

F.A. Hayek vs. J.M. Keynes in Shackle's marginal gloss.

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Abstract

The intellectual rivalry of F.A. Hayek and J.M. Keynes has recently caught the attention of historians of economic thought, journalists and the broad public. However, how was it viewed at the time? This article uses archival material in the form of marginal annotations made by G.L.S. Shackle to determine contemporary reading responses to the theoretical developments of the 1930s. Shackle's unique reading style that includes legible, dated, annotations and the fact that a substantial part of his academic library survives, gives us a unique vantage point from which to explore anew this period of intellectual history.

Keywords: Hayek, Keynes, Shackle, Common Reader, Marginal Gloss

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I. Introduction

[This example] leads us back to where we started: the distinction between marginal gloss and marginalia. One method -the marginal gloss, or science of notes- aims at a constant refining of thought, an omnipresent rationalising will that fans out (like the later style of Henry James) towards fuller and fuller explanation. The other -marginalia, or the art of digression- engages in the spontaneous generation of afterthoughts, signifying with its arbitrary departures that no two thoughts are the same, no explanation is final. (Lipking 1977, 648-649)

It is on this taxonomic distinction, drawn by Lawrence Lipking, that this article is based on. Its argument is that the copious notes that G.L.S. Shackle took throughout the 1930s and early 1940s on the margins of books and academic periodicals form a literature that allows us to explain and make intelligible the theoretical developments of the period. But before developing this thesis and arguing in favour of the importance of Shackle's marginal annotations in revealing crucial aspects of the intellectual atmosphere of the period, I provide some context in the form of a digression.

Modern studies in the field of English literature have investigated these odd markings made by readers at the edges of published books. In fact, writing marginalia has been considered an almost recognized literary activity at least since Samuel Taylor Coleridge coined the term, and six volumes of his marginalia were published. This is not to suggest that the activity of writing in the margins of books started in the 18th century, as it is as old as writing itself. And, of course, the margins themselves are also used by the authors of the main text in a variety of ways. The complex relation between text and subtext has many layers, with the fight over their relative position on the printed page being the most startlingly physical one. Printed work today exhibits this rich heritage, and we find the main text and its paraphernalia (footnotes, endnotes, chapter headings, marginal glosses) all following, to a degree, established conventions. And yet which conventions they follow differ depending on what the author is trying to do. Academic papers in journals deal almost entirely in endnotes and footnotes, whereas critical editions and variora of important books may utilise a form of marginal gloss. Gloss as a word used to have a different meaning to its contemporary common use. It is derived from Greek and as Jackson informs us the "gloss, in its primary sense, translates or explains foreign or obscure words; its expanded forms are the translation and the paraphrase. It operates at the most literal of levels, and aims to be faithful to the work it mediates" (Jackson 2001, 45). Glosses then have a didactic purpose and a purpose to elucidate the text. It is not coincidental that their older and more established use as text supports is in religious books, and most commonly, in the west, the Bible. In fact, as Lipking in his seminal and thought provoking article (Lipking 1977) informs us, this earlier form of text explanation was the established form prior to the invention of the footnote.

Without going further into this interesting history on the transformations of the margins of the printed page, we can now return to the distinction between marginalia and marginal gloss. Lipking's articulation of this distinction is tantalisingly original, but although robust within its frame of reference, it appears inapplicable if one takes a few steps back. Why work with this taxonomy if your interest is in one literary figure and his/her interaction with other people's texts? A person's literary work both 'fans out', as his/her output further explains what is the unifying thread of everything he/she produces; his/her character and the nature of his/her thought; while digressing every step of the way as new thoughts occur. In this setting the distinction between marginalia and marginal gloss

appears simply stylistic. However, the distinction is more meaningful if used for another purpose, which is not to assess an individual's interaction with a text, but to gauge the anonymous, the 'average' reader and his/her relation to a text. In this context the distinction gains both power and content.

Recent work in the field of English literature has started investigating the history of reading, and has looked beyond the reading notes of celebrated individuals into the experiences of 'common' or 'average' readers. In this expanding field of study marginalia by anonymous hands have received renewed interest as "potentially a goldmine for scholars" (Jackson 2001, 6). In fact Jackson starts his seminal book on marginalia (Jackson 2001) by noting that the British Library in 1998 bought a copy of Galileo's work on sunspots, titled: *Istoria e di-mostrazioni intorno alle macchie solari* (Rome, 1613) not because it did not have a copy of the book, but because the book contained very interesting annotations by contemporary but anonymous hands (Jackson 2001, 1). The interest therefore is to see what literate but unknown (to us at least) readers of the period made of Galileo's pioneering work. If these notes are not unconnected personal musings, of the type Coleridge would occasionally leave in the books of his friends¹, but instead are efforts to understand and explain or even argue with the scientific positions of the text, then we would have an invaluable resource on the contemporary reception and dissemination of Galileo's work. And thus these notes, although effectively marginalia by different readers, start to appear more like a gloss that attempts to explain the text and make it intelligible, by mediating between the text and its next reading.

It is in this frame of mind that I approached G.L.S. Shackle's marginal annotations from the 1930s and early 1940s. The focus is not so much Shackle as the important theorist and his intellectual path towards his seminal contributions in later life, but instead Shackle as a reader,² a known but peripheral actor in the theoretical developments and academic debates of the 1930s. As a reader he has left us an extensive heritage of marginal annotations in a variety of academic journals and books. These annotations appear more like a running narrative -a marginal gloss- on the developments of the discipline, incorporating and interacting with new texts as they were coming off the press into circulation. Shackle as an informed contemporary reader gives us a unique insight on the reception of the pioneering ideas of the 1930s. Furthermore, this material, viewed from this perspective, allows us some freedom in constructing and inspecting a variety of narratives of what happened during the 1930s that illuminate different aspects of the transformation and dissemination of key economic concepts and theories.³

¹ Jackson informs us that "in Charles Lamb's copy of the plays of Beaumont and Fletcher he wrote, 'I will not be long here, Charles!—& gone, you will not mind my having spoiled a book in order to leave a Relic.'" (Jackson 2001, 7) This book became a relic only because the margin was spoiled by a famous hand, otherwise this marginal note holds little use if it was made anonymously, as a rather trivial bit of marginalia.

² There has been some recent work on the concept of the common reader in economics, and a first study can be found in (Lamm 1993). More recently, scholars have worked on the popularisations of contemporary economics and the development of a literature called 'Economics for Fun' (see e.g. Vromen 2009, Fleury 2012, Maki 2012). The view of the economist as a public intellectual has also been explored in a recent annual supplement of *HOPE* (Mata and Medema 2013). Furthermore, in (Repapis 2014b) I discuss the use of book reviews in the work of G.C. Harcourt in informing the academic community on the developments in economic theory. It is interesting, however, that marginalia have not, yet, received attention in this field of study.

³ By focusing on Shackle as a reader, we do not explore here the link of these readings and his annotations to the later development of his thought. Shackle's later work on expectations has been explored in some detail by scholars (for recent contributions in this literature see Earl and Littleboy 2014, Zappia 2014, Latsis 2015). However, the early formation of his ideas during the 1930s is still an under-researched topic, partly because this material is not very widely known.

The paper is structured as follows. Section II gives us a detailed account of Shackle's life until the mid-1940s so that we can put his reading habits, and the system of marginal annotations that he developed, in context. Section III describes the system of marginal annotations that Shackle developed and employed during this period of his life. Section IV uses this material to investigate and give detail on a famous narrative of the 1930s, the academic debate between F.A. Hayek and J.M. Keynes. Section V widens the net, exploring the same period from another angle. Section VI considers some concluding thoughts on the uses, limits and abuses of this material when doing research in the history of ideas.

II. A biographical note on G.L.S. Shackle up to WWII

George Lennox Sharman Shackle was born on the 14th of July 1903 and died on 3rd of March 1992. He was the only child of Robert and Fanny Shackle. He was born in Cambridge, where his father had lived, on and off for a considerable part of his life –Robert was also born in Cambridge- working as a school examiner. George attended the Perse School in Cambridge, until the age of seventeen, following in his father's footsteps (Ford 1994, 4).

His early interest appeared to be partly in maths, due to his father's influence, and in Latin. As James Ford notes in his biography of Shackle, had George entered University at that time, he would, most probably, "have read for a degree in Latin (he maintained that his Greek was not up to a standard adequate for a degree in Classics) or in the Romance languages" (Ford 1994, 4). George's early childhood appeared to be rather solitary as he was without siblings. He recollects: "as a child I had at first only one playmate, my father, a mathematician" (Shackle 1988, 230). Furthermore, of the social life of the Shackles in Cambridge during the early period of George's life not much is known. Tantalisingly, Geoff Harcourt's interview of Shackle in 1981 notes that Robert Shackle "had been a Wrangler, and coached the young Maynard Keynes for the scholarship examination for Eton" (Harcourt 1981, 136). But further information on their involvement with the academic community in Cambridge at the time is lacking. Nevertheless, as Ford points out, from what we know George was clearly "nurtured in an academic environment" (Ford 1994, 4).

However, even though this upbringing was intellectually stimulating, it was not financially secure. Thus, while in 1901, around the time of George's birth, the "census lists Robert as having his own establishment (with servants) in Fitzwilliam street, Cambridge" (Earl and Littleboy 2014, 27) by the time George finished school he was not able to take up a position at St. Catherine's College, Cambridge, and instead "assumed employment as a bank clerk" (Ford 1985, 4). Shackle suggests that it is this job in banking that started his interest in Economics. He writes "it is then, however, that I started to read economics as a likely path to lead sometime to a university degree; a path suggested by the nature of the bank's business" (Shackle 1988, 230). Harcourt writes that he was at the time reading Sir Sidney Chapman's *Outline of Political Economy* (Harcourt 1981, 137), in the limited time he had, usually "an hour in the middle of the day for study" (Shackle 1988, 230). He remained in banking for nearly four years, and after "an unsuccessful year working for a tobacco firm in London" (Ford 1994, 5), he became a school teacher for nearly ten years.

It is during this period as a school teacher that he started to move ahead with his academic career. He decided to complete an external degree at the University of London, to make up for the fact that he could not take up his position in St. Catherine's. This was in Latin, French, economics and modern European history (Harcourt 1981, 137), and it was awarded in 1931. 1931 is a watershed year for

Shackle for another reason as well. He read, for the first time, *A Treatise on Money* by John Maynard Keynes and *Prices and Production* by Friedrich A. von Hayek. In later life he called these two books his “sealed orders” for his career and his reminiscences of their first reading is full of lyricism (Shackle 1988, 231). He also started reading academic journals, and his Cambridge archive holds the June 1931 issue of the *Economic Journal*. We also know that he subscribed, around this time, to *Economica* (Harcourt 1990, xviii) and, presumably to the *Review of Economic Studies*, as the first issue is in his Cambridge archive, and he had also contributed there his first academic article (Shackle 1933).

Most importantly, his involvement with the research students who had started the *Review of Economic Studies*, meant that he learned about the opening of a Leverhulme research studentship at the LSE. He applied for it and was interviewed by a committee that included William Beveridge, Lionel Robbins and Lucy Mair. After the interview he went to tea with Friedrich Hayek (Harcourt 1990, xviii), presumably their first meeting, who was to become his Ph.D. supervisor. He took up the studentship in 1935.

The next year and a half is one of the most intellectually exiting periods of his life. Joining the LSE on January 1935 meant that he attended two set of lectures by Brinley Thomas on Myrdal, Lindahl and the Swedish School of Economics that impressed him greatly. Thomas had just returned from a year in Sweden and was lecturing on theoretical developments there that had yet to be widely known in the UK. Shackle recalls that he was one of the six students who attended these lectures (Harcourt 1990, XIX). At the same time he was also attending John Hicks’ lectures on economic dynamics, which “became the dynamics part of *Value and Capital*” (Shackle 1990, 193).

During his LSE years, Shackle was attending Hayek’s Thursday evening seminars, which had an impressive list of academics delivering papers. Shackle remembers that “Hayek was there, Robbins came once or twice, and there were also John Hicks, Nicholas Kaldor, Abba Lerner, and Ursula Hicks [then Ursula Webb]”⁴ (Shackle 1983, 1). Furthermore, Ludwig Lachmann was working as a research student under Hayek at the time. There was also another seminar, run by Robbins on Monday afternoons, that Shackle described as a more “work-a-day pedestrian affair” (Shackle 1983, 1).⁵ Furthermore, LSE had at the time a host of visiting academics mainly from Central Europe who gave lectures either at the Thursday seminar or during other days. Shackle recalls “some of these were famous—Karl Popper, for instance. I heard him give the first lecture he ever gave in England. Then there was Gottfried Haberler, and Fritz Machlup; Paul Rosenstein-Rodan was also in London” (Shackle 1983, 1). Finally, we also know from the Cambridge archives, that this was a period in which Shackle read heavily and made extensive notes on the latest theoretical developments published in academic journals at the time.⁶

⁴ This list is not exhaustive, Shackle notes in a letter to Frowen on 1962 that “The Hayek seminar at LSE in my day included both Paul Chambers and Sir Robert Shone” (Frowen 2004, 105). Both Sir Paul Chambers and Sir Robert Shone became distinguished economists, working both in industry and academia.

⁵ Recollections on the importance of the two seminars vary between contemporary accounts. For example Susan Howson in her biography of Lionel Robbins writes “Most recollections are, however, of the ‘Grand Seminar’ especially in 1933/4 – 1936/7 when it took place on Monday afternoons” (Howson 2011, 251). Instead it appears that Shackle found the seminar organised by Hayek for the LSE graduate students as more memorable and intellectually stimulating.

⁶ Incidentally, he also read Thomas’ article in the March issue of the *Economic Journal* on the Swedish economist David Davidson (Thomas 1935). This was at the same time that Shackle was attending Thomas’ lectures. In fact, the majority of his readings during the 1930s were of articles written by people who he knew personally to some degree, either as teachers, colleagues, or even examiners for his Ph.D. thesis. Being a PhD student at the LSE, visiting Cambridge for a research conference in 1935, and getting his first posting in Oxford,

In October 1935 Shackle went to Cambridge, where the first meeting of the joint London, Cambridge and Oxford research students' seminar took place. Shackle writes: "we arrived there one Sunday in October and in the afternoon we heard two lectures. One was by Joan Robinson and one by Richard Kahn" (Shackle 1990, 193). These lectures made a huge impression to him, as "I was at the time writing a thesis on Hayekian lines and I was not getting anywhere with it" (Shackle 1990, 194). He recalls how the idea occurred to him then of developing a thesis that combined Myrdal's ideas (as he had heard them through Thomas' lectures) with the ideas developing to be *The General Theory* (as he was introduced to them by Robinson and Kahn). Back in the LSE Shackle asked Hayek if he could change the subject of his thesis, and [Hayek] "proved himself the most magnanimous man that I have ever met in making such a request. He allowed it, and I switched from Hayek to Keynes and I tried to do what I have just explained" (Shackle 1990, 194). During this period he wrote extensively on theory, and he published his first article in *Economica* (Shackle 1936) and his second article in *The Review of Economic Studies* (Shackle 1937a). Furthermore, Shackle also attended the Econometric meeting at Oxford during the summer months of 1936 (Harcourt 1981, 139). There he heard three papers on the General Theory, "by Harrod, Hicks ("Mr. Keynes and the Classics"), and Meade" (Harcourt 1981, 139).

Upon completing his dissertation in February 1937, and being examined by Hayek and Redvers Opie, Shackle was offered a position in Oxford. There he worked as a research assistant to Henry Phelps Brown at the Oxford Institute of Statistics, with an affiliation to New College. During this period he re-wrote his thesis, which appeared in May 1938 under the title *Expectations, Investment and Income* published by the Oxford University Press (Shackle 1938 [1968]). Shackle remained at Oxford until 1939, working with Phelps Brown. They published together a number of papers and a pamphlet on empirical work on money and business cycles (Brown and Shackle 1938a, 1938b, 1939) and by himself two more theoretical papers (Shackle 1939b, 1939c). This publication output led Shackle to his Oxford D.Phil., which was titled "The process of recovery from trade depression, with special reference to Great Britain, 1931-6" (Oxford University Archives, FA 4/18/2/5). It was examined on February 3, 1940 by Roy Harrod and Charles Hitch in the Taylor Institution, Oxford.⁷ Furthermore, during this period Shackle wrote three book reviews for the *Economic Journal* (Shackle 1938, 1939a, 1939d), which shows that by now he had become a recognised member of the academic community.

During the summer, he moved to Scotland to take up a lectureship at St. Andrews (Harcourt 1981, 141). This was short-lived, as WWII broke out in September 1939. During WWII Shackle worked in S Branch, Churchill's "private circus of economists" (Harcourt 1981, 141). Harrod had found Churchill the economists he needed from among the research assistants of the Oxford Institute, which included Donald MacDougall, Helen Makower and Shackle. Later David Champernowne and David Bensusan-Butt also joined the group. The S branch lasted until the 1945 elections at the end of the war. Shackle continued doing research even during this busy time. During the war he published a substantial number of articles (Shackle 1940a, 1941, 1942, 1945a, 1945b), comments (Shackle 1940b) and book reviews (Shackle 1940d, 1940c, 1943, 1944). After the war, he would also publish

meant that he came into sustained contact with the majority of British academics working in economic theory at the time.

⁷ The degree was conferred on 5 June, 1940. Shackle does not appear to have submitted these papers in a thesis format, and the Bodleian Library holds no copy of Shackle's thesis. The examiner's report notes six papers "which have appeared in learned journals" and then adds "Three of these were elaborate statistical calculations on closely related subjects while two give a theoretical discussion of the trade cycle" (Oxford University Archives, FA 4/18/2/5). It is unclear if there was a sixth paper, it could be an earlier publication in the RES (Shackle 1937a) or *Economica* (Shackle 1936), or a typo in the examiner's report, and they considered only the five papers previously mentioned.

his second book *Expectations in Economics* (1949). He must have felt particularly proud to review Lindahl's *Studies in the Theory of Money and Capital* for the *Economic Journal* in 1940 (Shackle 1940d), only five years after he had started as a new Ph.D. student in the LSE sitting in Thomas' lectures on the Swedish school that he had found so inspiring.

III. Shackle's Reading Habits

Hell is other people's texts (Lipking 1977, 650)

What survives from the 1930s and early 1940s in G.L.S. Shackle's papers is a substantial part of his working library that includes both books that he owned and periodicals that he subscribed to during this period of his life. In (Repapis 2017) I give an account of his working library throughout his lifetime, and a detailed account of all the books and periodicals that survive from this period and the various archives and libraries that they can be found in. Repapis (2017) argues that this collection of books and periodicals seen in its entirety constitutes one of the most extensive collections of material that we have of a contemporary academic reader in economics of the 1930s in British academia. This material is even more valuable if we consider Shackle's reading habits, which exhibit some unique characteristics.

Shackle's reading habits have been noted in (Littlechild 2000) who writes:

First, these are not the hastily scribbled and often-indecipherable comments and !? symbols that one often sees (and makes himself): in contrast, they are carefully considered, grammatical and clearly written, with longer comments written on a separate sheet and pasted in. Second, they are often dated, so that a diligent scholar might trace the development of Shackle's thought. Third, being primarily for private use, they are often expressed in more direct language than Shackle might employ in a published book or article or even a letter (Littlechild 2000, 334).

Littlechild touches on a host of interesting issues relating to Shackle's reading habits that merit a more detailed investigation. I discuss these in turn.

First, it is worth expanding on the types of marginalia that Shackle did. Broadly we have the following types of annotations: 1) He made vertical lines on the side of the text as a highlight to a notable section, phrase or sentence. 2) He placed a date at the end of a reading, occasionally with an indication what reading that was. The typology he usually used was first, second, third, etc. Occasionally he used terms like 'fresh' reading, or 'reading in one sitting' or 'one day'. 3) He made marginal notes, usually dated, relating to a specific point in the text. He was usually explicit on which part (word, sentence or paragraph) of the text the comment relates to. He did this either by use of the aforementioned vertical side-line, or, by placing a pseudo-footnote (1,2,etc) at the word or sentence he was focusing on and then in front of the relevant annotation. If the note was long or the margins had no space left he attached loose leaf pages and articulated his thoughts further. 4) Finally, and only rarely, there is a loose leaf page with a summary of an argument in the article or part of the article. It is interesting to observe that in all cases the printed text remains clear and legible for future reading, even when marginal annotations crowd almost every part of the page leaving no blank space. An example of a heavily annotated page can be found in Appendix A.

Second, the dates on the margin give us a wealth of information on Shackle's reading habits and timeline. His biographers have noted that Shackle was a workaholic; he worked through weekends and even holidays. Ford notes how Shackle was reading Meade's *The Rate of Interest in an*

Progressive State (1933) “on New Year’s Day 1935” (Ford 1994, 14). At the same time Shackle was usually involved in a host of different activities, so his time for reading was always limited and fragmentary. This may explain this rather odd practice of dating every reading. After all, many readers turn in a page corner or even draw a line to indicate where to pick up next. But a dated reading appears to be a much more formal and elaborate affair.⁸ Part of this may have to do with temperament and family/personal habits, and Shackle’s clearly written marginalia and approach to the text shows that he took this activity very seriously.⁹ But it also seems to be a habit that suited well his overcrowded day.

Another interesting characteristic that arises from a careful consideration of his dated reading annotations is that he appears to occasionally use different reading styles that focus on different aspects of the text. By this I mean the following: in his most involved readings he started reading an article by working on and trying to understand technical elements of the text. This led him to question the use of specific words or arguments, and his discussions/elaborations are noted on the margin. Occasionally he also expanded on and discussed the mathematical formulas in the article, or drew a diagram in his effort to understand and test the internal logic of what he was reading. However this could be a long process taking a number of days, and we have examples of Shackle reading the same article for weeks or even a month with gaps in between (see table 4 in Repapis (2017) for examples of this practice). This inevitably gives the reader a very fragmented view of that article, and it is interesting to note that Shackle was aware of that. This is why he sometimes notes, in articles with which he was heavily involved with, readings “of whole article completed in one day”. This reading presumably focused on the overall picture the article was trying to convey, stepping back from the various technical considerations. It seems that ‘fresh’ readings, noted more frequently, also gave Shackle this distance from a particular reading, being an attempt to get out of the previous frame of interpretation and see the text anew. For texts that really mattered to him, particularly during the period 1934-36 when he was working on his Ph.D. he also used the terms ‘definitive’ or ‘not definitive reading’, to indicate his wish to return to this book or article. This shows that the primary objective of Shackle’s reading, even early on in his career, was to get a general view of the text he was trying to understand, its arguments and its general theoretical vision.

Third, an important question is: what was the purpose of these annotations for Shackle? We explored the reason for the elaborate dating convention above, but to simply say that they are personal notes is too superficial an explanation. What Shackle decided and even did *not* decide to record gives us an indication of his reading habits and motivations. To give a celebrated example, Virginia Stern in her extensive work on Gabriel Harvey’s¹⁰ marginalia, notes that he had three types of annotations (other than also dating some of his readings): “First, there are concise notations or marginal symbols which classify the subject matter so as to make it quickly available to him for future use” (Stern 1979, 141). “Second, there are his critical and supplementary comments on ideas in the text, often pointing out the relevance to historical or current problems” (Stern 1979, 142). “The third type... is not closely connected with the text, and consists of Harvey’s personal reflections, introspections, and precepts” (Stern 1979, 144). Interestingly, Shackle’s marginalia seems to be missing this first type of text use. In Harvey’s time it was a way to find your way around a library and a text quickly, in more modern times, to pick out a quotation for use in your work by marking it as a

⁸ And while these datings are useful for anyone working on the intellectual development of Shackle thought, it would appear odd to suggest that Shackle developed this habit for this purpose from the very beginning of his career. Thus the motivation for this practice must be due to other reasons.

⁹ Harcourt informs us that “Shackle’s mother said of him that he practiced the three Rs - reading, writing and rubbing out.” (Harcourt 1981, 136)

¹⁰ Gabriel Harvey was a renaissance English humanist with an extensive private library.

useful quotation. This is not to say that Shackle did not note e.g. 'A splendid article' or 'Excellent' or, stress passages that he approved of with vertical lines at the side of the text, but this seems to have been a reaction to the text not an effort to separate these passages for a later different use (e.g. quote them in his own work), or an explicit note-to-self to focus on these passages when/if he read this article again. This goes well with what we know of his written work, which, ignores the usual kind of "bibliographical backup that nowadays one normally takes from granted" (Earl 1993, 247). This lack of quotations and thick referencing in his academic work seems to emanate from his habits as a reader. His interest in the articles he read was to capture core ideas and then articulate them in his own words, rather than isolate passages for direct quotation.

This brings me to what seems to be an important element in Shackle's annotations. Articulation in his own words, the creation of a personal marginal gloss as a running commentary between texts is an integral part of reading. This marginal gloss took many forms. It could be arguing with the text by pointing out logical inconsistencies; or, extrapolating from an argument in the text to see if it makes sense when generalised. It could also take the form of summarising part of the text, building diagrams and working out the technical details to his satisfaction. In this Shackle was following a well-trodden path in doing economic theory, where complex deductive argumentation forms a core component of the discipline. Thus, we find comments of the following form: "My exposition/argument (2) interpreting/developed from Hayek, works if we can make the following assumption:" (On loose-leaf page between pages 268-9 in Hayek (1935), Add. 7669 Box 17)¹¹. Shackle comments directly on this type of internal dialogue in relation to the lectures he heard by Joan Robinson and Richard Kahn in October 1935. He recalls:

The one by Joan Robinson was something nearly approaching what I might call a revelation to me. I mean a revelation almost in the spiritual sense, because she made perfectly clear almost entirely, I think, what the General Theory was going to be and what was its theme. And then Richard Kahn follows up with a lecture in a style typical of his younger days; he tried to tease the audience. He would give us a highly provocative sentence and await the look of astonishment and dismay on the faces of people listening to him. But I thought that I could make use of this way of lecturing. I said to myself that I would try to anticipate the last half of the sentence when I heard the first half. And I found that I could. And this showed me that I had really understood what Joan Robinson has been saying. (Shackle 1990, 193-194)

There is a broader element at play here that transcends the specific article or lecture that Shackle was reading or listening to. Shackle, like many of the young economists at the time, was interested in seeing the theoretical consistency between the different contributions and the picture they synthesised. The 1930s was a period of rapid development in neoclassical theory, both because of the advances proposed by its supporters and because of the Keynesian challenge. Shackle was bringing in his reading this broader discussion in a number of ways. First, he was occasionally adding notes that explicitly explored these links. For example, when reading The Period of Production and Industrial fluctuations by Martin Hill on December 1933, he reviewed an argument by Hill and then adds "and its possibility does not invalidate the argument that a crisis could arise in the way Dr. Hayek has described." (loose leaf page between pages 604-5 in Hill (1933), Add. 7669 Box 17). In the same article, he also writes "See G.F. Shove's review of Dr. Hicks' 'Theory of Wages', Econ. Journal Sept. 1933" in an annotation where he discusses how "a rise in wages by itself does not make new capital cheap" (loose leaf page between pages 604-5 in Hill (1933), Add. 7669 Box 17). Second, by re-reading past articles after reading a new article that influences his thoughts on the matter. For

¹¹ All Add. number references relate to University Library, Cambridge classification system.

example, during a reading of Some Notes on the Stockholm Theory of Savings and Investment I by B. Ohlin, he notes at the margin “General Theory, Ch. 5 read afresh 12:7:38” (margin of page 54 of Ohlin (1937), Add. 7669 Box 17). Finally, by occasionally employing a complicated reading pattern—i.e. reading an article and returning to it after reading other articles in between. An example of what I mean is the following: On the 8/4/34 he did a “partial ‘preliminary reading’” of The Diagrammatical Representation by A.P. Lerner, he then read I.-A note on Relative Shares by P.M. Sweezy on the 12/4/34, (noting it as a “preliminary reading”) and two readings of The Elasticity of Substitution and the Relative Share of a Factor by R.F. Kahn, on the 12/4/34 and 17/4/34. He then returned to Lerner’s article noting a “First reading” on the 17/IV/34. Reading economic theory is never easy, but doing so during the 1930s that brought forth so many new and occasionally half-baked ideas, must have been a daunting—even if liberating—task.

It is worth ending this section by acknowledging how atypical Shackle’s vocal and also formal approach to reading is. Very few readers leave so many marks on the texts they read and even fewer develop and consistently apply such a complex system of marginal annotations during their readings. By creating this complex personal marginal gloss that has a unity of its own due to its sustained structure, the texts read by Shackle share a common side-narrative, a unity imposed on them because of his reading and annotating. This extends beyond the texts that are on economic theory, as Shackle read and annotated books on other subjects during this period; particularly on mathematics. It is an extended note that Shackle wrote on the 10th of January 1946 on the last page of *Introduction to Algebraic Theories* by A. Adrian Albert, that gives us his own account of his reading habits at the time. This is reproduced in appendix B.¹² Thus we have a reader who left us not only with an intricate trail of marginalia, but also with a story of how this trail was produced.

IV. Hayek vs. Keynes: The story from Shackle’s readings

As the previous section and Repapis (2017) show, there is substantial archival material held together by Shackle’s gaze and marginal gloss. The question is how do we utilise it, what stories can this material tell or help further illuminate? One answer is to see it through the prism of a story focusing on the intellectual battle between F.A. Hayek and J.M. Keynes, which is popular today both with historians of economic thought (see e.g. Skidelsky 2006, Backhouse 2014) and the broad public (e.g. Wapshott 2011).¹³

In some ways, Shackle is very well positioned to tell this story. As his biography shows, the dramatic personae of this ‘battle’ come in and out of his academic life with the same frequency that Hamlet crosses Rosencrantz and Guildenstern’s path in Tom Stoppard’s play. Even geography conspires to add colour to the story. Shackle was born in Cambridge, to a father who coached Keynes, did his Ph.D. under Hayek in the LSE, converted to the ‘new Keynesianism’ and then moved to Oxford, coming into contact with the academic communities in these three seats of learning throughout the 1930s. The story that we get from this new material adds texture and detail to this narrative from

¹² A careful reading of this note shows that Shackle was still changing and adapting how he read texts and interacted with them, hinting that he was using different approaches for different types of texts. *Introduction to Algebraic Theories* by A. Adrian Albert, which is a complex algebra textbook, has the most ornate system of annotations, dating notes and interleaving of any of his surviving books, so that we know, for example, when he attempted particular mathematical exercises.

¹³ This literature is very broad and cannot be adequately surveyed here. Perhaps an entry-point into the literature for the non-specialist reader is (Repapis 2014a).

Shackle's unique contemporary viewpoint. It reveals, in almost a diary-like fashion how he viewed and reacted to the theoretical developments in which he also played a part. His story starts in 1931.

Shackle in a number of his writings notes that this date (1931) is key for him as it was when he started reading Hayek's *Prices and Production* and Keynes' *Treatise on Money* and both texts captivated him. In all standard narratives of the Keynes vs. Hayek battle this is a key date, not only because of the publication of these two books, but also because Hayek came to the LSE in 1931. Interestingly, this is also the first dated reading of Shackle that we have. Shackle read J. C. Stamp on Mr. Keynes' Treatise on Money twice on the 28/9 of July 1931.¹⁴ Unfortunately we have no clear evidence on the readings for the next two years from the archives. We know, however, that he contributed an article on Keynes' and Hayek's business cycle theory in the first volume of the *Review of Economic Studies* (Shackle 1933). In this he cites the exchange between Hayek and Keynes on *A Treatise in Economica* (Hayek 1931, Keynes 1931, Hayek 1932) as well as Hawtrey's review of *Prices and Production* (Hawtrey 1932).

Shackles' first publication (Shackle 1933) is one of the first third party accounts of the Hayek vs. Keynes early 1930s controversy by someone who was, at that time, associated neither with LSE or Cambridge. His article starts in a conciliatory spirit:

No reader of Dr. Hayek's *Prices and Production* and of Mr. Keynes' *Treatise on Money* can doubt that each of these authors has developed new aspects of monetary theory which have not been explored by the other. There are also manifestly certain grounds of actual divergence of opinion between them, the interest of which is heightened by the fact that they acknowledge a common starting-point in the work of Wicksell. (Shackle 1933, 27)

This paragraph shows that Shackle was not explicitly taking sides. A careful reading of the article shows that he leaned towards, or at least explained better and devoted more space, to Hayek's theory as well as Hayek's criticisms of *A Treatise*, than directly to Keynes' work.¹⁵ However the spirit of the article is not so much to take sides, but to try to synthesise a position arguing that these contributions illuminate different aspects of the crisis.

An interesting counterargument to this reading is that not much space is devoted to criticisms of Hayek's *Prices and Production*. Hawtrey's review in the February 1932 issue of *Economica* (Hawtrey 1932) is mentioned toward the end of the article and its arguments are generally dismissed. Nevertheless, the most glaring omission is that Shackle does not mention Sraffa's review of Hayek's *Prices and Production* that appeared in the March 1932 issue of the *Economic Journal*, or Sraffa's subsequent exchange with Hayek. Furthermore, this volume of the *Economic Journal* is not included in the Shackle archive either, so we have no way of knowing for certain if he read this exchange, but it is reasonable to suspect that he either did not read it or think it important enough to do extensive

¹⁴ There is no definitive evidence that Shackle read Kahn's The relation of Home Investment to Unemployment at that time, and although the marginal annotations we have are undated, they most probably relate to a later period.

¹⁵ His pro-Hayek position becomes explicit in the following quote: "Dr. Hayek has thus shown that, starting from a position of equilibrium in which all the available resources are fully employed, a situation can arise through the self-intensifying character of disturbances in an elastic-money economy, where some of these resources are for the time being unemployable" (Shackle 1933, 37). Nevertheless, the stress is not that Hayek has shown this to be the case and therefore Keynes' theory is wrong. Shackle instead is arguing that a 'Hayekian type' cycle is theoretically possible, a much weaker statement than an acceptance that this alone explains the great depression.

marginal annotations.¹⁶ One can make all kinds of conjectures from this silence, but it is worth noting that in Shackle's later recounting of this period Sraffa's article is also not mentioned. This is interesting because Sraffa's review has become a key element of the Keynes-Hayek controversy in modern narratives, and it is surprising that at least one contemporary reader does not appear to have taken much notice of it.

The period that follows this publication by Shackle appears to be one of the most reading intensive periods of his life. From December 1933 to October 1935, Shackle read articles by Hayek, Knight, Pigou, Hicks, Lerner, Kahn and many others across these three academic journals (*Economic Journal*, *Economica*, *Review of Economic Studies*). A number of these readings are interesting because they show Shackle's focus on the Austrian Theory of Capital at that time. For example in December 1933 he reads The Period of Production and Industrial fluctuations by Martin Hill (Hill 1933). Hill criticizes the use of Böem-Bawerk's period of production for business cycle analysis which is a core building block of Hayek's theory. Shackle made a number of notes on technical elements of Hill's argument, but remains unconvinced. He writes:

Time-saving invention, occurring after the longer processes had been initiated, might conceivably save the situation, but this effect would be purely fortuitous, and its possibility does not invalidate the argument that a crisis could arise in the way Dr. Hayek has described. The possibility of investment by the government at an uneconomic rate of interest is still less relevant (loose leaf page between pages 604-5 in Hill (1933), Add. 7669 Box 17).

Shackle remains committed to Hayek's theoretical framework during 1934. He reads Hayek's *Economic Journal* article On the Relationship Between Investment and Output, (Hayek 1934) and made extensive notes on technical details, articulating the mechanism in his own words and drawing diagrams in his effort to understand how investment changes the process of production. And while there are, occasionally, small technical disagreements with Hayek's analysis,¹⁷ there is no evidence that Shackle has core concerns with the framework at large. Nevertheless, the reader of the marginal annotations does get the sense that Shackle has some difficulty in coming to a definitive understanding of the article as Shackle revisited the article on three separate periods between June 1934 and April 1935. Between the first and the second periods of reading Hayek's article Shackle reads Knight's article titled Capital, Time, and the Interest Rate that appeared in the August *Economica* issue (Knight 1934). His comments are critical of Knight's analysis. An example from his marginal annotations, shows that he is using (by his own very polite standards) quite dismissive language:

I do not properly understand the footnote on page 263. But this [from the footnote] particular passage suggests that the author ignores entirely a basic fact regarding 'capital': even in a 'stationary state' a certain disposition of productive resources of all kinds would be necessary, for otherwise there would sooner or later be a shortage of some kinds of instruments or materials needed in the manufacture of consumable goods, and the state of affairs will no longer be stationary. This criticism goes to the root of Prof. Knight's conception of capital as an abstract quantity: there is, necessarily, a STRUCTURE, in the aggregate of goods, non-consumable and consumable. No analysis which ignores this structure can explain the effect of such factors as changes in the rate of saving, quantity of

¹⁶ In Repapis (2017) it is argued that the volumes from this period's *Economic Journal* that do not survive most probably did not hold any annotations by Shackle, and that is why they were not deposited in the archive.

¹⁷ He notes, for example, on one occasion "While Prof. Hayek uses these two definitions as equivalent, it would seem that only the latter is correct." (Marginalia on page 219 of Hayek (1934), Add. 7669 Box 17)

money, etc. 22/VIII/34. (Marginalia on page 263 of Knight (1934), Add. 7669 Box 17, underlining and capitalisation in the original)

Therefore, throughout 1934-5 Shackle continues to defend, on the margins, the Austrian Theory of Capital and Hayek's developments of this theory into a business cycle theory.¹⁸ He further read but made no notes on Knight's (1935) *Economic Journal* article.¹⁹ He then read Hayek's Maintenance of Capital in the August 1935 *Economica* issue (Hayek 1935). This is the most heavily annotated article from the 1930s in the archive, with more than 4,000 words of marginal annotations and separate loose notes. The bulk of Shackle's notes are occupied with changes in the technique of production when something in the economy changes and there are various degrees of foresight. Overall, Shackle's discussions deal with a host of complex influences on the production of consumption goods. Issues include: the effect of the distribution of wealth on societal choices of optimum techniques, how individuals would choose between techniques, how peoples' choices could be aggregated, defining the size of a capital stock, etc. The feeling the reader of the annotation gets is that Shackle is still groping for an angle of approach on Hayek's business cycle theory that will satisfy him. He seems to be changing his mind, trying to improve on his understanding, continually reworking his notes. He writes:

Next step: all the notes written today (16:9:35) must now be re-worked so as to take account of the fact that an equipment-assemblage represents sources of future income as well as means which help in producing current consumption 16:9:35 (loose leaf note between 268-9 of Hayek (1935) Add. 7669 Box 17)

Part of the problem is that Shackle was working with theoretical tools that had not yet gained their final form. For example, his notes on individual preference in some (primitive) ways foreshadow part of the technical discussion on choice and welfare that will take place after World War II. Equally, he was working on a framework that Hayek himself was constantly changing, and had still many elements that were neither well-articulated nor fully and consistently worked out.²⁰

His reading of Hayek's article took the better part of September 1935. We know from Shackle's reminiscences that October was his fateful visit to Cambridge, where he heard Richard Kahn and

¹⁸ There is also a very interesting and thought provoking reading by Shackle of Pigou's Net Income and Capital Depletion (Pigou 1935) on September 1935. He reacts to Pigou's comment that "For economics the stock of capital existing at any time is a collection of objects..." (Pigou 1935, 235), with: "The 'size of the stock of capital' possessed by an economy at a given moment of its life has meaning only in relation to a purpose, namely, the time-shape of the economy's intended evolution" (Attached loose leaf note to page 235 of Pigou (1935), Add. 7669 Box 17). Later on Shackle eloquently writes in clear Hayekian spirit: "A measure of quantity of capital, which leaves it unaltered by a change in taste or knowledge but causes it to be reduced by physical wear and tear, is not interesting to the economist any more than to the business man. It is irrelevant." (Loose leaf note between pages 238-9 of Pigou (1935) Add.7669 Box 17).

¹⁹ In (Harcourt 1981, 144) we find that "Shackle does remember reading the Hayek-Knight exchanges on capital theory in the 1930s (he thinks Knight published essentially the same article in four or five different places!)". This memory may be emanating from this reading on March 1935 of (Knight 1935) which he appears not to have found impressive.

²⁰ I have argued elsewhere (Repapis 2011) that Hayek's thoughts on the Austrian business cycle were evolving through the 1930s. In fact, if we are looking for a picture to capture this complex process of Hayek's efforts towards articulation of his thought and its dissemination to his disciples, we need not look further than Appendix A. Page 217 of Hayek's (1934) article in Shackle's archive fully captures the relationship between text and the different layers of marginal gloss, all efforts for more clarity and better articulation. We observe that Hayek not only takes about 40% of the page in footnotes, but that Shackle on top of that encrusts the whole text and Hayek's footnotes in his own gloss. And the gloss spills into loose leaf notes (see the markings of the paper clips on the page), as the effort to fully understand the text's message continues in repeated readings.

Joan Robinson speak, and that changed his mind, converting him to Keynesian analysis. How immediate this change was we can only guess, but the evidence in the archive adds credibility to Shackle's reminiscences. From his dated readings he seems not to have returned to any of Hayek's articles after October 1935 for a re-reading.²¹

Interestingly, the next dated reading after October 1935 in the archive is Pigou's review of Keynes' *General Theory in Economica* (Pigou 1936). He read this on May 1936, and from his marginal annotations he appears to find himself in total disagreement with Pigou's review. He writes: "Pigou does not understand the difference between 'given at any interest' and 'consistent through time' or the meaning of 'short period'. 16:5:36 "(Marginal note on page 122 of Pigou (1936), Add. 7669 Box 17). He concentrates on the section where Pigou discusses the multiplier, and argues that Pigou misunderstands Keynes' multiplier concept. In fact, it is unclear if Shackle read the whole review, and appears to have lost interest after the section on the multiplier.²² Shackle's interest in the latest developments in Keynesians theory from this point forward is evident in his readings. He not only read a number of articles by Keynes (1936b, 1937a, 1937b),²³ and the controversies that Keynes took an active part in (Keynes 1938, Robertson 1938, Keynes 1940, Tinbergen 1940) but also articles by the younger Cambridge Keynesians. His agreement with the Keynesians is occasionally indicated in his annotations, as, for example, when he writes, "excellent article" at the end of Joan Robinson's *The Concept of Hoarding* (marginal note page 236 of Robinson's (1938) Add. 7669 Box 17).

The extent to which Keynes' *General Theory*, and the theoretical developments in Cambridge influenced him from October 1935 onwards is evident in the unpublished introduction of Shackle's LSE thesis. He writes on the 8th of January 1937:

The earlier half of the last year was devoted by the present writer, in common no doubt with most students of economics, to a concentrated study of Mr. Keynes' new book. No writing in this field done during the last eleven months can fail [but] to have been radically influenced by it. The present writer must confess to a considerable change of views, and will probably be accused by some readers of allowing his judgement to be carried away by the appeal of novelty and confident, aggressive presentation. (Shackle 1937b, 6-7)

His readers are his thesis examiners, Hayek and Opie, and one wonders if this reference to Keynes "aggressive presentation" captures something of the mood at the LSE between senior academic members back then. Interestingly, Shackle had still some things to say in favour of Hayek's theory even as late as 1937.²⁴ He writes:

²¹ Therefore, he never returned to (Hayek 1935) for a 'fresh' reading, something which he occasionally had done with other articles that he heavily read in the past.

²² Shackle did not put a date at the end of the article to signify he finished reading it. While this is uncommon it is not the only time this happens..

²³ However, there are few substantive annotations from the period on Keynes' articles, even when there are a number of readings of the article. This is possibly because these were not Keynes' most important theoretical pieces. It would have been interesting to have his notes on Keynes QJE article, but to this as to all his readings of American journals we can only speculate. Furthermore, he did not read everything that Keynes published at the time. To give one example, there is no dated reading for (Keynes 1936a). In this case, it may be that he was not interested in empirical matters on investment, or he thought it to be not an important contribution as it was in the notes and memoranda section of EJ, or for some other reason lost in the mists of time. But the important point is Shackle did not appear to feel the need to read everything that came from Keynes' pen at the time, and especially articles that did not directly relate to theoretical developments.

²⁴ While implicitly also dismissing it as irrelevant in practice. He writes in the introduction of his thesis, "Professor Hayek assumed an initial state of 'full employment', and the investment-boom which he describes

Professor Hayek's explanation why a fall in the rate of interest provides a differential stimulus to investment in different times of industry, having the more conspicuous effect, the more 'remote from consumption' the industry concerned, has some affinity with the theory of the acceleration of derived demand put forward, e.g., by J.M. Clark. This aspect is, I think, very important for any explanation of the business cycle, and finds a place as an integral part of the theory advanced in this essay. Though Mr. Keynes has never been interested in this aspect, it is clearly an extremely important source of violent fluctuations in the marginal efficiency of capital, such as he invokes to explain the business cycle. (Shackle 1937b, 6)

Shackle knew Clark's work from Clark's book *Strategic Factors in Business* (1934) which he owned and read when he was starting his Ph.D. on January 1935. It must have made quite an impression on him, not only because he referred to it two years later in his LSE thesis, but also because he returned to it and did another reading on April 1938. This second reading has a distinct Keynesian flavour. In an extended note attached with a clip on page 44 of Clark's book he discusses what happens when someone buys a house, and notes that this expenditure is an investment in capital assets and not consumption and continues:

The value of new houses constructed in any unit period, in so far as it exceeds what would just make good the current depreciations of existing houses, is part of the economy's current flow of new investment. It is immaterial whether these houses are paid for at time of construction by the intending occupiers, or by a Building Society, etc. In the latter case the paying off of the mortgage will represent a mere transfer of existing assets, and has nothing directly to do with the current level of investment. But the evidence of a hire-product scheme, by enabling large numbers of the public to become active risk-bearing investors, who take the risk of the whole investment at the time when it is made although they at first borrow the money enabling them to order the investment, may be a powerful influence favouring investment. 22:4:38 (loose leaf note on page 44 of Clark (1934), Sidney Jones Library, HB3711.C59)

Thus while Clark's text remains the same, this reader's frame of reference has changed. This example shows how the broader theoretical framework in the mind of the reader creates new narratives while revisiting texts he had read before, and how these texts are now re-worked to fit this new theoretical understanding. Furthermore, what this quote shows is Shackle's developing interest in expectations and the perception they create in the market. His work on expectations, was published in 1938 in his first book (Shackle 1938 [1968]) and this interest is again mirrored in his readings. His thinking on uncertainty was following as well as contributing to developments²⁵ in the Keynesian camp. He read Ohlin's two articles in the *Economic Journal*, noting after finishing reading the first of them on 12/13/7/38 "a splendid article" (marginal note page 69 of Ohlin (1937) Add. 7669, Box 17). Finally, his involved readings of Kalecki's and Kaldor's work on uncertainty and the

is therefore at an expense of consumption. In this essay, however, I have tried to suggest how an investment-boom can develop from the conditions of severe underemployment which in historical cases has always preceded it." (Shackle 1937b, 6).

²⁵ We know that Shackle sent his book (Shackle 1938 [1968]) to Keynes, and Keynes replied thanking him. Keynes' letter dated April 30, 1938, survives in the Shackle archive (and has been published in Littlechild 2000, 362-363) and shows that Keynes approved of the book, agreeing with a number of ideas, and writing in his reply "I quite agree with you that the next step is to try to 'build up a chain of situations growing one out of another representing a process in time.'" (Littlechild 2000, 362)

business cycle complete the picture of a reader firmly now attached to the theoretical framework that follows Keynes' *General Theory*.

The fact that his thought on uncertainty and the problems of knowledge and action was clearly following the Keynesian rather than the Hayekian camp²⁶ at the time can be discerned from the following noted on the margin of Lachmann's article on Uncertainty and Liquidity-Preference:

Forward-markets do not eliminate general uncertainty: they give foreknowledge if some (not all) details of the future a given person will be a gainer or a loser. E.g. if at 1st Jan. I buy something 6 months forward at 100, and at 1st July the spot price turns out to be 95, I have lost 5. They enable a person to limit his liabilities. 9:1:38. (marginal note on page 302 of Lachmann's (1938) Add. 7669, Box 17)

By that time Shackle seems to have lost all interest in the efforts of Hayek to elucidate his business cycle theory. Shackle's copy of Hayek's *Profits Interest and Investment*, published in 1939 survives in Liverpool (Sidney Jones Library, HB3711.H41), and it is interesting to note that it has no marginal annotations at all.²⁷ And thus Shackle's marginal gloss on Hayek's texts from the heights of 4,000 words in 1935 dwindles to zero by 1939.

V. The 1930s through historical narratives

Though there was no overt debate immediately after 1936 between 'Mr Keynes and the Austrians' in the sense of an explicit exchange on the relative merits of these two systems, there surely was a silent debate in the minds of many economists as they decided which body of doctrine to adopt. (Laidler 1999, 49)

Shackle's annotations give us the ability to use primary material to test, in a way, this statement by Laidler. It allows us to see what an informed reader at the time made of the various debates, and how his opinions crystallised, partly through his readings, in order to decide which framework to adopt in his later academic career. What the annotations reveal is that the Hayek-Keynes story from Shackle's angle does not have the edged tones noted by other contemporary participants (see Klausinger 2011). Instead, Shackle seems to be groping with the core ideas, and was not against arriving at a complex position that used arguments from both, and the annotations reveal this effort.²⁸

And yet, annotations, like all raw data sources answer the questions they are asked. That Hayek and Keynes and their theories played a central role in the theoretical debates of the 1930s is beyond question. But what is not beyond question is the narrative that brings them centre-stage, places all

²⁶ He did, however, make a very positive reference to Hayek's work on knowledge in (Shackle 1937a, 108 footnote 1) Presumably this is a reference to Hayek's (1937) article. We don't know when Shackle read the article during the 1930s as that volume of *Economica* is missing from the Shackle archive.

²⁷ The book appears completely unread, and in fact, pages 154-55, 158-9, 250-1 and 254-5 still remained uncut when I visited the library in July 2015. The only way we know this was owned by Shackle is because in the front inside cover there is a bookplate of Liverpool University noting that it is a gift to the library by him.

²⁸ An indication of using insights from academics from both camps can be seen in footnote one in (Shackle 1937a, 108). There Shackle thanks Hayek for his insights on his work on knowledge and its diffusion in the economy, Keynes on the evolution of the concepts of investment and income, and Keynes jointly with Kahn for their development of the multiplier.

other developments in the background and sets the stage firmly across this axis. The result may be spectacular but has limitations, as in this case, important readings by Shackle find no place in this narrative. This leads us to ask: What other questions can we ask? What other stories of the 1930s can we tell?

These are very difficult and multilayer questions that have no single answer, not only because there is no single story that captures all aspects of the theoretical developments of the 1930s, but also because there is no simple criteria on how to choose between them. Therefore, it is worth seeing this material from a second angle, and in this Hayek can help us not only as a protagonist, but also as a historian of the period. In a speech in 1963 he gave the following account:

The more I think about it, the more I become convinced that the crucial change of the middle 1930s was not the success of the particular theory contentions expounded in *The General Theory*. The success of this work was merely symptomatic of, or perhaps helped decisively, the displacement of what is called microeconomics by macroeconomics. It was a development for which the Marshallian tradition was more disposed than the Austrian or the Lausanne or the Jevonian or the American tradition (Hayek 1995, 60).

I think one can hardly suggest a more controversial thesis of the 1930s, than what Hayek attempts above.²⁹ More generally, the move from microeconomics to macroeconomics mostly due to *The General Theory*, has been noted by others as well, although not exactly in the terms employed by Hayek.

What do Shackle's readings tell us about this 'displacement' of microeconomic analysis by macroeconomic theory? Shackle's readings up to 1934, seem to focus on three broad fields of enquiry. One is the Austrian Theory of Capital. The other two could generally be grouped as: advances in microeconomic theory and monetary theory. It is interesting to note that his first dated reading of a complete article is Marshall's Time Analysis, by Opie on July 1931. In 1934 Shackle read a number of articles in the first *RES* issue, all of which would today be classified as microeconomics, and he does a detailed and heavily annotated reading of A Reconsideration of the Theory of Value. Part I by Hicks and Allen. In his annotations Shackle draws diagrams, discusses indifference curves and the developments relating to the elasticity of substitution. In fact, from Shackle's dated readings from 1934 his non-microeconomics readings are two articles by Hayek and Knight (Hayek 1934, Knight 1934) on capital and the business cycle, and one by Adarkar on Interest rate theory.³⁰

By contrast, 1935-6 was the period that Shackle was almost exclusively concerned with capital theory, with two notable exceptions: Two articles by Hicks, one on the theory of money and one on wages and interest. His readings on microeconomics are: A Mathematical Note on the Economics of Electricity Supply, by Stubbings; The Definition of Prime and Supplementary Costs by MacDougall;

²⁹ Admittedly Hayek's account is both open ended and somewhat unclear. I am not aware of Hayek developing this thesis more fully elsewhere. Moreover, the above quote continues with the following line "it is certainly more than a coincidence that *The General Theory* appeared only three years after the foundation of the Econometric Society - even Keynes had no particular sympathy with the members of that group" (Hayek 1995, 60). This seems to suggest that Hayek was conflating, to some degree, the Keynesian revolution with the rapid growth of econometric techniques that was taking place about the same time, and considering the latter as the central change during the 1930s. In the rest of this section I do not follow this line of argument and consider macroeconomic developments from the perspective of *The General Theory* and the Cambridge Keynesians working with Keynes as the central change.

³⁰ He may also have read Meade's *The Rate of Interest in a Progressive State* during this period. We know through Ford's biography (Ford 1994, 14) that he read it at least once towards the end of 1934, but as it has been lost we do not know Shackle's full reading history for this volume.

and The Place of Interest in the Theory of Production by Lange. And even among these, the last two articles have to do with developments in ‘macroeconomics’, as MacDougall elaborates on Keynes’ use of the terms prime and supplementary cost, and Lange explores how development in the theory of interest rates impacts on the theory of production.

By 1937, when Shackle completed his LSE Ph.D., Shackle’s readings are extensively on the new analytical framework of the *General Theory* and its related toolbox. Remarkably, from January 1937 until 1946, the only readings ‘on microeconomic theory’, in modern (circa 2017) sense of the word, relate to readings in oligopoly or monopolistic competition.³¹ On departures from perfect competition, Shackle not only read The Problem of Duopoly by Kahn, but also Chamberlain’s (1938 [1933]) and Triffin’s (1940) books on the subject. That we find Triffin (1940) is particularly interesting, as Triffin emphasises that “the new wine of monopolistic competition should not be poured into the old goatskins of particular equilibrium methodology” (Triffin 1940, 89). He thus departs from the Marshallian tradition that forms the basis of Robinson’s (1933) and Chamberlain’s (1938 [1933]) books. Furthermore, Triffin hints that these new microeconomic foundations when seen in a more general equilibrium context, may undermine the new Keynesian tools in macroeconomic analysis. Triffin writes:

All that may be involved is a question of degree; every firm competes with all the other firms in the economy, but with different degrees of closeness. Is anything gained by limiting the investigation to a group of close competitors, which we would call a group or industry? In an empirical, statistical study, yes; we can, in this way, reduce to a manageable size the research work involved, without any serious loss in precision or exhaustiveness. In the general statement of value theory, no; when competition is discussed in general abstract terms, we may just as well make the group (or industry) coextensive with the whole economic collectivity. (Triffin 1940, 88)

Shackle is anxious to keep the new concepts being developed in macroeconomics untainted by the difficulties of this ‘new’ microeconomic theory, especially in relation to general economic activity. On the margin of this paragraph by Triffin, Shackle writes:

There is, perhaps, one valid reason for postulating that the firms whose competitive interactions are being analysed form together only a small part of the economy: such a postulate excludes the possibility that changes in the outputs of the firms may change the aggregate effective demand of the economy as a whole. It seems necessary to make some assumptions which will preserve the aggregate effective demand as a constant in spite of changes in output by individual producers. The only definition needed for such a growth of firms is that it be only a small part of the economy. 30:XII:41 (marginal note on page 88 of Triffin’s (1940), Special Collections and Archives, Liverpool, Spec Shackle 24)

And while Shackle saves the new Keynesian macro from the implications of Triffin’s argument, he is not equally committed to defending the ‘old’ theory of value. He writes at the end of a long note that summarises the book’s argument; which he finds to be that for determinate general equilibrium to exist you need either to have ‘homogeneous competition throughout’ or everywhere ‘pure

³¹ He did also read articles that relate to individual behaviour, like Irrationality in Consumers' Demand, by Reddaway, and The Concept of Hoarding by Robinson, as well as articles on uncertainty and risk for example Steindl’s On Risk. All of these reading, however, are firmly connected with the Keynesian revolution and can be seen more as extensions of the research project brought forth by Keynes’ *General Theory*, and related to Shackle’s own work on Expectations, which would come together in his (1949) book on *Expectations in Economics*

monopoly'; the following comment: "This final inference must be that determinate general equilibrium is of little practical relevance." (undated comment, loose leaf note back cover of Triffin's (1940), Special Collections and Archives, Liverpool, Spec Shackle 24) And thus Shackle by the mid-1940s had completely discarded the practical relevance of general equilibrium analysis, while retaining an eclectic use of the macroeconomic theoretical tools that emanated from the Marshallian tradition.

VI. Afterword

The last two sections are examples of how this type of material can be used when building our narratives for a history of economic ideas in the 1930s. What they share in common is the dramatic shift in 1935-6 when Shackle became firmly attached to the new theory of Keynes and the Cambridge Keynesians. The marginal annotations help us understand both the periods that preceded and followed this change in the following way. In the early 1930s Shackle defended, refined and synthesized ideas from the various academic contributions while being committed to the overall theoretical structure of neoclassical value theory and particularly the developments in Hayek's work on business cycles and in neoclassical microeconomics. His visit to Cambridge in October 1935 produced a dramatic shift in what he read, showing that almost overnight he became attached to the new theoretical work emanating from Cambridge. It was the very creation of an alternative that was coherent and convincing enough as a system of analysis that drove this change rather than the discovery of a fatal contradiction in Austrian capital theory. In fact, when he was convinced of the overall validity of Keynes' new approach, he defended it in his marginal annotations against perceived intellectual attacks of theoretical shortcomings, as he had done before for Hayek's theory in the annotations that date prior to 1935. And the marginal annotations are useful not only when they are there but also when they are not. Thus after 1935-6 Shackle did not return to Hayek's articles that he had read with such patience before, nor did he read Hayek's new contributions in business cycle theory. Nor did he return again in the 1930s and early 1940s to the Hicks and Allen (1934) article. Finally, revealing is also how this new framework of analysis influenced him when reading other texts he had read before, as evidenced by his annotations on Clark (1934). His 1938 readings of a book he had first read in January 1935, show Shackle now utilising a Keynesian framework and the 'ex ante'/'ex post' dichotomy. Shackle writes next to the following passage in page 120 of Clark's (1934) *Strategic Factors on Business Cycles*:

Any class of purchases made on this sort of credit is one in which it is possible for current purchases to move more or less independently of the volume of current income derived from past acts of production, and we have seen that durable goods are by their nature predisposed to just such movements. Such movements have a peculiar power to initiate changes in *the rate of production*. This they could not do if purchases must always equal income; income in turn being made up of the financial proceeds of *past acts of production*. (Italics in original, Clark, 1934, 120)

The author seems to be confused as to what he means by income. If I can get credit from my tailor, I am able to buy a suit which I should otherwise have been prevented from buying not because of my past income but because of my present lack of cash. If my current income 'ex ante' is sufficient for me to feel that I can afford the suit, I can buy it or not according as I

have cash or can get credit, or not. 1:5:38 (marginalia on page 120 of Clark (1934), Sidney Jones Library, HB3711.C59.)

Thus, the analysis of Shackle's marginal annotations during this episode puts in sharp relief the effect that Keynesian theory had in the mid-1930s in what young economists read, and on how they reacted to what they read in new and old texts.

Furthermore, the possible stories that can be examined and enriched by this material are not exhausted by the last two sections, and include histories of the development of capital theory or even the increasing interest in new econometrics techniques and the use of mathematics in economics.³² In the above examined narratives Shackle was primarily seen and utilised as a reader, however, he was also an active participant in the debates, and other narratives that are more closely related to his pioneering contributions in expectations, for example, would utilise both his reading notes and his contemporary writings.

This brings me to the two questions that this type of material brings forth, and merit further investigation. These are: 1) How far can marginal annotations take us in writing a more general (instead of a personal) history of this period's evolution of ideas? And related to this: How typical is this reader, and how can we move from this reader to the mass of silent readers? 2) What is the relation of the text to its marginal gloss in economic theory? I discuss these in turn.

Section III examined in detail Shackle's reading habits. It is clear that his marginal annotation typology is unique, and therefore, by association his approach to the text, at least from the viewpoint of the marginal trail it leaves behind, is atypical. At one extreme it could be argued that the marginal gloss that Shackle uses to hold these texts together tells us nothing more than his own evolution of thought. A uniquely personal experience of a peculiar man working to develop his own thought patterns and articulation. This argument is further strengthened by noting Shackle's very personal approach to language. He is known for creating neologisms, and generally for employing an idiomatic language in his published writings.³³ At the other extreme we may take these notes to be, in some way, an impression of what academic readers thought. It could be argued that Shackle was closely following the fashions of the time, especially in the beginning of his career when he was a Ph.D. student, reading with care a number of major economic theorists writing during this period, and trying to understand and synthesize their viewpoint. By extension this material may add to our understanding on how a generation of LSE Ph.D. student's knowledge in economic theory evolved and what ideas excited them and when. The answer to how far these annotations can take us in one or the other of these directions remains hidden simply because there is no other extensive material to compare this reader's experience to. Ideally, a database of annotations across a number of contemporary readers would give us the ability to see where they converged and where they diverged in their readings. It would thus give us an idea of what the 'average' reader thought, and would help us chart in detail the evolution and dissemination of new ideas in economics. Of course,

³² Shackle's reading can say something about these last two topics- which are interlinked. Thus, it is not only that he worked extensively on algebra in the late 1930s and early 1940s, even writing that the topic fascinates him and adding "One day I shall strike out from it some new ideas for my own subject" (see appendix B for full quote), but also by the fact that he read Tinbergen's work (Tinbergen 1937, 1939) on the new type of econometric analysis for business cycle research. Interestingly he read on 28/5/43 on the same day, parts of (Tinbergen 1939) and the exchange in the *Economic Journal* between Tinbergen and Keynes, which voiced Keynes' concerns on the limits of this type of testing. He returned to Tinbergen (1939) for a more in-depth reading in August-September of 1945, only days after the end of WWII.

³³ I would like to thank Professor Roger Backhouse and the participants of the 2015 ESHET session for making this point.

this ideal situation can never be reached, not only because this type of material has not survived from other readers, but also because too few readers lay their reading process as open as Shackle does. How close the concerns of this reader are to the grand mass of more silent readers is not only unknown, but an uncharted field of study, as HET scholars very rarely deal with marginalia and discuss issues relating to their appropriate use in historiographical research. This paper is therefore a speculative piece aiming to ask HET scholars to use, but also discuss the appropriate use, of this type of primary material. Related to these questions is the issue of where do marginal annotations fit within the mosaic of primary material (letters, diaries, autobiographies, reminiscences, interviews, etc.) that are available in archives and libraries. It is in association with these other primary sources that an answer on their appropriate use in historical research may be synthesised. First, reading notes can be viewed simply as part of this material, even though marginalia can, on occasion, be more esoteric and personal. Second, it can be argued that in the same way that a person's correspondence, diary, etc. carry with them the stamp of space and time, so it is with a person's marginal annotations. These reading notes inform us about the period simply because they are contemporary thoughts and reactions, and therefore inescapably products of their time.

It is in this frame of mind that we can discuss the second question on the relation between the text and its glossy transformation. Are these annotations a genuine attempt to interact and develop the ideas of the text or is it simply that "in a glossy margin, Narcissus saw his face" (Lipking 1977, 640)? The distinction between marginalia and marginal gloss was explored in the introduction, and forms a central and useful analytical exploit that unites the different sections of this paper. A core aspect of this distinction is that marginalia are a more esoteric and personal approach to the text, occasionally even cryptic, full of the reader's individuality. In the distance that separates the reader from the text they stand decidedly next to the reader, and they tell us more about him than they do about the text. In contradistinction marginal gloss fills the void between the text and the 'average' or anonymous reader. Its objective is to explain and elucidate, to make clearer the message of the text. In economics this type of exercise is central to the formation, codification, standardization and dissemination of abstract theorizing. Ideas that come from the text of one author gain a life of their own as the community of researchers and practitioners evolve and standardize them through further research articles, textbooks, and policy work. Marginal annotations may reveal part of this process, the first interaction of a reader with a new text and its pioneering insights. A reader's attempt to understand means re-articulating and appropriating these ideas, and therefore disembodiment from the author and the text that they originally came from. This is the first step in this intricate process from inception to standardization and ecumenical use within the profession.³⁴ It is for this reason that Shackle's marginal annotations may be seen as more than a mass of marginalia- odd musings that nest at the outer rims of pages- and more as the first step of what happened to some of the pioneering ideas of the 1930s, as they made (or failed to make) their uncertain journey to acceptance and common use.

³⁴ Lipking writes that "the gloss outlasts the text" (Lipking 1977, 651). In many ways this can ring true in economics, where the standardization of an abstract idea may be very different to its original loose and speculative articulation embedded in a text.

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Special Collections and Archives, University of Liverpool Library, Liverpool University

Appendix A:

<Figure 1>

Figures caption:

Figure 1:

Shackle's marginal annotations on page 217 of the *Economic Journal*, 1934, vol. 44, No. 174. (Article by F.A. Hayek: "On the Relationship between Investment and Output").

Appendix B

[Handwritten note pasted in the last page of Introduction to Algebraic Theories by A. Adrian Albert. The book is in Add. 7669 Box 16 of the Shackle archive, Cambridge University Library]

I discovered the existence of this book on the 9th January 1943, by finding it on Heffer's shelves, and immediately bought it. The discovery was a great thrill. I had tried to read Albert's *Modern Higher Algebra*, but had been put off by the use in Chapters 1 and 2 of that book (which lead with the subject-matter of Chapter 6 of this book) of German gothic capitals which I could neither name to myself nor distinguish between, and which therefore made it impossible to follow an exacting argument. I was convinced that Albert was the finest exponent of this subject, and here was a compact book by him presenting in full rigor the core of the subject, yet within my powers. I began to read the book on 10th January 1943, and by 26 April 1943 had read the whole book as far as the end of Section 2 Ch. 5, but without any serious attempt to do the exercises. In the summer of 1944 (June-July) I read Ch. 5 from its beginning to about the end of Section 4. On July 3rd, 1945, I began a real attempt to master the book. At every point where I discovered the solution of some difficulty, or felt that I could gain by expressing an argument in my own words, I interleaved the book. I did large parts of the exercises, and was deeply impressed with the absolute necessity of actually handling concrete examples in order to master and really penetrate the arguments. An example performed throws a brilliant spotlight on the real meaning and working of matrix algebra. By the 9th January

1946 I had worked through the book thus as far as the end of Section 4 of Chapter 5. I begin to feel that I know what the subject is about, and how it works. I propose now, concurrently with finishing the parts of the book not yet read, to turn to Birkhoff and Maclane: A survey of Modern Algebra, much of which I have already read once, and work through it in the same way as I have this. I am fascinated by this subject. One day I shall strike out from it some new ideas for my own subject.

G.L.S.S.

10:1:46