increase in the rate of real wages in times of depression and assenting to a decrease in times of prosperity.

Pigou repeats that appropriate adjustments to real wages are thwarted by "factors of inertia . . . which . . . in a money economy tend to keep money wages stable. To a great extent people – employers and employed alike – think in money."[34]

In his review of The General Theory,[35] Pigou objects to Keynes' accustations that the Classicals had overlooked how changes in the price level, at a given money wages, alters the real supply schedule of labor. His point was that money illusion matters and he later repeats the claim.[36]

It is also clear that Keynes knew that money illusion was important to Pigou, and he even criticized Pigou for depending on such a limited assumption to justify the fiscal intervention which Pigou had advocated with Keynes ten years earlier.

> I was already arguing at that time that the good effect of an expansionist investment policy on employment, the fact of which no one denied, was due to the stimulant which ti gave to effective demand. Professor Pigou, on the other had, and many other economists explained the observed result by the reduction in real wages covertly effected by the rise in prices which ensured on the increase in effective demand. It was held that public investment policies (and also an improvement in the trade balance through traiffs) produced their effect by deceiving, so to speak, the working classes into accepting a lower real wage, effecting by thie means the same favorable influence on employment which, according to these economists, would have resulted from a more direct attack on real wages (e.g. by reducing money wages whilst enforcing a credit policy calculated to leave prices unchanged).[37]

Consequently, even though Pigou did recommend fiscal policy along with Keynes, his theoretical justification could have differed markedly.[38]

It can be concluded that money illusion sometimes was relied upon by some Classical writers to explain why prices need not adjust to maintain equilibrium at full employment. Keynes plainly knew what money illusion was. He fully realized that is played a significant role in the writings of others, but that is did not in his own.

IV. Money Illusion and Post-Keynesians

What is strange is that theoreticians and historians of economic thought have not viewed the debate between Keynes and Classicals in this light. Instead of an interpretation of Keynes based on money illusion being spurned at its birth, it has been clasped warmly against the bosom.

James Tobin[39] provides an interesting example. In order to protect Keynes' outcome of in-

voluntary in the face of falling money wages, Tobin reasons that money illusion could be extended to all markets. It should be noted, however, that Tobin, in a manner resembling that of his 1972 Presidential Address, treats money illusion in a broader fashion to include such things, other than naive deception, as inelaastic price expectations, ignorance of prevailing states of demand and administrative lags in contractual renegotiations, all of which impede price flexibility.

More striking, however, is Patinkin's[40] extension of money illusion into Keynes' theory of the speculative demand for money.[41] His argument is an involved one, the full details of which cannot be discussed here. Put crudely, Patinkin in maintains that Keynes' failure to clearly and validly distinguish between real and money balances indicates that Keynes felt that money-holders do not draw that distinction either and were therefore afflicted with money illusion. Perhaps Keynes' blurring of the two – accepting that Patinkin's textual evidence does indicate this – suggests mere obscurity and looseness, and one ought not to maintain that a tacit assumption of illusion is the explanation. It might be that in some passages Keynes was tacitly assuming constant money-wages while in others, where the effects of wage deflation were under direct examination, he did not.[42]

One passage is sufficient to illustrate.[43]

> Unless we measure liquidity-preference in terms of wage-units rather than of money (which is convenient in some contexts), similar results follow if the increased employment ensuing on a fall in the rate of interest leads to an increase of wages, i.e. to an increase in the money value of the wage unit.

Keynes clearly indicates that to measure liquidity-preference in terms of wage-units is convenient in some contexts.

Plainly Keynes' model usually assumes constant money wages and only in some contexts (such as examining the effects of money wage cuts on the MEI schedule and the interest rate) considers there to be a need to differentiate real and nominal balances.

Patinkin[44] wonders key Keynes did not recognize that greater real balances can increasingly satisfy the speculative demend for money if that too were measured in real terms. Whether Keynes made a mistake or not in overlooking this – assuming that he did indeed fail to consider the issue – it is not clear that this lapse should be construed as meaning that money illusion in Patinkin's broad sense (let alone in the narrow and primitive sense used here) can be attributed by Keynes to the speculators. It is too strong a conclusion to draw from circumstantial evidence.[45] Keynes' shole theory of liquidity preference bore the marks of being in only semi-finished form, and whether or not he could or would have specified the demand for real balances while preserving the (long-run) non-neutrality of money one cannot say, of course.

Whether or not agreement with either Tobin or Patinkin is ultimately arrived at, it certainly emerges that money illusion is often relied upon to give some insight into aspects of Keynes' arguments found difficult to clearly understand at the literal level. The profession has often and willingly adopted it, yet it is argued that, in its simplest form, Keynes plainly rejected it. It appears that the once official version of the history of economic though is completely at variance with the facts. The problem with Keynes' allegedly naive theory of expectations based on money illusion in the labor market never existed.

V. Concluding Remarks

Leijonhufvud is certainly correct to reject money illusion, but an alternative account of money wage inflexibilities can be offered which has considerably more exegetical support than Leijonhufvud's speculative suggestion about inelastic wage expectations. Not only is money illusion rejected in the labor market. It is rejected as a characteristic of any market. Ironically, it was Pigou who saw it as important, not Keynes.

One final comment needs to be made, To anticipate possible misunderstandings, it is not intended that, by denying illusion and by considering real variables important Keynes is being taken to trivialize actions that use money. Money matters even if agents think in real terms. Labor can think in reals without being able to act in reals. The non-neutrality of money is not being denied.[46] Neither does this stance necessarily prevent the incorporation of the additional problems agents could have in judging appropriate wage offers, in real terms, under conditions of uncertainty. The argument also is fully consistent with the view that agents in money-using systems are unable realiably to effect desired real exchanges even if all parties were aware of the possibility of mutually beneficial real trades.

BIBLOGRAPHY AND FOOTNOTES

1. Edward Shapiro, Macroeconomic Anlysis, Harcourt Brace and World, 1966, p. 220, n.7 attributes the term to Irving Fisher.
2. Axel Leijonhufvud, On Keynesian Economics, 1968, pp. 94-95.
3. Useful references include Gloria Shatto "Was Keynes a Keynesian?", *Journal of Economics and Business*, Vol. 27, No. 1 Fall 1974, pp. 86-88; John T. Addison and John Burton, "Keynes Analysis of Wages and Unemployment Revisited". *Manchester School of Economic and Social Studies*, Vol. 50 March, 1982, pp. 1-23. The former examines textbook interpretations and the latter the role of Leontief in propagating the money illusion interpretation. See also Mark Blaug, *Economic Theory in Retrospect*, Cambridge University Press, 3rd ed., 1978, pp. 675, 686; Mark Casson, *Unemployment: A Disequilibrium Approach*, Martin Robertson, 1981, p. 12; Wiliam H. Hutt, *The Keynesian Episode: A Reassessment*, Liberty Press, 1979 p. 267; *Milton Friedman's Monetary Framework: A Debate with his Critics*, University of Chicago Press, 1974, p. 18; Brian J. Loasby, *Choice, Complexity and Ignorance: An Enquiry into Economic Theory and the Practice of Decision-Making*, Cambridge University Press, 1976, p. 14 and Norman P. Barry, *Hayek's Social and Economic Philosophy*, Macmillan, 1979, p. 171. Even G.L.S. Shackle, *Keynesian Kaleidics*, Edinburgh University Press, 1974, pp. 11, 13.
4. John Maynard Keynes, *The General Theory of Employment, Interest and Money*, Macmillan, 1936, pp. 14-15 (emphasis added).
5. Cf. James A. Trevithick, "Keynes, Inflationand Money Illusion", *Economic Journal*, Vol. 85, March, 1975, pp. 101-113, who refers to Keynes' view that retaliatory increases in money wages under inflationary conditions were unlikely at least if the commodity price-level rose by only 5 to 10 percent. Unfortunately Trevithick fails to cite Keynes. Furthermore, must the cause by money illusion? Possibly the costs of s strike action in those days was too high relative to the prospective gain. James Tobin, "Money Wage Rates and Employment" in Seymour E. Harris (ed.), *The New Economics: Keynes' Influence on Theory and Public Policy*, Dennis Dobson, 1947, p. 3 agrees that workers act with eyes, but he gives no quotations from Keynes to substantiate that view.
6. For example, see Paul Wells, "Modigliani on Flexible Wages and Prices", *Journal of Post Keynesian Economics*, Vol. 2, No. 1, Fall 1979, pp. 85-86.
7. Note that Irgrid Rima, "Whatever Happened to the Concept of Involuntary Unemployment?" *Interna-Journal of Social Economics*, Vol. II, No. 3/4 1984, pp. 62-71, at p. 66, suggests that Knightian uncertainty would be regarded by Keynes as an adequate reason to question probabalistic versions of Job search that occur in logical time.
8. Darity, William A.; Horn, Boobie L., "Involuntary Unemployment Reconsidered", *Southern Economic Journal*, Vol. 49, No. 3 January 1983, pp. 717-733.
9. The equality of the money wage and the marginal revenue product under conditions of flow supply equilibrium in the goods sector implies a real wage paid by all employers equal to the marginal product of workers in the wage-goods sector. Compare Davidson, "A Keynesian View . . . ", op. cit., p. 567, n. 1
10. Meltzer (Keynes' *General Theory* . . . , op. cit., p. 50) validly cites *The General Theory*, pp. 266-267, which indicate that workers are unable to select money wages likely to trigger the Keynes effect on interest rates, but Keynes does not say anthing about whether workers are themselves uncertain about the correct money wage. It is the policy-maker who does not knwo of the reliability of money-wage cuts to simulate easy monetary policy. Compare *The General Theory*, p. 265, where wages and, as a consequence, no clear effect on the MEI schedule results.
11. For example, James A. Trevithick, "Money Wage Inflexibility and the Keynesian Labor Supply Function," *Economic Journal*, Vol. 86 June 1976, pp. 327-332.
12. J.M. Keynes, *The General Theory*, p. 14.
13. Axel Leijonhufvud, *On Keynesian Economics*, p. 96.
14. Don Patinkin, *Anticipations of the General Theory?* And other essays on Keynes, Basil Blackwell, 1982, pp. 137-138 agrees.
15. *The General Theory*, p. 13 Keynes (ibid., pp. 8, 10, 13) uses similar words repeatedly. Victoria Chick, *Macroeconomics after Keynes*, Chapter 7 and Fender John, Understanding Keynes; an analysis of The

General Theory, Wheatsheaf Books, 1981, pp. 10-11 consider that Keynes' fundamental objection deserves greater attention.

16. *On Keynesian Economics*, p. 90.
17. Ibid., p. 95, n. 23.
18. *The General Theory*, p. 196 (emphasis added).
19. Ibid., p. 9.
20. Ibid., p. 14-15.
21. Ibid., p. 14 (emphasis added).
22. Ibid., p. 269. It is admitted that Keynes' wording differs subtly when considering wage cuts by decree. If one were to spilt hairs (e.g., one might say that the word substantial might involve the reduction of the wage to below the marginal disutility of labor and that, on this ground alone, workers would resist, if they were free to do so) one could make counter-arguments. I acknowledge that pp. 265, 267 and 269 contain subtle differences so far as wage-cuts by administrative decree are concerned.
23. Compare Armen A., Alchian's view of how Keynes' definition of involuntary unemployment need not rely on money illusion. If wages were cut everywhere else, and if employees knew it, they would not choose unemployment- but they would if they believed wages were cut just in their current job. Reuven Brenner also finds it hard to understand how money illusion was essential to any of Keynes' arguments. See "Unemployment, Justice, and Keynes' General Theoy," *Journal of Political Economy*, Vol. 87, No. 4 (August, 1979), pp. 839-850, at p. 839, n. 5.
24. See Thomas Tuschscherer, "Meltzer on Keynes's Labor market Theory: A Review of the General Theory's Second Chapter", *Journal of Post Keynesian Economics*, Vol. 6, No. 4 Summer 1984, pp. 523-531; Allan H. Meltzer, "Keynes's Labor Market: A Reply", ibid., pp. 532-539; Irgrid H. Rima, "Involuntary Unemployment and the Respecified Labor Supply Curve", ibid., pp. 540-550. Rima considers that Keynes (*The General Theory*, pp. 8-9) is "remarkably luminous" (p. 542) but it is far from clear (to me) whether Keynes was saying what he himself thought or what he believed a consistent Classical, confronted with the fact that workers do not always withdraw their labor when inflation reduces their real wage, ought to have said. That Keynes always fully understood Pigou also ought not to be assumed. Did Keynes really mean that he believed that the supply curve (as a function of real wages) would shift or just that the quantity supplied would increase? Perhaps Rima is ingeniously rationalizing Keynes' slip of the pen (assuming that she has construed the passage from Keynes correctly). Given a money wage, Rima seems to argue in favor of a supply curve which, when plotted against real wages, is backward bending – a curious outcome indeed.
25. *The General Theory*, p. 97.
26. Axel Leijonhufvud, *On Keynesian Economics*, p. 95, n. 22), cites *The General Theory*, pp. 91-92.
27. *Collected Writings*, Vol. XXIX, p. 111. This could be taken as arguing that workers are seldom tricked or, alternatively, that supra-optimal states themselves are very infrequent. The context suggests the former.
28. *The General Theory*, p. 290 (emphasis added). Note the distinct shift in view by contrast to *Collected Writings*, Vol. XXIX, p. 82.
29. *The General Theory*, ibid., p. 289-290.
30. Ibid., pp. 141-142.
31. John Stuart Mill, "On the Influence of Consumption on Production" in Henry Hazlitt (ed.), *The Critics of Keynesian Economics*, Arlington House, 1977), pp. 24-45, at p. 40. One cannot say that illusion played any important role in Mill on the basis of one quotation, of course. Neither can it be assumed that Keynes was aware of this passage.
32. *Industrial Fluctuations*, p. 165. Collard, op. cit., has argued that in Pigou there are key elements of the rational expectations hypothesis, but, surely, in analyzing the real world Pigou gave greater emphasis to money illusion – and one doubts that Collard would deny that.
33. Ibid., p. 283.
34. A.C. Pigou, *The Theory of Unemployment*, Frank Cass, 1933, p. 294.
35. "Mr. J.M. Keynes' General Theory of Employment Interest and Money", *Economica*, Vol. 3, May, 1936, pp. 115-132, at pp. 118-119.
36. A.C. Pigou, *Employment and Equilibrium:* a theoretical discussion, Macmillan, 1949, pp. 92-93.
37. J.M. Keynes, "Relative Movementsof real Wages and Output," *Economic Journal*, Vol. 49 March 1939. pp. 34-51, at p. 40.

38. The interested reader is referred to the discussion of Pigou for his reasons for relying on fiscal policy rather than money-wage deflation. See Chapter 4.
39. James Tobin, "Money Wage Rates and Employment" in Seymour E. Harris (ed.), *The New Economics: Keynes' Influence on Theory and Public Policy*, Dennis Dobson, 1947, pp. 579-585.
40. Don Patinkin, *Money, Interest and Prices*, Haper and Row, 1965, pp. 637-642.
42. Mark Blaug, *Economic Theory in Retrospect*, Cambridge University Press, 1978, pp. 168, 675. Blaug seems to argue, but Patinkin (*Keynes' Monetary Thought*, p. 119) later writes that money illusion was Keynes' implicit (and I would conjecture, unintentional) assumption. See also Harry G. Johnson, "The General Theory After Twenty-five Years", *American Economic Review*, Vol. 51, May, 1961, pp. 1-17, at p. 9 for Keynes' heinous crime.
42. Furthermore, Leijonhufvud's, *On Keynesian Economics*, pp. 325-329. His sharp attack on Patinkin's failure to see wealth effects in Keynes, whereby reductions of the money wage increases real balances applies downward pressure to interest rates, upward pressure on asset prices and therefore increases consumption, should not be overlooked. This issue is taken up in the chapter on wealth effects.
43. Don Patinkin, *Money, Interest and Prices*, p. 639 citing The General Theory, pp. 171-172 (with Patinkin's emphasis). Neither is Leijonhufvud convinced by Patinkin, but he does not elaborate. See *On Keynesian Economics*, pp. 384-385.
44. Money, Interest and Prices, p. 640-644.
45. John Fender, Understanding Keynes; an analysis of The General Theory, Wheatsheaf Books, 1981, p. 129 seems to argue and does not consider Keynes' oversight to be of significance.
46. These remarks are a response to a comment of an anonymous reader. Compare Hyman P. Minsky, "Frank Hahn's Money and Inflation: Review Article", *Journal of Post Keynesian Economics*, Vol. 6, No. 3 Spring 1984, pp. 449-457, at p. 454, where Minsky expresses his hostility to Hahn's book and his treatment of illusion and neutrality.

Leijonhufvud's Interpretation of the Money Illusion

화폐환상에 관한 LEIJONHUFVUD의 해석

화폐환상이란 대체로 일반 물가수준을 고려함이 없이 거래자들이 특정 명목 가격을 기반으로 의사를 결정함을 애기한다. 오늘날 이런 화폐환상의 개념을 반케인즈 학파의 반발에 의해서 특히 LEIJONHUFVUD의 기각에 의해서 그 위치가 불확실해졌다.

이러한 의미에서 本稿에서는 Keynes의 화폐환상에 대한 견해, 古典經濟學에서 화폐환상에 대한평가, 後一 Keynesian의 화폐환상에 대한 평가를 순서대로 살펴본다.

이자율에 관한한 Keynes는 명목이자율이 상승하지 않는다는 이유로 저축자는 화폐환상에 위해서 압도된다는 주장을 쉽사리 신봉했다. Keynes는 대출자와 차입자가 상이한 이자율에 있다는 Pigou의 논지를 완전히 인식했을지라도 가격수준이 변화하고 있다는 사실도 인식했다.

고전경제학에서도 어렴풋이 화폐환상의 개념이 나타나는 데, 이는 일단의 고전학파 경제학자들이 완전고용의 균형을 유지하기 위해서 가격이 조정될 필요가 없다는 이유를 설명하기 위해 그 개념에 의존했다. 반면 Keynes는 화폐환상이 무엇인지를 정확하게 알았고, 그것이 타인의 논문에서 중요한 역할을 한다는 것을 알았지만, 그 개념이 자신의 것이 아님도 알고 있었다.

이상한 것은 경제사상의 이론가와 역사가들은 이런 식으로 케인즈와 고전학파들 사이의 논쟁을 고려하지 않았다는 것인데 그들은 매도된 화폐환상의 개념에 기초한 Keynes의 해석대신에 그 개념의 본질만을 폭넓게 받아들여 확장했다.

LEIJONHUFVUD의 화폐환상에 대한 기각은 정확하고, 단지 노동시장에서만 거부되는 것이 아니라 임의의 시장에서도 거부된다. 그렇다고, Keynes가 화폐 환상을 거부하고 화폐 관련 행동을 하찮게 보았다는 것은 아니다. 그리고, 화폐관련 행동에 관한한 모든 거래자들이 상호 이득 있는 실질거래 가능성을 인식할지라도 거래된 실질교환은 불가능함에 비추어 화폐의 非一中立性은 거부되지 않는다.