Robert Malthus : J.M. Keynes's 'First' Cambridge Economist

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1 Introduction

According to Rutherford (1987, p. 175) it is "[a]t least since Cannan (1917, p. 7)" that "Malthus has been widely portrayed as a hopelessly muddled thinker". We are thus led to a passage where the LSE's erstwhile enormously influential economist Edwin Cannan ([1893] 1920, p. 7) claims that Malthus was "seldom blessed with a clear-cut opinion on any subject".

The present article proposes to see this Cannan-related tradition as backdrop for Keynes's (1933, pp. 100-1) imploring his Cambridge audiences to adopt "Robert" Malthus–as he was appropriately referred to at Cambridge[1]–as their founding father in economics:

> If only Malthus, instead of Ricardo, had been the parent stem from which nineteenth-century economics proceeded, what a much wiser and richer place the world would be to-day! We have laboriously to re-discover and force through the obscuring envelopes of our misguided education what should never have ceased to be obvious. I have long claimed Robert Malthus as the first of the Cambridge economists...

Mark Blaug (1985, 175f.), the eminent historian of economic thought, commented: "One can only marvel at Keynes's astounding assertion".

Keynes does not prescribe here a particular piece of economic analysis, however. He rather advocates Malthus's vision how economic problems should be approached in general. Keynes outlines a future-oriented programme to "rediscover" a specific mode of thinking and to "force" one's thought through the thicket of presently established patterns which Keynes considered to come from decades of "misguided" economic analysis.

Keynes's appeals in the 1930s to cultivate the memory of Robert Malthus as founding father of Cambridge Economics were singular–at that time and ever since. Among his contemporaries at Cambridge there was no colleague nor was there any disciple or graduate [2] who ever envisaged Malthus in the encompassing way which Keynes proclaimed in 1933 and, similarly, again in 1935, then in

[1] The authentic forename generally used for T.R. Malthus was "Robert", as emerges from his father's "Alas, my dear Bob" in the letter reproduced by Keynes (1933, p. 96). The authentic pronunciation of the family name is without English "th" but with "t(h)", as stated in the Economic Journal (1935, p. 221) (probably written by Keynes as editor of the journal): "Mr. Robert Malthus [junior]...confirmed the view that the family have always pronounced their name *Maulthus* with the *h* doubtfully sounded." This confirms Keynes's (1933, p. 81) earlier presumption: "the original form of...Malthus was Malthouse."

[2] Stigler (1990, p. 10) lists the following as Cambridge graduates in Economics from 1908 to 1930: Hugh Dalton, H.D. Dickinson, M.H. Dobb, H.D. Henderson, R.F. Kahn, F. Lavington, J.E. Meade, F.W. Paish, D.H. Robertson, H.M . Robertson, E.A.G. Robinson, Joan Robinson, G.F. Shove. To these Briand Reddaway should be added. Although he graduated only in 1934, he was a student who was much supported and appreciated by Keynes (see Reddaway 1995).

the *General Theory* (1936) and once more in 1937. The scholarly consensus still is, as Rutherford (1987, p. 188) wrote, "that Keynes foisted his own economics on to Malthus and misinterpreted him as a result". Even the Cambridge historian Peter Clarke (1990, p. 122), expert for *The Keynesian Revolution and its Economic Consequences*,[3] proclaimed: "Keynes...posthumously attributed to Malthus a suspiciously cogent (and Keynesian) doctrine of 'effective demand'." Commentators repeat in essence the assessment given already by Roy Harrod (1951, p. 460), Keynes's disciple and his first biographer:

> [Keynes finds] in Malthus a precursor of his own theory of "effective demand". I cannot believe that Malthus...contributed much of value to economics, in which he was always muddled.

Few commentators seem to have realised that by invoking Malthus in the way just quoted, Keynes by no means intend to recall an allegedly "cogent" (Clarke) piece of past economic modelling.[4] His aim was to raise awareness for an alternative economic way of thinking, the detailed scholarly results of which lying not in the past but in the future.

Keynes's plea to rethink the economic analysis of the Cambridge School in the spirit of Malthus's doctrine of 'effective demand' did indeed come in the context of his own working towards his *General Theory* (1936) in which 'effective demand' is 'the' central concept. In so far it is correct when Clarke and other authors see some very personal aspects in Keynes's praise for Malthus's use of the term 'effective demand'. But the quoted passage on Malthus can also be understood as a proposal for an encompassing paradigmatic change, intended to open new intellectual venues not just for Keynes himself but for future adherents of a reinvigorated Cambridge School of Economics. For such a reinvigoration–Keynes implied–Cambridge Economics had to "re-discover" and cultivate its century-old root coming from a conceptualisation of 'effective demand'. This concept stood historically in opposition to the mindset of David Ricardo as emerged from Malthus's protracted, but friendly, debate with Ricardo.

As Keynes's biographer Robert Skidelsky (1992, p. 418) observed, "Keynes and his fellow Cambridge economists were men of a single book, Marshall's *Principles*".[5] It was first published in 1890. Although amended in seven subsequent editions, by 1933, when Keynes spoke against the "misguided education" of the past, this textbook was more than 40 years old. It was clear for Keynes that by that time Cambridge Economics could not linger much longer

[3]See the title of Clarke (1998).

[4]Clarke's term "cogent" is the opposite of what Keynes does write in the *General Theory*: "Malthus was unable to explain clearly (apart from an appeal to the facts of common observation) how and why effective demand could be deficient or excessive, he failed to furnish an alternative construction;" (Keynes 1936a, p. 32)

[5]See also Backhouse (2006, p. 15): "Marshall gave the Cambridge school its bible, his *Principles of Economics*".

on its Marshallian laurels. Keynes foresaw that Cambridge Economics urgently needed reinvigoration.

We will look below at some specific reasons which stood behind Keynes's seeming revolt against the "misguided" economic analysis of the past. But in general terms it can be remarked here already that a wide acceptance of Marshall's *Principles* in the English-speaking world began to deprive Cambridge economics of its specificity. A further reason for rethinking the position of Cambridge Economics in its contemporary academic surroundings was that there were rival Schools of Economics which successfully competed and which diverted scholarly attention. The marginalistic aspects of Marshall's *Principles* were parallelled by those of the Austrian School (Menger, Böhm-Bawerk, Mises). The Lausanne School (Walras, Pareto) fostered criticism of the alleged partial analytic narrowness of the Cambridge School.[6] In addition, in 1933 none of these schools, including the Marshallian one, were able to give a workable answer to the most pressing economic problem of the industrialised countries of that time: the mass unemployment of the Great Depression. In the academic context the most sustained attacks against the Cambridge School came from the London School of Economics (LSE), led foremost by the just mentioned Edwin Cannan and subsequently by a group of his devoted disciples.

In the following the attempt will be made to establish that when Keynes demanded that the long-defunct and supposedly muddle-minded Robert Malthus should be installed as THE spiritual ancestor for a future Cambridge School of Economics, then it was a form of taking up the many gauntlets which kept being thrown by the members of the LSE. Keynes was aware that his earlier appreciation for Malthus's population doctrine was met with fierce rejection at the LSE,[7] as did his more recent tariff proposal for an increase of domestic demand,[8] thereby having turned towards Malthus's doctrine of effective demand. In both cases it was the LSE's director William Beveridge who wrote and who organised attacks against Keynes.[9]

The mere fact of Keynes singling out Cambridge as well-spring for a new era in economic thinking must have been anathema for the London School of Economics–"school" in the sense of a multi-facetted scholarly network. In the attempt to assert their separate identity and under and after Edwin Cannan's often acclaimed leadership there were several economists in this London "school" who tried to "disparage" (Robbins) mental products of their Cambridge neighbours as will be substantiated in a following section.

[6] Remarkably, it is Keynes's erstwhile bitter opponent Lionel Robbins ([1981] 1998, pp. 306-7) who exclaimed: "*Nonsense*! If you look at Marshall's "Mathematical Appendix" [Marshall 1920, pp. 838-58], you can see that he understood perfectly well the generalisations which Walras and his school were elaborating." (The emphasis is Robbins's.)

[7] See Beveridge (1923) and the reply by Keynes (1923a).

[8] Beveridge (1931)

[9] See the two preceding footnotes and the following section on the LSE-Cambridge contoversies.

Keynes certainly counted on the opposition of rival economic schools when he proposed an intellectual resurrection of Malthus as 'Cambridge's economic fountainhead'. What he did not expect was that the coming generations of Cambridge economists had absolutely no inclination to share his view on Robert Malthus as a precedent-setting economist who did well to oppose the allegedly sterile economics of David Ricardo.

2 Malthus's double Devils

When in 1933 Keynes wrote that he had "long claimed Robert Malthus as first of the Cambridge economists", then this might ring as not being quite true. There is only from 1932 onwards literary evidence that he was fully aware of the doctrine of 'Effective Demand'. Thus, no matter whether one believes that Keynes invented, plagiarised, or falsified Malthus's doctrine, one gets the impression that his belief in his importance was just a few months old when in 1933 he published that he had a long-standing claim that Malthus was Cambridge's first economist. But in Toye (2000) we find an appendix with a hitherto unpublished manuscript of Keynes's (1914) on "Population". The first two sentences of its 39 pages are:

> Robert Malthus, the first of the Cambridge economists, came up to Jesus [College, GMA] in 1784. He ... graduated as ninth wrangler [9th best mathematician of the year, GMA] in 1788 and was admitted Fellow of Jesus in 1793.[10]

Thus the manuscript of 1914 begins verbatim with the very claim to which Keynes referred almost 20 years later. He certainly was entitled to mention its longevity in 1933. But his Malthus of 1914 was quite a different one from the one of his maturer years.

Keynes (1937, pp. 131-2) explained the differences in his presentations of Malthus by the latter's stages of life:

> [A]s the young Malthus was disturbed by the facts of population as he saw them round him and sought to rationalise that problem, so the older Malthus was no less disturbed by the facts of unemployment as he saw them round him

But age was also a relevant factor for Keynes himself in his reception of Malthus's doctrines: It was the young Keynes who, in 1914, and even before,[11] formed and professed his mental allegiance with the Malthus of population problems. It was the older Keynes who, from 1932 onwards, praised the older Malthus's concept of 'effective demand'.

[10] Keynes's deleted text not reproduced.

[11] Toye (2000, pp. 37-43) has a further appendix with lecture notes of Keynes's from 1912. Keynes repeatedly referred there to Malthus.

As McCracken (1961, p. 12) stresses while tracing the pre-history of Keynesian Economics, "there were really 'two Malthuses' ". One Malthus is associated with the population problem, the other with effective demand. In particular, there was the (in)famous Malthus of the *Essay on Population* (1798 and subsequent editions). It is because of the tenor of this essay that " 'Malthusianism' can often be heard used as a term of abuse." (Winch 2013, p. 20). One reason for this is that in its second edition of 1803 there is the passage:

> A man who is born into a world already possessed... has no claim of right to the smallest portion of food... At nature's mighty feast there is no vacant cover for him. She tells him to be gone [12]

This passage had a specific polemical purpose directed against Thomas Paine's *Rights of Man* (as Keynes 1933, p. 90 notes). Malthus deleted it in subsequent editions, but he maintained its essence.[13] Keynes (1922-3) seconded it in an astonishing way.

The sixth issue of this monumental editorial project of Keynes's on the *Reconstruction in Europe* was on "Population, Agriculture, and Food Supply". Keynes (1922) introduced it with an article on "An economist's view of population". He garnished his article with a photograph of a "Malthus Island" showing a colony of guillemot birds with the caption:[14]

> The guillemots on these islands off the coast of Northumberland sit shoulder to shoulder on their eggs, covering the entire superficies. If one more egg is laid another egg rolls off into the sea, by this ingenious social custom the population can be maintained in a state of stability.

In spite of Keynes's term "ingenious" we may assume that his motivation, similar to that of Malthus, was not cynicism but a concern for the sustainability of society. It is in this sense that Levy (2001, p. 66) remarked:

> In the nineteenth century, Malthus was perhaps the most important of the "robust utilitarians."

According to Winch (2013, p. 56) Malthus's main contribution to the then existing literature was to draw

[12] Quoted from Keynes (1933, p. 90).

[13] Hollander (1997, p. 896) quotes this passage as well, adding: "In later editions this graphic formulation is absent, but the substantive point, as repeated elsewhere, always against Paine, remains".

[14] Quoted from Spiegel (1991, p. 284). Neither this passage nor the photo is reproduced in JMK 17 where the main part of this article may be found. A recent picture of a guillemot colony may be seen at the URL `http://tinyurl.com/Guillemot-birds` visited on 7 June 2016.

> attention to the precise ways in which population growth had in fact been limited by the operation of a series of checks which entailed vice and misery in one form or another.

These "checks" could involve wars and famines. In drawing attention to these evils

> Malthus disclosed a devil...For the next half century he was chained up and out of sight. Now perhaps we have loosed him again.

as Keynes (1919, p. 6) was to write after the hell of mankind's mutual devastations of World War I.

Keynes's just quoted warnings of the Malthusian devil of population pressure and his subsequent similar ones[15] made him himself appear as devil-monger as Beveridge (1923, p. 452) claimed:

> Malthus' Devil is loose again. Mr. Keynes has seen to that; he stalks at large through our lecture-rooms and magazines and debating societies. The question is rather whether Mr. Keynes was right to loose this Devil now upon the public.

In his reply Keynes (1923a, p. 137) polemised that by denying the relevance of Malthus's population doctrine–although knowing otherwise–Sir Beveridge "has given to ignorance and prejudice the shelter of his name." Thus we have here an illustrative specimen from the year of 1923 of an interaction between an exponent of the Cambridge School of Economics and the director of the London School of Economics.

The details of the just mentioned controversy between Keynes and Beveridge are tedious. According to Keynes (1923a, p. 125) they involved the historical question whether it was "up to about 1900 [that] a unit of labour applied to industry yielded year by year a purchasing power over an increasing quantity of food". Since there were historical time series of data involved which had breaks and which were not consistent, there was also a proverbial "devil in the details". In a private letter to Beveridge Keynes declared in February 1924 (JMK, 19,1, pp.141-2):

> I feel that a continuance of this controversy on fierce lines tends to make the public and our pupils believe that we differ on the essential matters far more seriously than we really do

Indeed, in his earlier article against Keynes, Beveridge (1923, p. 473) himself had written: "The limits of disagreement are really narrow."

[15]E.g. Keynes (1922, p. 446): "[T]he problem of population is going to be... in the near future the greatest of all political questions".

By looking at this exchange of polemics from the "Cambridge" side one gets the impression that a considerable part of the controversy was trumped up in order to give the impression of Keynes, the Cantabrigian, as being a Malthusian devil-monger who confused the public by dramatising non-existent dangers. Beveridge must have known well, however, that in publications preceding this controversy Keynes had registered undeniably *existing* cases of famines on the European continent, of very clear cases in which the population was dying because of lack of food. Keynes (1919, p. 161):

> Those readers who, chiefly mindful of the British conditions with which they are familiar, are apt to indulge their optimism, . . . must cast their minds to Russia,[16] Turkey,[17] Hungary, or Austria,[18] where the most dreadful material evils which men can suffer–famine, cold, disease, war, murder, and anarchy–are an actual present experience

In the beginning 1920s Keynes warned with good reason of *potential* future new instabilities in Europe due to population problems in the wake of the enormous economic and political shakeup following the World War and the Russian revolution.[19]

The subsequent concretisation of the once nebulously potential dangers involved the advent of militant dictatorships in Italy, Spain, Germany, and in the Soviet Union, much against Keynes's entreaties for international policies directed at integrating the countries of the European continent for fruitful and peaceful economic cooperation. With the hindsight of today it was foreseeable that the nationalistic and dictatorial developments in Europe were about to end in a Second World War.[20]

Toye (2000, p. 205) relates that in the middle of World War II

> [Keynes's] former pupil Hugh Dalton[21] [since 1920 devoted member of the LSE] noted in his wartime diary for 27 August 1942 that

[16]Keynes (1922-3) documented the devastating Russian famine with an entire section "III" in issue four of 6 July 1922, containing an impressive article by Fritjof Nansen, the Norwegian Peace Price Nobel Laureate of that year.

[17]See Reuters News Service of 15 April 2015: "The European Parliament backed a motion on Wednesday that calls the massacre a century ago of up to 1.5 million Armenians by Ottoman Turkish forces a "genocide" ", `http://www.reuters.com/article/us-turkey-armenia-idUSKBN0N60SH20150415`. URL visited on 8 June 2016.

[18]Davenport-Hines (2015, 103 and p.373, n.49) quotes from 'The starving children of Austria', *Manchester Guardian*, 8 May 1919, p. 5.: "No famine pictures from India have been worse than these, of rickety bodies, horribly distended, shrunken limbs bent and twisted, wizened, old, questioning baby faces."

[19]Keynes (1919, p. 144): "Men will not always die quietly. . . This is the danger against which all our resources and courage and idealism must now co-operate."

[20]In Germany the National Socialist movement gained much support under the slogan of "People without Space" (*Volk ohne Raum*, `https://en.wikipedia.org/wiki/Volk_ohne_Raum`)

[21]From 1906 to 1910 Dalton was undergraduate at King's College, Cambridge. Keynes was Fellow there from 1909 onwards. See also fn. 2 above.

> ‘Keynes (Jeremiah Malthus, as we used to call him)... comes to talk to me’

Toye (ibid.) writes that this shows that “Keynes’s reputation as a neo-Malthusian was still remembered”, but that Dalton’s remark was anachronistic because by that time Keynes “had moved almost unnoticed from the neo-Malthusian position to the promotion-of-motherhood position.”

When making his parenthetical remark in 1942 Hugh Dalton might have been well aware that shortly before the outbreak of World War II Keynes (1937), his former lecturer at Cambridge, had written that “Malthus” stands not for one but for two devils:

> Now when Malthusian devil P. is chained up, Malthusian devil U. is able to break loose. When devil P. of Population is chained up, we are free of one menace; but we are more exposed to the other devil U. of Unemployed Resources than we were before.

Keynes continued that with a stationary population a country is

> [A]bsolutely dependent for the maintenance of prosperity and civil peace on policies of increasing consumption by a more equal distribution of incomes and of forcing down the rate of interest

But since Keynes had written those lines the situation in Great Britain had changed dramatically. Now, in the middle of the new war, the order of the day was not to expand consumption but to curb it in order to have resources for the war effort. Hence, Keynes’s Malthusian “unemployment-cure” by redistribution from up to down as one might call it, had to be postponed until the time after the war, and Keynes knew it (Keynes 1940).

In September 1941, Keynes had become a director of the Bank of England, working from then on towards a new monetary world system which was to avoid the economic turmoil which the world had experienced in the wake of World War I. It is not at all clear in which function Hugh Dalton might have seen Keynes as biblical “Jeremiah” when, in August 1942 he told his diary about Keynes’s old nickname. Certainly Dalton must have known by that time that the “Malthusian Devil P.” would have been not the appropriate reference as far as Keynes’s current preoccupations had been.

The reference in 1942 to Keynes as “Jeremiah” might be an acknowledgement on Dalton’s part that as the biblical prophet’s dire predictions came true, so did Keynes’s gloomy predictions after the Treaty of Versailles. The combination with Malthus lets one wonder of which one of the “two Malthusses” Dalton thought. At that time Keynes was already working towards the construction of a new international monetary order which should save the future world of a repetition of the Great Depression.

3 Cambridge, Keynes, and the Cannan School

In his autobiography Lionel Robbins (1971, p. 133), after Edwin Cannan over much of the 20th century the leading figure of the economics department of the LSE, writes about the professional relations with the economics faculty at Cambridge:

> A picture is often presented suggesting a state of acute enmity and mutual distrust, with the leading personalities barely on speaking terms and professional relations non-existing.... The difference can be overstressed.

Of course, in order to have polemics with rivalling colleagues, you must have "professional relations", even relations of collegiality. In the case of Keynes the collegiality went so far that he secured for F.A. von Hayek of the LSE a place at his own College at Cambridge [22] and that he supported Hayek to become a member of the British Academy.[23]

But it can be easily documented that as far as publications were concerned, relations could be of severely antagonistic nature (see the table below for a number of relevant publications). In the last section we saw already that in 1924 Keynes had asked the LSE's director William Beveridge to discontinue "controversy on fierce lines" about a matter which, among professionals, was not considered to be largely controversial.

Why were there these continuous professional quibbles between Cambridge economists and the ones from the LSE, if not for reasons of personal animosity? A possible answer lies in Robbins's remarking (ibid.):

> The Cambridge economists of the inter-war period [1919-1939] had inherited the great Marshallian tradition ... At London, on the other hand, there was no such strong local heritage.

This passage is meant to explain why the LSE (especially through Robbins) sought "wider affiliation, both in time and space" (ibid.) in the attempt to match, on own terms, the Cambridge "tradition" in economics.

This statement blurs somewhat the fact that the LSE did have an own tradition and a strong scholarly orientation, namely one which was centered around Edwin Cannan, the once leading economist at the LSE, as Robbins (1971, p. 83) himself describes:

> But the positive inspiration of those years came from... Edwin Cannan... [H]is ascendency was paramount. We revered him. We hung

[22] Hayek (Kresge and Wenar 1994, p. 97): "[After] the bombing in September 1940... Keynes, with whom I had become very friendly, got me rooms at King's College."

[23] Bridel and Ingrao (2013, p. 156): "In 1944, Pigou and Keynes together ... secured Hayek's election to the British Academy."

> on his words. We conned over his every piece of writing. He represented for us archetypal mature wisdom in his subject.

This high praise for Cannan's paramount influence on the spirit of maybe even more than one generation of LSE related scholars is seconded by Hayek (1967, p. 164), the exponent of the once Young Austrians (Robbins 1971, p. 127), when he proclaims:

> Cannan's greatest merit, however, was the training, over many years, of a group of pupils at the London School of Economics: it was they who later formed what probably became the most important centre of the new liberalism [24]

We think that it is not far-fetched when in the following we occasionally refer to a "Cannan School" at the LSE who, in the spirit of their master, showed an *esprit de corps* in spite of many individual differences. But there can be much debate about the 'true' meaning of a 'school' of scholars in contrast to a 'group'.[25]

One could well expect disparaging groans in this circle when Keynes, the Cantabrigian, proclaimed the – according to Cannan's judgement – muddle-headed Malthus as Cambridge's "First" economist. Such reactions in the Cannan oriented camp might well have been intended by Keynes when he brought Cambridge's Malthus to the fore in 1933 and 1935. Two reasons come to mind: either an intention to shock his adversaries from the LSE into reconsiderations of received doctrines. As already suggested, Keynes's intention might also have been to mark the boundaries between two traditions of economic thinking–a sterile and a fertile one, the latter having its roots in "his" Cambridge at the turn of the 18th century to the 19th. But such intentions concerning Malthus–if Keynes did in fact have them–turned out not to become "operationally successful".

This is well illustrated by a recollection by Hicks of a correspondence with Keynes in August 1933, thus, about half a year after Keynes (1933) had published his essay about Malthus's effective demand doctrine. Hicks (1973, p. 7) quotes:

> [Keynes:] In the last few weeks I think I have put my finger on the fundamental point which, quite apart from saving and investment decisions, separates me not only from you and Pigou but from everyone since Ricardo. But it is more than can be discussed in a letter.

[24]See, however, Hayek (1963, 49f.): "[T]he London School of Economics was the centre just at the time when I joined it... [where] all the different traditions which till then had prevailed at the different centres were at last fusing into a common, internationally accepted body of economic theory." In other words: Cambridge economics, in so far as it differed from that of the LSE did not stand for "internationally accepted" economics at all. See also fn. 31 below.

[25]See, in this context Marcuzzo and Rosselli (2013b, p. 8): "Keynes's correspondents examined in this volume ... define a group very different from any traditional 'school'."

It is 40 years later that Hicks (ibid.) comments: "I still don't know, at all precisely, what the "point" was." Thus, neither in 1933, after the essay on Malthus, nor in 1973, thirty seven years after the *General Theory*, did it arrive in Hicks's mind that Keynes had proposed a radical shift of paradigms, from relative price theory to the doctrine of effective demand.

As far as Robbins's remark is concerned that the LSE attempted to attain specificity through an affiliation "in time", this might be a reference to the fact that Cambridge's Pigou has never shown great interest in the history of economic thought. Only recently Backhouse and Fontaine (2014, p. 190) have again drawn attention to Pigou (1902, p. 374) having once remarked about a treatise on the history of value:

> These antiquarian researches have no great attractions for one who finds it difficult enough to read what is now thought upon economic problems, without spending time in studying confessedly inadequate solutions that were offered centuries ago.

In a recent monograph on Pigou the authors Aslanbeigui and Oakes (2015) give no evidence that this was not his life-long conviction.

With his *Essays in Biography* Keynes formed a counterweight against Pigou's disinterest in explicit historical aspects of economic thought. It can be assumed that when Keynes in 1933 and 1935 repeatedly referred to Malthus as "First" Cambridge economist this was not just to "sell" own ideas, especially since it was only in 1936 that his own ideas found their extended publication in the *General Theory*. We take the references to Malthus rather as expression of Keynes's desire to sever economics from its "great", but evaporating, "Marshallian tradition" while stressing that there is nevertheless a long and solid local "historical affiliation" in Cambridge, to use Robbins's words. But, as we stated in the introduction and as remains to be elaborated further, Keynes's appeal was in vain to cultivate further this additional and longer Cantabrigian tradition in economics .

In contrast to Pigou, but also in contrast to Alfred Marshall,[26] Edwin Cannan was renown and appreciated for his work in the history of economics. He was famed for his authoritative edition of Adam Smith's ([1776] 1937) *Wealth of Nations*[27] and for his *History of the Theories of Production and Distribution* (Cannan [1893] 1920). From his position of standing for superior knowledge about the history of economics "[i]t was very well for Cannan himself to refer disparagingly to this or that weakness of 'old Marshall', as he called him" as Robbins (1971, p. 85) relates. Robbins, with the wise hindsight which he had in 1971, continues

[26] Backhouse (2006, p. 31) "Marshall is well known for having progressively reduced the role of history (both history of economic ideas and economic history) in his *Principles*."

[27] See, e.g., Skinner (2008), himself a renown Adam Smith scholar: "An excellent edition of the *Lectures of Jurisprudence* was brought out by Edwin Cannan in 1896 (Oxford: Clarendon Press). Cannan also prepared a valuable edition of the *Wealth of Nations* in 1904 (London: Methuen)"

> But it was not so well that some of us took this as authorisation for a similar disparagement without a similar background of knowledge.

One can conclude from this statement that in the 1920s and 1930s such eager disparagement did exist at the LSE, inspired by Edwin Cannan's precedent. As in the case of Cannan himself, it was often directed against 'old Marshall' and his young followers Pigou and Keynes.

In the case of Robbins (1930a) such a disparagement could produce brilliant results of well-argued improvement of 'old' Marshallian methods–in this case of Marshallian offer curve analysis of the labour market.[28] But we can gather from Robbins's just quoted remark that during his time at the LSE there were indeed cases of over-eagerness to criticise Cambridge Marshallian positions. This observation is not very informative concerning persons, but it characterises a mental atmosphere which Robbins himself attests to "his" LSE surroundings.

A special, but nevertheless illustrative, case in point was the Keynes-Beveridge controversy over the Malthusian "Devil P." which was mentioned in the last section. The case is in so far not quite covered by Robbins's reference to "some of us" as Beveridge was older in age than Robbins (by nine years) and also because he was, as director of the LSE, in an organisational position in which he might have thought that it was his duty to act, even if his conviction did not compel him to do so or in which his "acquaintance with the literature of the subject was slender" (Robbins 1971, p. 136).[29].

But there are further cases of controversy between LSE and Cambridge as emerges from the table below so that there is no reason to doubt the validity of Robbins's diagnosis of some eagerness for disparaging comments on members of the ominous "other place", Cambridge. Thus, although at the beginning of this section we quoted Robbins's warning that the difference can be "overstressed", we also have his words that there was indeed a "group conflict".[30] Keynes's invocation of Malthus's spirit can be seen in the context of the group conflict which the following table intends to illustrate.

Keynes did not fight but he fostered the scepticism concerning the solidity of the 'old Marshallian' economic analytic edifice. He did so, of course, by no means out of Cannan-inspired desire to disparage "old Marshall". Keynes's contrary attitude can be gathered from his magnificent biographical essay about Alfred Marshall. Keynes believed in progress based on reckless but honest intellectual discourse which faces the facts in a mentally liberal disposition. It is

[28]For details see Ambrosi (2011). O'Brien (1988, 27, 186, n.55) considers Robbins (1930a) as an illustration that "in some of Robbins's early writings he made extensive and ingenious use of the Marshallian tool of elasticity".

[29]Hayek is more blunt than Robbins: "As for Beveridge, he was completely ignorant of any economics whatever." (Kresge and Wenar 1994, p. 83)

[30]Robbins (1971, p. 134) himself writes that after due differentiation: "I think there was enough manifestation of opposition to policies which were widely supported in Cambridge to provide sufficient substance for the allegation of group conflict."

appropriate that in his recent portrait Davenport-Hines (2015, p. 139) characterised him by quoting Keynes (1925b, p. 306) with words which he addressed to the Liberal Summer School of 1925:

> We have to invent new wisdom for a new age. And in the meantime we must, if we are to do any good, appear unorthodox, troublesome, dangerous, disobedient to them that begat us.

A special problem with these attacks on the Marshallian tradition in economics was that Pigou showed no appropriate reaction in either case. As far as Robbins (1930a) was concerned, Pigou wrote that "Robbins had misunderstood his argument" but that his analysis was correct (Howson 2011, p. 172)–that was the end of this matter for Pigou. Cambridge's problem with Robbins (1932) was that this piece was devised to call in question any economic policy advice coming from Marshallian Cambridge as being based on value judgements and as such as being unscientific. Here, the problem was that Pigou (1951) reacted only after almost twenty years. It should emerge from the entries in the middle of this table that it was not just Keynes who came under sustained attack from the LSE but the Marshall-Pigou tradition likewise. As Aslanbeigui and Oakes (2015, p. 175) argue with regard to Robbins (1932): he was all out for a "Carthaginian peace", meaning total eradication of Cambridge Welfare Economics.

In the present context it would lead too far to discuss now in detail the cases of "disparagement" which Robbins noted with some guarded collective self-criticism. Let it suffice here that from Keynes's point of view several of the listed cases of conflict could well be understood as challenging in its Marshallian roots the scientific position and the relevance of "Cambridge economics". As the paradigmatic second-generation "Cambridge" economist as which he was addressed in several of Edwin Cannan's publications and as which he essentially saw himself, Keynes must have been concerned not only for the standing of his own scientific status but for that of "his" Cambridge as well.

Keynes had several strategies for dealing with these challenges: (*i*) embracing the opponent, (*ii*) publicly expressing revulsion, (*iii*) changing the economic paradigm, hence the battleground of controversies. It is in the latter context that he proposed to shift the perspective on the basis of a future development of economic thought from Ricardo to Malthus, and this is presently our main point of interest.

Table 1: Controversies: Keynes, Cambridge, and the Cannan School

Year	Issue	Antagonist	Source
	The Economic Consequences of the Peace (Keynes 1919)		
1922	Reparations	Cannan	Cannan 1922
1923	Population	Beveridge	Beveridge 1923, Keynes 1923a
	Tract on Monetary Reform (Keynes 1923b)		
1923	Monetary Reform	Cannan	Cannan 1923
1924	Monetary Reform	Cannan	Cannan 1924a, Keynes 1924a
	Monetary Reform	Cannan	Cannan 1924b, Keynes 1924b
	Principles (Marshall 1920) ; *Welfare* (Pigou 1912 ; Pigou 1928)		
1930	Pigou on labour supply	Robbins	Pigou 1912 ; Robbins 1930a
	Marshall *vs* Wicksteed	Robbins	Robbins 1930b
	Pigou on Welfare	Robbins	Robbins 1932[31]Pigou 1951
	Treatise on Money (Keynes 1930)[32]		
1930	Free Trade	Cannan School	Macmillan Committee, *Th. Gregory*
	Free Trade	Cannan School	Committee of Economists, *Robbins*
1931	Revenue Tariffs	Beveridge	Keynes 1931b ; Beveridge 1931
	Free Trade	LSE[33]	Keynes 1931a , Robbins 1931
	The *Treatise*	Hayek (LSE)	Hayek 1931 , Keynes 1931c, etc.
1932	Saving and Wealth	Cannan	Cannan 1932, Keynes 1932
	Public Works	LSE	Keynes et al. 1932 ; Robbins et al. 1932
1933	Malthus : Keynes *vs*	Pigou & LSE	Keynes 1933, Keynes 1935
1936	*The General Theory* (Keynes 1936b)		

4 Malthus and the *General Theory*

In a chapter in which he attempts to find a rationale for the seemingly senseless Mercantilistic and related economic policies Keynes (GT, 371) gave a brief list of "the brave army of heretics" which included

> Mandeville, Malthus, Gesell and Hobson, who, following their intuitions, have preferred to see the truth obscurely and imperfectly

From a passage like this, one might infer that Keynes conceded that it is only in an 'obscure and imperfect' way that the *General Theory* can be related to

[31] One "foundation" for Robbins (1932) "was a certain revulsion from the work of Pigou and in particular his *Economics of Welfare*. . . [Excluding] from the domain of scientific discourse all such exercises as Pigou's then became a major objective", O'Brien (1988, p. 23).

[32] Keynes saw his committee work in 1930 as an opportunity for applying his *Treatise*, but his proposals met there with sharp opposition by Cannan's disciples Th. Gregory and L. Robbins.

[33] Beveridge (1931), director of the LSE 1919–1937 edited and organised a compilation of the LSE side of the Free Trade debate. Robbins (1971, p. 157), himself a co-author, later wrote: the book "might seem to be the invention of a perverse fantasy". That notwithstanding, in 1932 it appeared in German translation , as "Textbook on International Trade" (Beveridge 1932).

Malthus, the object of the present investigation. But when at the beginning of the *General Theory* Keynes (p.25) claims to have already laid out “the substance of the General Theory of Employment, which it will be our object to expound”, then he refers not to an obscure, but to a quite clear and solid Malthusian foundation. In the present section we will trace this foundation with respect to (*i*) the classical production function, (*ii*) the concept of effective demand, (*iii*) the choice of units. It should be noted that these points relate directly to the headings of chapters 2, 3, and 4 of the *General Theory*. These three points cover thematically the Malthusian “Devil ***U***”. This raises the question: how does this analysis relate to the “Devil ***P***” and its potential irrelevance which was often addressed by Keynes before and immediately after World War I? This question will be briefly treated in a point (*iv*) of this section.

4.1 The Classical production function

Samuelson (1978, p. 1430) relates that when at the MIT he had Professor Dorfman from Harvard to lecture on Malthus's theoretical system, to his amazement

> it turned out–Say's Law aside– to be isomorphic with my earlier report to the seminar on Ricardo's system, even though Dorfman and I had never compared notes! Yet Ricardo and Malthus thought they had different and irreconcilable views

Similarly, we learn from Blaug (1992, p. 54)

> Malthus's style of reasoning was identical to that of Ricardo's and their wide disagreement on questions of value and the possibility of “general gluts” involved no substantive differences in methodology.

This might appear to be puzzling: How can there be so much controversy about the working of the economy on the basis of virtually the same methodology? An answer to this question will be attempted later in this section by making recourse to some simple geometry.

In the already mentioned article, Samuelson (1978, 1418, fig.1) presented the “Canonical Classical Model” with reference to a figure which depicts decreasing returns to “*V* or *K* or *L*”, i.e. to inputs of labour and / or in combination with capital on a given endowment of land. Robbins ([1981] 1998, p. 172), not referring to Samuelson, but to Malthus, emphasized–expressly in contradiction to his master Edwin Cannan: “[W]hat Malthus was really getting at... was the simple law of diminishing returns”. According to Waterman (2016, p. 187):

> The law of diminishing returns is one of the few genuine laws of nature in economics. Malthus deserves high praise as its chief discoverer and today would have won a Nobel Prize.

Earlier, Waterman (2003, p. 561) implicated also Ricardo in this context by writing (we quote his algebraic expressions):

> [The] aggregate production function of "food" in the agricultural economy assumed by Malthus and Ricardo [was]:

$$F = F(N)\ , \qquad F' > 0\ , \qquad F'' < 0 \tag{1}$$

where N stands for employment and the function $F()$ stands for production–of food in the present case. Thus we have here the claim that there is a common formal branching point for two antagonistic economic paradigms in the form of what now is known as the (well-behaved) neoclassical production function with decreasing returns for labour.

In crass contrast to Keynes there are Cambridge Keynesians, in particular Joan Robinson 1956, who came to reject the concept of a differentiable "well behaved" production function which displays decreasing returns.[34] But Keynes himself went out of his way to verbally confirm the relevance of this concept for the *General Theory*. Indeed, it would have been strange for him to invoke Malthus's economic approach–before, in, and after the *General Theory*–and then to fight an economic concept for which even today Waterman (2016) would award Malthus the "Nobel prize" in economics.

In view of some current criticism of the Classical economists[35] it is important to draw attention to the long passage in which Keynes, at the beginning of the *General Theory* (p.17), proclaims his allegiance to the classical theory of production and also to the marginal analysis of wages:

> [W]e shall maintain the first [classical] postulate as heretofore, subject only to the same qualifications as in the classical theory... I am not disputing this vital fact which the classical economists have (rightly) asserted as indefeasible [:] In a given state of organisation, equipment and technique, the real wage [w/p] earned by a unit of labour has a unique (inverse) correlation with the volume of employment. Thus if employment [N] increases, then, in the short period, the reward per unit of labour in terms of wage-goods must, in general, decline and profits increase.

This is such a firmly held conviction that–with regrets–Brothwell (1997, p. 18) has to conclude:

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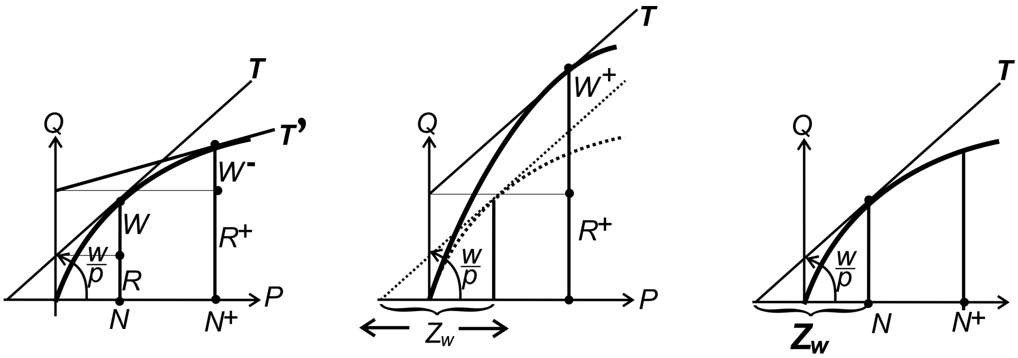
[34] See Robinson and Naqvi (1967) for a reference to the "badly" behaved production function based on an assortment of input-output technologies. Remarkable is here the definition of "capital in terms of "labor commanded"... as the value of capital [stock, GMA] in terms of product divided by the real wage" (p.584). It should be noted that this is *not* the method of valuation which was advocated by Keynes. According to GT, p.213 "the results of past labour, embodied in assets... command a price according to their scarcity". Thus, for Keynes, they are *not* priced "in terms of product", but in terms of the outcomes of the asset market.

[35] See Pasinetti (2007, p. 339) "The Classical economists... fell into the logical trap of thinking of a general 'law of diminishing returns' (Malthus, 1798, Ricardo, 1821)"

Figure 1: The Malthusian paradigm shift – à la Keynes



(a) Malthus ***P*** (b) Progress (c) Malthus ***U***

(Q=quantity of goods, P=population, w=wage rate, p=price, W=wage bill in terms of goods, R=profits in terms of goods, N=employment, T=tangent line, Z_w=effective demand in Keynesian "wage units")

> It seems unlikely, then, that Keynes would have entirely discarded marginal productivity theory in a revised edition of *The General Theory*

Thus if there were disciples of Keynes who denied that the well behaved production functions are basic for his analysis, then they would deny the relevance of Keynes's own words.

Keynes describes in the above a production and remuneration model of a type which is represented graphically in figure 1 (c) where the curved line stands for the classical production function common to the main classical economists as stressed by Waterman and many others and where the slope of the tangent line T represents a real wage w/p as marked. The latter point is a marginalistic addition to the economic canon but treated as "classical postulate" as well by Keynes. As Keynes writes in the quoted passage, "[i]n a given state of organisation, equipment and technique"– as represented here by the curve in 1(c)–any increase in employment shifts the point of tangency of the T-line to the right and lowers its slope, thus showing that "the reward per unit of labour in terms of wage-goods must, in general, decline", the term "wage-goods" being a reference to Pigou's (1933) two-sector model which Keynes elaborates in a later part of the *General Theory*, an argumentation which Ambrosi (2003) re-traces in considerable detail.

4.2 The principle of *effective* demand

Although the marginal productivity doctrine of real wages is stated by Keynes as being a point of agreement with the Classics, it is also the point where paradigms part. The conventional classical and neo-classical school claims that the (uncontested) drop in real wages is *causal* for increased employment. Therefore the first step for a reduction of unemployment is a reduction of the real wage. If such a reduction does not occur, then this is an indication that there is no need for employment political action. In fact, since wages and prices affecting the real wage are not for the politicians to decide, there is not 'really' a need for economic political action at all.

The Keynes-Malthus line of argumentation is contrary to the just mentioned position in that it claims that a drop in real wages is (or, in a weaker form: it can be) *consequential* of increased employment (if there is a price increase at constant money wages). The strategic causal connection for increased employment lies in effective demand. Therefore the first step for any increase in employment–or decrease in unemployment–is an increase in demand which becomes *effective* because it can be met by supply at increased employment. If there is underemployed labour, then there can be very well a reason for economic political action *not* primarily directed at a change in real wages, but at affecting demand, say, in the form of public works, as Keynes (1933, 101f.) quotes from Malthus's *Principles of Political Economy*.

But public works in the case of an economic depression were also advocated occasionally by Pigou, Keynes's archetypal classical economist, as Aslanbeigui and Oakes (2015, p.208-10 and passim) point out. In 1932 Pigou went even so far as to sign a letter to *The Times* to this effect together with Keynes and others (Keynes et al. 1932). What was Malthus's distinctive feature which set him apart from Keynes's "classical" contemporaries?

In order to answer this question, consider the following passage from Malthus (1820, p. 417):

> Whenever there is a great demand for commodities, that is whenever the exchangeable value of the whole mass [pQ] will command more labour than usual at the same price, there is the same kind of reason for expecting a general increase of commodities [Q], as there is for expecting an increase of particular commodities when their market-prices [p] rise.

The claim here is that an increase in the "value" pQ ("scalar" or aggregate value in the case of a multitude of goods and prices) can have the same effect as one in a "particular" price p. This is a variant of the juxtaposition of paradigms just mentioned. There is no comparable passage in Pigou's work. But maybe Pigou did well in not writing anything of this type which, to some, seems to have appeared as being simply unintelligible. As Porta (1992b, p. xv) reports, McCulloch, writing to Ricardo in 1823, ironically complimented Malthus "for having rendered himself so very unintelligible" when writing about value.

With the help of some symbols and figure 1(c), Malthus's just quoted passage might be clarified somewhat in order to bring out its specificity. Equation (2) states that the money value of goods demanded (D) must be met by the money value of goods supplied (Z), and this value is equal to the wage bill (wN) plus profits (rwN).

$$\overbrace{pQ^d}^{D} = \overbrace{pQ^s}^{Z} = (1+r)wN \tag{2}$$

$$\underbrace{\frac{p}{w}Q^d}_{D_w} = \underbrace{\frac{p}{w}Q^s}_{Z_w} = \frac{1}{\alpha}N \Rightarrow Q \tag{3}$$

In equation (3) this fairly obvious relation is then modified by dividing (2) with the wage rate w. This changes the expressions D and Z which are in terms of money values to D_w and Z_w which are in "wage units" to use Keynes's expression. In Malthus's parlance they are "labour command" values because a specific money value pQ, when divided by the wage rate for an hour's work, measures the amount of hours which the expression pQ/w can buy. Thus, the difference between Keynes and Malthus concerning terms relates to an identity of substance.

Assuming that with given technology and in the short period the wages bill is a constant part $\alpha = (wN)/(pQ)$ of the total money value of production leads to the equations (3) as stated. The arrow at the end of this expression signifies that the labour input N is associated with a goods output Q as stated geometrically by the "Malthusian" classical production function as depicted in fig. 1 (c).

But output Q is also related to the real wage w/p as stated by the "first classical postulate". Since an increase in price p lowers the real wage, this leads to higher output according to expression (4) and the associated rightward shift in fig. 1(c) of the tangent line T when the real wage decreases and thus the tangent value of the angle of its slope also decreases since a new tangent point on the production curve must then be to the right of the initial one.

$$\frac{w}{p} \Rightarrow Q \tag{4}$$

Thus we can paraphrase Malthus by stating: it is uncontested that there is an increase in a specific output when there is an increase in the specific market price of that product. According to Malthus's controversial claim we must add to this economic insight that in a parallel but different way there can be also an increase in output when there is an increase in the aggregate value of demand D_w. This alternative is written in expression (3).

Malthus states a dramatically new paradigm for economic argumentation when claiming that in so far as increased aggregate demand D_w becomes "effective" because it meets aggregate supply Z_w, in so far there is also increased output and employment. It is the specificity of Malthus that he has – in Keynes's assessment – the Promethean proposal to formulate aggregate supply and aggregate demand as a paradigm parallel, but contextually separate, with that of the specific price mechanism for a single good. Thus, when in June 1935–the *General Theory* being in its final stages–Keynes (1935, p. 107) called on Cambridge economists henceforth to do justice to "the brilliant intuitions" of Malthus's "far-reaching *Principle of Effective Demand*", then this is not "a perfunctory sentence" (Pasinetti 1997, p. 93) but a reference to Malthus's paradigmatic specificity in economic analysis.

In referring to Malthus in 1935 as having "brilliant intuitions" and a few months later in the *General Theory* (p.32) in similar terms, Keynes makes it quite clear that he does not attribute to Malthus a "cogent" system of economic analysis, but rather a new "*Principle*" in the sense of a new paradigm which needs further concretisation for analytical and practical usefulness.

As far as Keynes's own text is concerned, the relevant snippets to quote now from his chapter on "The Principle of Effective Demand" are on pp.24-25 of the *General Theory* where we read

> $Z = \phi(N)\ldots$ can be called the *aggregate supply function*...
> $D = f(N)\ldots$ can be called the *aggregate demand function*. ...
> The value of D at the point of the aggregate demand function, where it is intersected by the aggregate supply function, will be called *the effective demand.*

The author of these lines has the tricky problem that it is only in the next chapter of the *General Theory*, when he addresses the question of appropriate "units", that Keynes can plead to use "wage units" (labour command units) for the analysis of effective demand. Thus it is only in subsequent passages that we have the transition comparable to that from expression (2) to (3) which we had in the Malthusian context as just discussed.[36] But for any reader who follows Keynes's imploration to take note of what Malthus wrote in the *Principles of Political Economy*, the above should clearly appear as a concretisation of Malthus's more than a century old proposal for his new economic paradigm.[37]

In his contribution on chapter 3 of Keynes's *General Theory*, Pasinetti (1997, p. 93) claims that having stated "The Principle of Effective Demand" in the heading of that chapter Keynes "never came back to **it** explicitly" (boldfacing

[36]Only on pp.55-6 fn.2 does Keynes get to formulating the Z_w-function as "linear with a slope given by the reciprocal of the money-wage [share]", the share being the parameter α as used and defined above in and in connection with expression (3). This "Z_w-footnote", as we may call it, is referred to as "abominable" in Ambrosi (2010) because it has given occasion to much confusion: the all-important word "share" is missing in the text as printed. Also, Keynes gives there the condition 'marginal labour cost $\Delta(wN)$ equal to marginal returns $\Delta(pQ)$' – which may be also written as $\Delta N = \Delta(pQ)/w$, or, in Keynes's own formulation as "$\Delta N = \ldots \Delta Z_w$". Several readers wrongly concluded from this that Keynes's Z_w-function should in this context have a unitary slope instead of correctly concluding that its slope is given by $1/\alpha$.

[37]See, however Pasinetti (1997, p. 94) who does not relate this passage to Malthus. He thinks that Keynes's functions relating to the aggregate supply and demand "and Effective Demand were new: all were introduced by Keynes (though he tries, or pretends, to relate them to previous discussions)."

added). In order to avoid thinking now just about a scholastic exercise about Keynes's use of a word written "Principle", let us stress that in substance the *General Theory*, according to its index, has 23 listings under the entry "Demand, effective" (GT, 415-6). On the *General Theory*'s pages 23 to 34 we have five page headlines with "The Principle of Effective Demand"–in capital letters. On p.25 Keynes writes, in the middle of GT, ch. 3

> [*T*]*he effective demand*...is the essence of the General Theory of Employment, which it will be our object to expound [in] the succeeding chapters...

Keeping this in mind, it is not quite clear what "it" is missing in Pasinetti's opinion when he comments on Keynes's chapter on "The Principle of Effective Demand" as quoted above.

4.3 The choice of units

It was mentioned already that Keynes bases his analysis on accounting in terms of "wage units". In his chapter on the "choice of units" he expresses this by proclaiming (p.41):

> In dealing with the theory of employment I propose, therefore, to make use of only two fundamental units of quantity, namely, quantities of money-value and quantities of employment. The first of these is strictly homogeneous, and the second can be made so.

Examples for the former "quantity" mentioned here are the "money-value" expressions (2) as stated above. Examples for the "quantities of employment" are given by (3) which is generated by dividing with a money wage rate w. The question of 'homogeneity' which Keynes mentions in this context is that "the" homogeneous wage rate w does not really exist because even in the same profession there are many different wages. Keynes claims that this problem can be overcome – at least conceptually – by adjusting the measure of efficiency of a worker so that a "homogeneous" wage unit per efficiency unit can be constructed.

Keynes is very brief in explaining his choice of units in this chapter.[38] For reasons to be looked at later in this paper he was unable to convince his putative disciples to follow him systematically in this regard. In spite of his praise for Malthus in other places, in connection with his "choice of units" he gives no

[38]Thus, Keynes does not consider that an expression like pQ/w might appear to the reader as being a hotchpotch of price, quantity, and wage, but not the "employment" of the quote. Keynes's point is that such a magnitude is "employment" in a dimensional respect. In order to see this in detail, one has to regard the individual economic dimensions of this expression. It does follow then easily that they do reduce to employment in a dimensional sense as the following shows: $[\frac{\text{money}}{\text{good}}] \times [\text{good}] \Big/ [\frac{\text{money}}{\text{employment}}] = [\text{employment}]$.

indication that with his proposed units he follows a Malthusian precedent. It is likely that in this context Keynes did not want to discuss that Malthus had enormous problems defending his "labour command units" against Ricardo and against his own second thoughts. As far as Ricardo is concerned we have now the excellent documentation by Porta (1992a).

As far as the debates are concerned about the best measure of value which Malthus had with himself, one has to consult the changes between the first and the second editions of his *Principles of Political Economy*, a task which surpasses the present possibilities. Suffice it to note that according to Pullen (1989, p. lxviii): "The alterations on value constitute the largest single consecutive alteration" between the two editions. Hollander (1997) tries to trace these changes, but it certainly is still a worth-while project to find an encompassing framework for the evaluation of Malthus's own discussion of his choice of units.

O'Brien's (2004, p. 123) claim

> Malthus engaged in a long and unprofitable debate with Ricardo on the best measure of value, finally deciding that [Ricardo's, GMA] embodied labor was the best measure. Recounting this will only confuse the reader

certainly is a highly unsatisfactory conclusion.

As far as Keynes is concerned, this debate was not "unprofitable" but of utmost importance. It should not "confuse the reader" to learn that the historical controversy is whether the key economic parameters are in terms of *technological* labour input-output coefficients or in terms of *economical* labour cost content so that we have as basic parameters

$$\text{a) Ricardo: } a_i = \frac{N_i}{Q_i} \qquad vs. \qquad \text{b) Malthus: } \alpha_i = \frac{w_i N_i}{p_i Q_i} \tag{5}$$

As far as "value" is concerned, according to Ricardo it is given by physical labour contained in a product as given below by (6a):

$$\text{a) } N_i = a_i Q_i \qquad \text{alternatively we have} \qquad \text{b) } D_{wi} = \frac{p_i Q_i}{w_i} \tag{6}$$

The alternative measure (6b) proposed by Malthus refers not to *physical* labour but to *dimensional* labour (compare equs. (3) above).[39] In so far as such a "value" becomes "effective" in economic production, there is an associated parameter α from which one can easily compute the *physical* labour associated

[39] See the preceding footnote concerning dimensions. For a verbal formulation in terms of labour see Malthus (1836, p. 82): "[T]he power of commanding a given quantity of labour of a given character, together with the will to advance it, represents a given demand", namely D_w as written above in equ. (3). It should be noted that this passage about "commanding" labour is from the second edition of Malthus's *Principles*.

with the *dimensional* labour in Malthusian analysis. This, in any case, is how Keynes received Malthus in short-period context as is claimed above.[40]

It is maybe an indication of great wariness towards Malthus among current Cambridge Keynesians that when Bradford and Harcourt (1997) recapitulate the analysis of "Units and Definitions" in the *General Theory*, there is not the slightest indication that there might be an important Malthusian connection.

4.4 Relating Devil *U* to Devil *P*

As briefly described above already, it seems that there are two entirely different "Maltusses" which Keynes was concerned with during his life: first with the cynical-seeming conjurer of the "Devil ***P***" of population pressures, then with the benevolent exorcist of the "Devil ***U***" of unemployment. In this section we have dealt only with the latter, relating the analysis of unemployment to the Classical production function, allegedly Malthus's Nobel Price worthy (co-)invention. In this closing subsection we want now to speculate briefly how we could combine the two Malthusian concerns. For this purpose we have to return to figure 1 and to work our way back from Keynes's reception of the paradigm of effective demand to his earlier Malthusian preoccupations.

The production function of fig. 1(c) above takes technology and capital equipment as given and concentrates on labour as the only variable factor. In limited regards this is appropriate for a graphical representation of a theory of employment as envisaged in Keynes's *General Theory* and likewise in the context of Pigou's (1933) *Theory of Unemployment*, the reference for Keynes's own theoretical construction.[41] Such a model cannot cover the preoccupation of the classical canonical model with the distribution among the "productive triad" (Blaug 1985, p. 286) of land, labour, and capital. Nevertheless, the model can depict limited aspects of the Malthusian concern with population growth.

If we turn a few pages back to fig. 1(a), then we may note that there the axes depict macroeconomic output Q and population P. The tangent line T depicts, as drawn, a relatively high real wage. For population (and employment) level N the total output in this case is divided between R, profits in real terms, and the wage bill in real terms, W. If the population grows to N^+, the tangent line is now T', the real wage has dropped, so has the real wage bill which is now W^- and real profits have increased to R^+. The working population which might have lived comfortably with the formerly relatively high real wage now lives in relative and absolute misery. Population growth will stop when the survival of

[40] See also Harcourt (1994, 21, n.3): "Keynes wrote [to Joan Robinson] (27.8.42): 'For my [wage] units to work two conditions must be fulfilled, namely that labour in some sense is the only factor of production and that we are functioning in short-period conditions'. This was also a response to her comment (21.8.42), 'that your units work because capital equipment is given'. "

[41] See Ambrosi 2003 for a reconstruction of the production theoretic interconnections of the two treatises.

the population can not be sustained any more. Malthus's 'devilish' prediction is that because of famine and in the attempt to avoid it, the affected population will succumb to vice and criminality.

The "miracle" of the 19th century and up to World War I was that this just did not happen in the way in which one might expect on the basis of Malthus's *Essay on the Principle of Population* (Malthus 1872). The material well-being of workers in the industrialised countries did not decrease but it increased. Keynes's explanation was that this obvious taming of the Malthusian "devil ***P***" happened, among other reasons, because of the equally obvious parallel progress in technology, commerce, and capital accumulation. This is shown in fig. 1(b) where we have an upward tilt of the production function for the reasons just stated. It is then possible that the new tangent line T shows in 1(b) an undiminished real wage, a strong increase in the real wage bill to W^+ to support the larger population but a relatively small (or declining) real capital income, the result of the ongoing capital accumulation and the ensuing increase in the supply of capital services.

One can find passages in Keynes's early writings which may be taken as verbal descriptions of the progress as depicted in fig, 1(b).[42] The tenor of such argumentation is that Malthus was right in principle but a benevolent fate and a well functioning economic system saved "us" from the otherwise predictable misery.

Keynes's Malthusian 'devil-mongering' after the First world war appears in this scheme as fear that the progress of the past is reversed due to a destruction of the fabric of European trade, production and social stability. Graphically this appears as a contraction of the representation of economic activity from the drawn-out lines to the broken-lines as shown in fig. 1(b). In part these fears were unfounded. In fact, Keynes himself downplayed several times the importance of the war-time destructions. Also, the pressure of the numbers of population growth was not as high as in the past.

The "devil" which was overlooked in the discussion after the First World War is depicted in fig. 1(b) by the bracket marking a line of length Z_w.[43] As we know from the previous discussion, Z_w stands for effective demand. With economic progress the initial Z_w-line which is drawn for the broken-line situation must

[42] See also Joan Robinson's (1956, p. 343) description of capital accumulation in a "Mature Economy": "If population is constant, all the accumulation that takes place runs into raising capital per head and improving the standard of housing. As accumulation goes on output per head is rising. In the absence of technical progress, the degree of mechanisation is being raised; the real wage rises as time goes by and the rate of profit falls." Thus we have here similar characteristics as illustrated in figure 1(b) above, only that we depicted some increase in employment as going on along with economic progress.

[43] The line marked Z_w stands indeed for pQ/w because the real wage w/p is given by the ratio of the vertical line Q (broken-line case) to the corresponding horizontal line marked Z_w. Thus this ratio must stand for Q over pQ/w so that Q cancels and we are left with the inverse of p/w, thus with w/p as required and depicted.

increase in order to meet the improved situation as marked by the drown-out lines and as it is indicated by the two arrows extending to the right and left of Z_w in 1(b). With increased technological possibilities and with the new (drawn-out) tangent line T in fig. 1(b) the Z_w-value must increase as shown by the two arrows. If that does not happen in a sufficient extent, then the economy is stuck on a level beneath its possibilities. The relevance of some such danger was shown in Keynes's opinion by the Great Depression of the 1930s. In the case of Malthus it was shown by an economic downturn after Waterloo and the end of the Napoleonic Wars.

We hasten to add that there is no literary evidence that Keynes saw the Malthusian problem cases along these graphical lines. But his verbal comments on Malthus and on his two Devils suggest that his thoughts, if they were seeking a synthesis, probably moved along these lines. Figure 1(b) must have been welcome to him because, if its underlying economics is run in a backward direction, the results would have spared him the admission that the cure of unemployment requires a decrease in real wages. If unemployment involves a contraction of the utilisation of capital and labour from an initial position as given by the drawn-out lines to a situation as given by the broken lines due to a contraction of effective demand to the low level Z_w, then regaining full employment as given by the drawn-out lines in fig. 1(b) could occur at constant real wages.

Subsequent to the publication of the *General Theory* empirical results were published that increased employment does not require diminished real wages. In 1939 Keynes dealt with these findings under the title "Relative Movements of Real Wages and Output", now as "Appendix 3" to the *General Theory* in JMK, 7, pp.394-412. One of the possibly relevant influences which Keynes lists there is the marginal wage cost (p.411). It could be that the parallel fluctuations in the re-employment of formerly unemployed labour and of hitherto idle capital equipment influences the marginal wage costs in such a way that the predictions of the classical models are not observable although the classical theory of production might be applicable in an appropriately modified form.

5 Malthus and the 'Cambridge Circus' group

There is a section on Malthus in Schumpeter's (1954, p. 480) monumental *History of Economic Analysis*. It starts with: "Marx poured on him [Malthus] vitriolic wrath. Keynes glorified him." Many reader probably react to such a juxtaposition with the presumption that an appropriate assessment of Malthus lies somewhere in the middle. This is also the position of influential 'Cambridge Keynesians' as will emerge from the following. It should also be recalled that among some Cambridge Keynesians there was considerable sympathy for a Marxian perspective on Keynesian analysis.

When mentioning Marx's "vitriolic wrath", Schumpter probably alludes to

Karl Marx ([1863] 1968, pp. 496-7, his emphasis) writing:

> *Utter baseness* is a distinctive trait of Malthus–a baseness which can only be indulged in by a parson… The "baseness" of this mind is also evident in his scientific work. *Firstly* in his shameless and mechanical *plagiarism*. *Secondly* in the *cautious*, not *radical*, conclusions which he draws from scientific premises.

For anybody who seeks just a sprinkling of spiritual guidance in the writings of Karl Marx it could easily appear as bordering on the perverse to propose the glorification of Malthus's "*utter baseness*".

Keynes (1925a, p. 258) considered Marx not to be a convincing author– to put the matter mildly. For him, *Das Kapital* was "an obsolete economic textbook which I know to be not only scientifically erroneous but without interest or applicability for the modern world". This not withstanding, several young scholars who discussed with and about Keynes during the transition from his *Treatise* of 1930 to the *General Theory* of 1936 did try to see the debate from a Marx-oriented angle.

Their initial platform was what came to be known as 'Cambridge Circus'. This was a seminar and discussion group, which, according to Joan Robinson (1978, p. xii) was "first proposed by Piero Sraffa… (who was secretly sceptical of the new ideas)", namely Keynes's. Other members were Richard Kahn, Austin Robinson (Joan's husband), and James Meade. All of them (except for Sraffa who decided against teaching) later became professors at Cambridge. They formed the nucleus for the later "Cambridge Keynesians" (see Pasinetti (2007), who does not have a separate chapter for Austin Robinson and James Meade, however).

The Marxian orientation in this group follows for one from Piero Sraffa, who, according to Joan Robinson, proposed the formation of the 'Circus'. He was a young Italian scholar and Keynes's "protegé" at Cambridge from 1927 on (Pasinetti 2007, p. 136). According to their correspondence, there are signs of "Keynes's reliance on Sraffa for Marxian matters" in 1928 (Ranchetti 2013, p. 137). There is a further letter from Keynes with the passage (ibid.)

> [Keynes to Sraffa:] I made a good try at the Marx volumes, but I swear that it absolutely beats me what you find in them, or what you expected me to find! I did not discover a single sentence of any conceivable interest to a rational human being.
>
> (letter 1433, 5 April 1932)

This seems to say all about Keynes's assessment of Marx, in spite of all his sympathy for Sraffa as a person.

Sympathisers of Marx-oriented Keynesianism could hope for some reassurance from the fact that there is a draft chapter for the *General Theory* from 1933 in which Keynes remarks (JMK, 29, p.81):

> The distinction between a co-operative economy and an entrepreneur economy bears some relation to a pregnant observation made by Karl Marx,–though the subsequent use to which he put this observation was highly illogical.

Thus, even in this context Marx is presented as "highly illogical". Keynes dropped mentioning the "co-operative economy" altogether in the *General Theory*. There is no sign that he ever had second thoughts about the "illogical" nature of Marxian economics.

Apart from Sraffa, there was a second channel for a Marxist orientation in model building, namely via Richard Kahn, according to Joan Robinson (1953). He was a special member of this group in that he was the only one among them who, as Keynes's "favourite pupil" (Marcuzzo 2013), had direct access to Keynes at that time. He thus served as 'liaison officer' or, as James Meade, the most junior member of the Circus, put it: Kahn was the "Messenger Angel" between the 'mortals' of the Circus and the distant 'God' Keynes. Kahn carried forth elements of the group's discussions and brought back the reactions of 'God' Keynes (Moggridge 1973). As we will see instantly, years later Joan Robinson referred to Keynes as "snob". Her husband Austin Robinson (1994, p. 9) had a different complaint: "The rest of us never quite knew which of our ideas and suggestions had reached Keynes." But the lack of clarity must have been the other way round as well. How were the other participants to know whether Kahn's reports, supposedly coming from 'God' Keynes, were authentic?

It is in this mental setup that Joan Robinson was introduced to Keynes's way of thinking. As Joan Robinson (1953, p. 8), more than twenty years later, told the Cambridge students in a series of little publications on Karl Marx (her emphasis):

> Keynes *was* a snob. . . So he never explained himself. . . Professor Kahn is not a snob. He takes infinite pains to explain a point to you, whatever school you come from. So when the first controversy broke out over the *Treatise on Money* he reinvented Marx's schema for Simple Reproduction in an endeavour to explain what Keynes was doing.

Marxian Simple Reproduction refers to a stationary state with no net investment. This is not what Keynes intended to model in the *General Theory*. Such Simple Reproduction is also not what Malthus's effective demand is about. But if the "Messenger Angel" Kahn came from 'God' Keynes–the "snob" who declined to explain himself–then these ideas must have had great importance somehow, especially if Richard Kahn took "infinite pains" explaining them.

Whether the above is true in some way – objectively, subjectively, temporarily, in group or only in intimate togetherness – this will never be known. Joan

Robinson ended her report about Richard Kahn's "infinite pains" by adding parenthetically (p.9): "This was in oral discussion, not published." Joan Robinson's husband and co-participant of the Circus, Austin Robinson (1994) has not a word and no allusion concerning Karl Marx when reporting about "Richard Kahn in the 1930s".[44] As Moggridge (1973, p. 338) reports, editing the few literary leftovers which did exist or survive: "Practically no documentary record of their discussion remains".

In any case, for Joan Robinson the encounter shortly after 1930 with Marxian long-period analysis no doubt was a real one which formed her future work. Even before Keynes's *General Theory of Employment* was published, Joan Robinson (1936) had finished an article about "The Long-period Theory of Employment" with the intention (p.74) "to outline a method by which Mr. Keynes' system of analysis may be extended into the regions of the long period". It was published in February 1936. Joan Robinson explains (ibid.): "In this situation, provided that the given conditions have endured for sufficient time, investment will have ceased." She elaborates (p.78):

> effective demand disappears from the picture, since in [long-period] equilibrium investment is equal to zero, and it is with the long-period effects of a fall in the rate of interest upon consumption that we are alone concerned.

It is unimaginable to this reader that Keynes did not clench his teeth when he read that effective demand "disappears" and that the main focus is now on the influence of "the rate of interest upon consumption"–as if Keynes had not written: "aggregate consumption mainly depends on the amount of aggregate income" (GT, p.96).[45]

Marcuzzo and Sardoni (2013, p. 183), reporting about the correspondence between Keynes and Joan Robinson, observe: "Initially Keynes did not object to the exercise of extending his results to the long period". But they note also that when later "the issue of the long period came up again" Keynes wrote to Joan Robinson (inter alia)

> "[I]s [it not] a contradiction of terms to talk of the theory of profits in the long term? . . . But you start off with the assumption that there must be such a theory. Why? (letter 1860, 24 January 1941)

It seems that in the end Joan Robinson admitted that she had no good answer to Keynes's "Why?"–at least none that convinced herself.[46] But it would lead

[44] Neither does Harcourt (1994) mention Marx in connection with Richard Kahn and Keynes.

[45] It should be emphasised that Joan Robinson never claimed that it was Keynes who wanted to devise a long-period theory of economic activity of her making. "Certainly it is true to say that Keynes' theory is in purely short-period terms." (Joan Robinson 1979, p. 179).

[46] Bradford and Harcourt (1997, p. 126): "Joan Robinson herself was pessimistic, indeed, nihilistic, about the economic theory of the long period".

too far if we went much further in the attempt to trace details of the discussions of the Cambridge Circle group and of their later associates forming the "Cambridge Keynesians". It must suffice to note that forty-five years after Keynes, in 1933, had pleaded to acknowledge Robert Malthus as Cambridge's 'First' and paradigmatic economist, Joan Robinson (1978, p. xii) told the community of Post-Keynesian economists:

> We now have a general framework of long- and short-period analysis which will enable us to bring the insights of Marx, Keynes, and [Marx-inspired] Kalecki into coherent form and apply them to the contemporary scene, but there is still a long way to go.

Keynes obviously was wrong when, in 1942, he wrote to Joan Robinson that her publications hopefully "give the quietus [i.e. death blow, GMA] to these discussions by doing Marx that justice he deserves", Keynes referring here to discussions which "attempt to make sense of what is in fact not sense."[47] As far as Malthus is concerned, one can gather from Joan Robinson's Marx-oriented 'pep talk' of 1978 that for the Cambridge Keynesians he had gone totally out of sight.[48]

It would be quite wrong, however, to name or blame just Joan Robinson in connection with the failure of the followers of Keynes to take up the Master's suggestion concerning Malthus. We have now a magnificent documentation and digestion of 2855 letters involving Cambridge Economists. It covers the time span of Keynes's entire academic life at Cambridge (Marcuzzo and Rosselli 2013a, 14-5, Table B). As that book's index shows, not a single one of these Cambridge related letters ever mentions "The First of Cambridge Economists" (to use Keynes's circumlocution); but there are seven entries, covering at least nine instances, relating to that–according to Keynes–"highly illogical" Karl Marx.[49]

[47] Quoted from Harcourt (1996, p. 336).

[48] Joan Robinson (1979, p. 179) certainly remembered what Keynes thought. He "over-estimated Malthus": Keynes "put into one box everyone, from Ricardo to Pigou, who neglected effective demand and over-estimated Malthus because he did not". But Keynes's demarcation was by paradigm, not just by jargon.

[49] In fact, in the body of the book there is one letter with the name of Malthus, namely one by Keynes himself from 28 May 1942, telling Pigou that he was totally overworked and could not prepare anything more on Malthus (p. 167). Probably this instance escaped the electronic search of the text. In the copy of the book consulted by this author, for an unknown reason Malthus's name is written with a gap as "Mal thus". It seems that it is not generally known that, as Keynes has pointed out in 1933, this name comes from "malt house" (see footnote 1 above). This knowledge would not have healed the break in the name, but it would at least have suggested a break which is more authentic.

6 Summary and conclusion

Since the middle of the 1930s Keynes (1933, 1935, 1936, 1937) propagated the project to "glorify" Malthus, to use Schumpeter's somewhat disparaging expression, to "overestimate" him, as some others would say.[50] About eighty years later it can safely be said now that Cambridge Keynesians have not been very receptive. Maybe it is to their detriment.

Keynes's programme was not just a propaganda ploy for better sales of the *General Theory*'s doctrine of short-period "effective demand". Nor was Keynes's motto a snobbish slogan of a Cambridge don claiming: "effective demand must be good because Robert Malthus invoked it already–and he was also a Fellow of a good Cambridge colledge." It is argued in the above that Keynes's concern was rather the future of Cambridge Economics as such in view of the sustained assaults from the Cannan School, especially after the extremely able Lionel Robbins had become its new master-mind.

We claim that Keynes, with his keen philosophical perception, knew that from the beginning of the 1930s on a new era of economic theorising was ushered in. Lionel Robbins (1932) propagated the Neopositivism of the Vienna Circle as basis for economic methodology. We know by now that in economics that school delivered little with regard to allegedly value-free critical rationalism, allegedly cultivating economics as science of scarcity which gathers new knowledge under the watchful control of the Popper-criterion, all "real" scientists bent on the falsification of falsifiable formulations.[51] But the successful propagation of Neopositivism turned out to be an efficient ploy to sideline Marshall-oriented Cambridge Economics as being based on allegedly unscientific value judgements. The neopositivistic stance succeeded because traditional English empiricism had no ready counterargument. In any case, Cambridge's A.C. Pigou as custodian of Marshallian economics had none.[52] Positivism-critical European continental idealism was weakly represented in the English-speaking world and supplied no convincing arguments against Robbins's economic methodology.[53] Certainly Alfred Marshall's and McTaggart's cultivation of some Hegelian ideas at Cambridge did not affect Joan Robinson's thinking in any way in spite of her temporary adoption of "Marx's unit of value".[54]

[50]See the preceding footnote 48.

[51]See Lionel Robbins's (1981, p. 2) confirmation of his earlier methodological position: "I see no reason for denying to the study of the activities and institutions created by scarcity the title of [economic] science…, as Karl Popper has taught us, as a search for falsification".

[52]This is well documented in ch. 6 of Aslanbeigui and Oakes (2015).

[53]See Howson (2011, p. 233): "The most vociferous critic was Ralph W. Souter (Souter 1933), a Marshallian (and Hegelian) economist, who was then teaching at Columbia University". But this critic made no impact. Howson (p.234) reports that Machlup commented on Souter's book with the same critical objective that it was "more heavily interlarded [sic] with Hegelian philosophy than a normal economist can stand".

[54]Joan Robinson (1953, p. 23) proclaimed: "[W]e are back on Ricardo's large questions, and we are using Marx's unit of value…Do not for heaven's sake bring Hegel into it. What business has Hegel putting his nose in between me and Ricardo?"

In the eyes of Keynes, Marxism was no "progressive" rational alternative to Marshall or other "bourgeois" economists. As far as economics was concerned, *Das Kapital* was not more convincing for him than the *Koran*.[55]

It is before this background that we have to appreciate Keynes's project to bring Malthus to the fore who was certainly safe of positivistic attacks against Cambridge economists' allegedly unscientific subjectivism, Malthus (1836, p. 33) having proclaimed:

> If then we wish, with M. Say, to make political economy a positive science, founded on experience,. . . the line which it seems most natural and useful to draw, is that which separates material from immaterial objects.

Keynes (1935, p. 108) ended his centenary allocution for Malthus with

> I believe that a century hence, here in his Alma Mater, we shall commemorate him with undiminished regard.

There are less than twenty years for making this prognosis to come true in 2035. If we take Keynes's regard for Malthus as measuring rod, "there is still a long way to go", to paraphrase what Joan Robinson once told Post Keynesians–but not with Malthus in mind.

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[55] Letter to G.B. Shaw, 2 Dec. 1934, JMK, 28

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