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Has the Barter Theory of the Origins of Money Been Rejected?

Georgy Ganev

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Dr. Georgy Ganev

IWM*, SUFEBA, CLS

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Abstract

No, the original barter theory of the origins of money ("the barter story" for short) has not been rejected. What has been rejected is a narrowly specific, and apparently parentless, version of the barter story based on the standard neoclassical synthesis modelling assumptions of *homo œconomicus* and fully-fledged market economies. As in all other myths, the myth of the rejection of the barter story contains a grain of truth, namely, that the actually lived human communities are much more complex and nuanced than assumed by the standard neoclassical synthesis economics rendition of the story. These grains of truth, as valuable and helpful as they can be for the improvement of economics, cannot change the conclusion that the original barter story remains standing.

Keywords: barter; money; origins of money

JEL categories: A12; B15; B29; E49; N10

I. Introduction

The economists' theory of the origins of money is that it emerged from barter. For short, this theory will be called "the barter story". For some modern anthropologists this story is about as factually grounded as the story that Romulus and Remus were nursed and cared for by a she-wolf. Anthropologists did not arrive at this opinion lightly and their rejection of the barter story follows a full century of increasing doubts about its theoretical and historical relevancy.

As of the late 19th century, the barter story was the undisputed default tale of how money came to be.[1] But throughout the 20th century, especially with the accumulation of ethnographic and historical knowledge, thinking about the importance of barter shifted until, towards the end of the century, at least one academic publication forcefully claimed that any role of barter in the origins of money has been rejected. By the early 21st century it seems that outside of economics there is a widely shared opinion (Graeber 2011 coming from anthropology, Martin 2014 coming from finance, Dodd 2014 coming from sociology) that the barter story is false. In this view, most forcefully stated in Graeber (2011, chapter 2), the barter theory of the origins of money has already been scientifically and definitively rejected, this rejection has occurred as early as the mid-1980s, and this result should have long ago been recognized by economists, incorporated in their research and reflected in their textbooks.

Yet established economics texts, and especially textbooks,[2] seem to stubbornly continue to step on the barter story as the default tale of the origins of money. The refusal of economists to even acknowledge its rejection by anthropological research is interpreted by some anthropologists as a clear demonstration of the inadequacy of the economics discourse with respect to actual human and social reality. For at least some authors this interpretation has been followed by the insight that modern economics cannot give up the barter story, regardless of other social sciences or of

[1] Towards the end of the 19th century its monopolistic position as an explanation of money origins was challenged by the state theory of the origin of money. This alternative view was authored by Georg Knap (1924, first published in German in 1905), further expounded by Mitchell-Innes (Wray, ed. 2004), and continued today mostly in the writings of Randall Wray (2015) and the representatives of Modern Monetary Theory. The relation between the state and the barter theories of the origins of money is very important but goes beyond the scope of the present exposition.

[2] Graeber (2011:22-23) explicitly lists four such textbooks and rightfully points that examples can be continued "endlessly".

historical reality, because it is central to its whole theoretical structure. This insight has provided ammunition for attacks against today's body of economics as a whole, including its major premises, models, and claims to accumulated knowledge about human societies (Graeber 2019). The most extreme version of these attacks postulates that today's economic theory is nothing but an ideological propaganda tool useful to powerful elites in suppressing their peoples to the detriment of humanity and its wellbeing.[3]

Given this escalation of claims about economics in general, and the fact that they stem from a rejection of the economists' barter story, the purpose of the following exposition is to take a careful look at their empirical and theoretical justification. This will be approached in the following manner. Section II will briefly outline the barter story, with an emphasis on the way it has been presented by the authors who claim its rejection. In Section III the evolution of thinking about the relevance of the barter story leading from its unconditional acceptance towards its rejection will be traced by following the use of a very specific phrase relating to it in the relevant literature over a period of more than a century. Then in Section IV the theoretical and empirical content of this rejection will be stated, using as much as possible the wording and the arguments of the researchers explicitly claiming the rejection. This will lead to the central Section V, where these arguments, including specific sources and references, will be critically examined to arrive at an inference as to whether rejection has indeed taken place. Finally, the meaning of the arguments for the rejection of the barter story, and more generally for criticism of mainstream economics, for the further development of knowledge about the economy will be discussed with the goal to see if, and how, paying attention to these criticisms may help improve economics.

II. The barter story

The barter story about the origin of money is enticingly simple and consists of two pillars. First, once upon a time there was barter among people. Second, barter is inconvenient, cumbersome, and constraining. The story assumes that at some point human groups started producing surpluses of various commodities, which naturally and gradually began to be exchanged first among closely connected groups and later among more distant ones. But such exchanges of

[3] Ibid. The beginnings of these suspicions of Graeber's are clearly visible already in Graeber (2011, chapter 2, especially pp. 24-28).

concrete commodities for other concrete commodities were highly inconvenient due to at least several factors. One is the well-known requirement for a double coincidence of wants, which severely limits possible exchange in at least two dimensions: what commodities may get exchanged and which human groups may engage in exchange. Another inconvenience is the problem of divisibility of most commodities: even if the double coincidence of wants is present, non-divisibility may block the exchange due to impossibility to execute it in quantities agreeable to all parties involved. A third inconvenience is the timing: barter requires a spot exchange of the commodities transacted, but the nature of the production processes may be such that they become available at different moments in time, which may also prevent exchange unless some mechanism around it can be developed.[4] The list of inconveniences related to barter can be extended further, but these suffice to demonstrate the intuition behind the barter story.

The intuition is that indirect exchange serviced by money overcomes all these inconveniences to a very large degree. Thus, monetary exchange decreases the costs of transacting substantially and, which may be considered as more important in the long run, significantly enlarges the space of possible transactions in terms of commodities, distances, people involved, timing of transactions. It is this second aspect of monetary exchange which, according to the barter story, leads to an increase in the extent of the market that is so operationally important for the economists' tale about how the wealth of nations comes about.

The earliest rendition of the barter story is as old as Aristotle (Politics: 1257a).[5] There, over a page and a half (Aristotle 1959:41-43), Aristotle gives a step-by-step rendition of how, according to him, money came to be. Initially, "members of primitive households" consumed what they produced and within the households no exchange took place. But when the group became large enough to split into several households, they would give each other their excess (above their own consumption needs) quantities of goods in which they produced such excess. These mutual givings of the excess shares of goods among the households necessarily took the form of barter

[4] The timing problems of direct spot exchange are not relevant not only for the barter story of money, because they equally well serve the debt, or credit, theory of the origins of money.
[5] Aristotle (1959). There is a specific reason to use this precise edition, besides the high reputation of this particular translation. It provides the text in both Greek and English, which will be relevant later in this exposition (Section Vd below). The edition is also available online at https://archive.org/details/L264AristotleXXIPolitics/mode/2up .

("such tribes do not go beyond exchanging actual commodities for actual commodities, for example giving and taking wine for corn…"). According to Aristotle's terminology, such exchanges "are not contrary to nature" and are not a branch of what he calls "wealth-getting", but it was precisely from them that what he deems the contrary to nature branch of wealth-getting "art of business" arose with time. And in this process, "the employment of money necessarily came to be devised". It happened, according to Aristotle, when "for the purpose of barter men made a mutual compact to give and accept some substance" which was both "a useful commodity" and "easy to handle".

In short, Aristotle is telling a straight-forward story. Originally there was no exchange and households consumed what they produced. Then exchange between households and tribes emerged, in which excesses of goods produced were bartered. Then barter, being inconvenient and difficult, was necessarily supplanted by a compact among trading agents to "give and accept some substance" which was much more convenient and easier. Thus, money came to be. This is the barter story of the origins of money.

A similar, if in more detail and possibly much more influential with economists, story is told by Adam Smith.[6] After having introduced the division of labor as requiring exchange and leading to specialization, Smith notes that specialization necessarily results in the production of goods for the purpose of exchanging at least some of them for other goods. The ensuing necessary exchanges, however, are "very much clogged and embarrassed"[7] if they must be executed through barter. Reasonable exchanging agents would therefore naturally move towards relying on the most current and marketable commodities as means for payment in exchange: "every prudent man in every period of society, after the first establishment of the division of labour, must naturally have endeavoured to manage his affairs in such a manner, as to have at all times by him, besides the peculiar produce of his own industry, a certain quantity of some one commodity or other, such as he imagined few people would be likely to refuse in exchange for the produce of their industry".[8] In the next paragraph Smith describes eight concrete examples of such commodities. He then goes on to explain why and how metals proved with time to be the

[6] Smith (1975[1776]:Bk1:Ch4:para.1-9).
[7] Ibid.:para.2.
[8] Ibid.

most convenient, later being stamped for quality and finally minted into standard weights to save on the costs of constantly having to assay and weigh them.

In short, differing only in nuances and emphases, Adam Smith tells essentially an identical story of the origin of money from barter to the one told two millennia earlier by Aristotle.

For the purposes of the further exposition below, possibly the strongest, leaving no place for doubt, statement of the barter story is to be found in the preface to Vincent Barclay Head's *Historia Numorum: A Manual of Greek Numismatics*:

> "For many centuries before the invention of coined money there can be no doubt whatever that goods were bought and sold by barter pure and simple, and that values were estimated among pastoral peoples in the produce of the land, and more particularly in oxen and sheep."[9]

III. "Pure and simple": a century-long turn of a phrase

Head's claim quoted above was published in the first edition of *Historia Numorum* in 1887. It leaves no doubt that according to the author's opinion it is an established historical fact that before money goods were exchanged "by barter pure and simple". This seems to have been the dominant opinion towards the end of the 19th century, despite the emerging efforts of Georg Knapp (1924[1905]) to develop his state, or chartalist, theory of the origins of money in approximately the same period.

As a confirmation of the prevalence of the opinion that it was an already established historical fact that money was preceded by barter, one of the first recognized systematizers of the quickly increasing "heterogeneous mass of material"[10] on what came to be called "primitive money"[11], Sir Richard Carnac Temple started off his attempt with the same claim: "Barter is exchange of possessions pure and simple. I exchange today my grain for your fruit and tomorrow my adze for your knife; that is barter". (Temple 1899:99), followed within less than a page by: "Barter, pure and simple, does not require much explanation, and I shall confine myself now to one plain

[9] Head (1887:XXVII).
[10] Quiggin (1949:1)
[11] The term is present in the very titles of the two most detailed surveys: Quiggin (1949) and Einzig (1966).

illustration thereof from an old book[12]…" (Temple 1899:100). Temple's language in his chronological systematization of exchange systems as going from barter through currency to money leaves little doubt that according to him the existence of barter before money is self-evident and requires no specific proof or demonstration.

Within two decades, however, the thinking that before money there was barter was already changing, and accidentally or not probably the first revision of this thinking involved the very phrase "pure and simple". The revision was already visible in the work of Bronislaw Malinowski, whose extended experience with the Trobriands in the Pacific led him to conclude that describing all non-monetary or pre-monetary exchanges in human societies as just barter may be too simplistic (Malinowski 1978[1922]:135): "I have on purpose spoken of forms of exchange, of gifts and counter-gifts, rather than of barter and trade, because, although there exist forms of barter pure and simple, there are so many transitions and gradations between that and simple gift, that it is impossible to draw any fixed line between trade on the one hand, and exchange of gifts on the other."

In this short passage, as well as in his work in general, Malinowski does two things. First, he emphasizes the notion that there exist different types, or forms, of non-monetary exchange, of which barter is only one, gifts and counter-gifts being at least one other. Second, having done this, he still explicitly allows for the existence within the types of societies he has studied of "barter pure and simple".

Of course, Malinowski is not the only representative of this revision. Approximately simultaneously with him, Marcel Mauss (2015[1925]) explicitly devoted a detailed and broad-based essay about the importance of the gift exchange, and of reciprocity, in what may be termed "archaic" societies. As opposed to Malinowski, who tends to see gift exchange as one of various forms of exchange, Mauss seems more inclined to claim that gift exchange and reciprocity represent a form of exchange more fundamental to human societies than other forms.

The two most comprehensive, deep (down to minute details) and broad (with a truly global scope) surveys of all accumulated knowledge about archaic forms of money were both published in 1949. They were Alison Hingston Quiggin's *A survey of primitive money*, and the first edition

[12] The old book was published in 1669, the concrete story cited is from 1636: Olearius (1669:55).

of Paul Einzig's *Primitive money in its ethnological, historical and economic aspects*.[13] The fact that the two are published in the same year very soon after the end of World War 2 is not entirely a coincidence. As is made explicit in Einzig (1948), anthropologists universally observed dramatic effects of the War on the societies they were studying. Especially with respect to their specific types of money there was a major concern that the practices will quickly disappear, replaced by the forced spread of the modern Western variety of money.

There are numerous common threads between the two surveys, but they differ on the major point of interest for the investigation presented here, namely in their attitudes toward the link between barter and the origin of money. Quiggin (1949:1) starts from the very first page with a reference to Temple's (1899) already cited work, to whose presentation in the Anthropological institute in 1899 Quiggin herself was personally present. Thus, she seems to fall in the tradition of opinion placing the origin of money in barter.

Quite differently, as early as the preface to the first edition, Einzig (1966:XVI) clearly and openly states: "In particular I realized the need for laying stress on the non-commercial origin of money and on the possibility of the existence of credit before money, of money before barter, and of barter before private property or division of labour in the generally accepted sense of these terms."

This statement by Einzig constitutes an important revision of the previously dominant view about the chronological precedence of barter to other types of exchange, especially monetary. It is probably the first such strong formulation of this view, and yet it still refers to this revised thinking about the issue as just a possibility, as something to be considered and tested in the future, rather than as a concluded matter.

By 1981, however, in the exposition on the phenomenon of money, Thomas Crump (1981:34) seems prepared to make a much more decisive and stronger claim problematizing barter as an historical fact, and therefore as being incapable of serving as the origin of money. He states that the emergence of money as a medium of exchange theoretically requires "an already established system of exchange", and then proceeds to make the empirical observation that "actual examples

[13] The present text uses the second, revised and expanded, edition of Einzig's survey, published in 1966.

are rare", that for ancient societies such systems "were largely unknown", and that "[e]ven in more recent times, such autonomous systems do not commonly occur."

Here Crump extends the claim that the barter story may be problematic from the area of contemporary human societies studied by ethnographers and anthropologists to "ancient societies" based on the work of Mauss. He also considerably increases the strength of the claim. It is, according to him in 1981 and in contrast to Einzig in 1949/1966, not only just possible that maybe the barter story has competition in other plausible explanations of the origins of money, such as credit or gift-exchange or other forms of reciprocity, but it is highly likely that a barter-based society capable of having originated money from barter is not easy to identify in actual history. It is not only that barter is just one among many possible places of origin of money, but it is a highly doubtful one.

By the time of the publication of Crump's work on the phenomenon of money, the process of revision of the barter story was ready to reach its end. The role of the one to state it most categorically and lucidly was taken by Caroline Humphrey (1985:48), who 98 years after the above statement by Head began an academic publication with the following two statements:

> "The mainstream economists' view that barter should be seen as a 'natural' phenomenon of human nature and as the origin of money is rejected… No example of a barter economy, pure and simple, has ever been described, let alone the emergence from it of money; all available ethnography suggests that there never has been such a thing."

The first sentence in this quote is the opening sentence of the abstract. The second is the fourth sentence of the main text. The first is a direct and complete rejection of Head's claim quoted at the end of Section II above. The second is a claim that the barter story has nothing to do with human reality. The rest of Humphrey's publication is an argument that, if anything, it is money that precedes barter,[14] and barter is a consequence of a deterioration of a monetary system, rather than the opposite.

To complete the cycle, Humphrey uses the exact same words, "pure and simple", employed by Head. Given the rich history of the phrase demonstrated here, it is highly improbable that this is just a coincidence. It is much more probable that by using it, Humphrey was rhetorically

[14] Compare with Einzig's "money before barter" above.

signifying the completion of the utter rejection of possibly the most lucid and condensed statement of the original barter story. In almost exactly a century, the barter story traveled the road from “there can be no doubt whatever” to “is rejected”.

IV. The case against the barter story

All the evidence about the evolution of anthropological thought on the topic of money and its origin, some of which was presented in Section III, indicates that Humphrey’s pointed rejection of the barter story is not an incidental one-time finding. Of course, her work and assertions were preceded by others, most notably Karl Polanyi (1944) and his disciple George Dalton (1982). The overarching idea, which can be traced through all the authors discussed here,[15] is that the barter story used by the economists implies the presence and functioning of a market-based economy populated by rational optimizing economic agents. And that at the time money may have emerged, no such market-based economies existed.

It was Polanyi who first elucidated and promoted the claim that markets were insignificant for the life of humans until about the nineteenth century (Polanyi 1944:43):

> “… previously to our time no economy ever existed that, even in principle, was controlled by markets… Though the institution of the market was fairly common since the later Stone Age, its role was no more than incidental to economic life.”

This opinion is seconded by Dalton (1982:185):

> “Barter, in the strict sense of moneyless market exchange, has never been a quantitatively important or dominant model of transaction in any past or present economic system about which we have hard information”.

In his specific theoretical framework on the phenomenon of money, Crump (1981) builds a formal model of spheres of payment or exchange[16] and claims that money is most likely to originate in such spheres but that for such systems “actual examples are rare”[17] to observe historically or anthropologically.

[15] Polanyi (1944), Dalton (1982), Humphrey (1985) based on Crump (1981), Graeber (2011), Martin (2014) among others.
[16] Crump (1981:55-60)
[17] Crump (1981:54), more on this below.

In the decades since, it seems that, at least in some streams of anthropology, this rejection has been accepted as a result established beyond reasonable doubt. Most forcefully the conviction that the rejection of the barter story is no longer to be questioned can be found in Graeber (2011:29), referring explicitly to Humphrey:

> "The definitive anthropological work on barter, by Caroline Humphrey, of Cambridge, could not be more definitive in its conclusions: "No example of a barter economy, pure and simple, has ever been described…""

Most broadly, pointing it as a place of established consensus, the claim that the barter story has been rejected is made by Felix Martin, in a section of Chapter 1 provocatively titled "Stone age economics?" (Martin 2014:12):

> "By the beginning of the twenty-first century, a rare academic consensus had been reached amongst those with an interest in empirical evidence that the conventional idea that money emerged from barter was false."

Besides the implied definitiveness, Graeber's exposition will be used exclusively here as the ultimate statement of the case for the rejection of the barter story for three other reasons. First, it contains a very clear statement of the arguments. Second, it is very comprehensive in its reference to a body of anthropological work on the matter. Third, its lucid formulation leaves little space for misunderstanding and doubtful interpretations.

The anthropologists' rejection of the barter story rests on two pillars: one theoretical and one empirical. The theoretical one is that the barter story requires a human being for whom there exists "a division between different spheres of human behavior" so that economists may claim that in exchanging goods humans behave in a way which has "nothing to do with war, passion, adventure, mystery, sex, or death." [18] It is a human being dominated by a single trait: "the propensity to truck, barter, and exchange one thing for another"[19], from which "[e]conomists like Karl Menger and Stanley Jevons…, most of all by adding mathematical equations"[20] later refined the story of how in a society of such "economic men" money may have emerged from barter. But, at the level of theorizing about the human beings and their society, no division of "different spheres of human behavior" can be theoretically defended, "economic men" are a construct

[18] Graeber (2011:33).
[19] Smith (1975[1776]:Bk1:Ch4:para.1).
[20] Graeber (2011:28).

having no theoretical relation to actual reality. And since no such *homo œconomicus*[21] exists or ever existed in real life, the barter story is theoretically untenable.

The empirical pillar of the case against barter has already been mentioned: there is no evidence of a human society living in a barter economy anywhere on Earth, for any period of the human past: “The problem is there's no evidence that it ever happened, and an enormous amount of evidence suggesting that it did not.”[22] And since, the rejection of the barter story asserts, a barter economy has never existed, it is not possible for money to have emerged from barter. In short, the barter story is also historically untenable.

So, according to the anthropologists’ rejection, the barter story has no basis in neither theory, nor history. It must be discarded as an invalid hypothesis about the origins of money. Other stories about the origins of money need to be considered.

V. Has the barter story been in fact rejected?

The present section aims at examining in some detail both pillars of the rejection of the barter story by anthropologists: the absence of historical and anthropological evidence and the theoretical reliance on a model of a barter system populated exclusively by *homo œconomicus*.

Va. The absence of evidence

Graeber’s (2011:29) rejection of the existence of evidence for the presence of barter in human societies refers to Humphrey’s (1985) publication. Humphrey’s study is evaluated by Graeber as “the definitive anthropological work on barter”, and it is also assessed as being “definitive in its conclusions” with respect to the rejection of the barter story.

This raises the question about what a given anthropological work on barter would have to include to be labeled as “the definitive.” Establishing a standard here is not problematic from an academic standpoint. It would require a systematic review of all available observations of prehistoric or contemporary non-monetary, or at least preserving some non-monetary modes of exchange, societies. This would include every single instance covered by at least Quiggin (1949) and Einzig (1966), plus any other described in the literature, especially in archaeology. The

[21] Persky (1995).
[22] Graeber (2011:28).

surveys of Quiggin and Einzig, combined with archaeological descriptions of pre-historic exchange,[23] would constitute a database of certainly more than a thousand sufficiently well described observations. It would also need to define precisely what "absence of barter" entails in terms of observable facts. And then it would require a thorough analysis, for every single case, of whether the respective observation indicates an absence or allows for some presence of barter.

This is not what Humphrey's study does. Its whole substance consists of a very detailed study of a single contemporary population: the Lhomi in the Himalayas. Its only research agenda is to present a description of a single case of a previously monetized society which, due to a variety of circumstances, demonetized and resorted to barter. The actual claim by Humphrey is not that the case of the Lhomi indicates the non-existence of barter in history, but rather that even if it is assumed that barter did not exist before money, the obvious case of a society actually practicing barter in the 20th century such as the Lhomi can still be explained as a consequence of exogenously imposed demonetization with which the respective people have had to cope. The rejection of barter as a system preceding money in Humphrey (1985) is, in fact, not even a conclusion of her work. It is a starting assumption underlying her research project, which is asking whether it is possible to explain the existence of a bartering human society in the 20th century even if it is assumed that barter does not precede money and is not the default exchange mode among humans.

No criterion exists under which this publication by Humphrey constitutes "the definitive anthropological work on barter", and it contains no conclusions whatsoever, definitive or not, on the question of whether barter historically may have preceded money or not. Thus, the assessment by Graeber about the relevance of this work for the issue of the relation between barter and money is completely groundless.

Going further, Humphrey (1985:49) does justify her assumption, rather than conclusion, that barter did not precede money with the following statement: "…we know from the accumulated evidence of ethnography that barter was indeed very rare as a system dominating primitive economies.[1]" The reference is to a single source: Crump (1981:54). But before going to an evaluation of this source, an important nuance needs to be emphasized. On the first page of her

[23] The literature is vast. Just as a starting point, the two volumes edited by Earle and Ericson (1977, 1982) with the numerous references therein can be recommended.

study Humphrey states: “no example of a barter economy, pure and simple, has ever been described… all available ethnography suggests there has never been such a thing”. Less than a page later, when she actually refers to published academic research as a support for her claim, the phrase is very different: from “no example… ever” and “there has never been” it becomes “barter was indeed very rare as a system dominating primitive economies”. The difference between “never” and “very rare” is not quantitative, but qualitative. “Very rare” implies the possibility of existence, while “never” denies it. For some reason Graeber choses to ignore this quite telling change of phrasing in what is, according to him, the “definitive” work on the anthropology of barter.

But the problems with the claim that evidence for the existence of barter is absent become even more significant if Crump’s actual statements are studied. What follows is a somewhat lengthy quote (Crump, 1981:54), but due to its importance in the further analysis below, it is given in full:

> “None the less, if one is to see money emerging as a medium of exchange, one would expect to find this process taking place in an already established system of barter. The fact is, however, that although such systems are easy to conceive of, actual examples are rare (Nicolas, 1970, p. 113). In the ancient societies where one would expect to find such systems as providing the setting for the emergence of money, they were largely unknown (Mauss, 1968, p. 199). Even in more recent times, such autonomous and independent systems do not commonly occur. In all the literature concerning traditional societies, one finds perhaps three areas which might have provided such a setting…”[24]

The content of this quote is important in terms of both the empirical evidence about the existence of barter, and about the theory on the link between barter and money’s origin.

In terms of evidence, Crump confirms that the empirical claim is not that an “established system of barter” has never existed, but rather that examples of such systems are rare. Inasmuch as such systems have indeed been empirically observed, albeit very rare, this means that there exists actual empirical evidence directly contradicting the claim that a “barter economy” has never been observed. This is further corroborated by Crump’s specific use of qualifiers: such systems

[24] The reference to Nicolas (1970) is to work on the circulation of goods and monetary exchange, the reference to Mauss is with respect to a 1968 edition in French of his essay *The Gift*, quoted above in Section III.

are “largely unknown” rather than simply “never known”, and recently they do “not commonly occur” rather than “do not occur”. Finally, confirming the actual existence of evidence for such barter systems, Crump concretely names three such cases (pre-colonial Mexico, the Congo basin, and the northern coast of New Guinea) which might be considered as valid empirical observations.[25] The studies of Crump (1981) and Melitz (1974, esp. 127-148), which do not claim to have formally considered all known cases of pre-historic or pre-modern economies in a systematic manner, provide at least four different concrete examples in four very different geographical zones of the world. Thus, the assertion by Humphreys and Graeber that no such economies have ever been observed and described is contradicted by the fact that they have.

Vb. Theoretical issues: “barter economy”, expectations, *homo œconomicus*.

Theoretically, Crump’s statement leads to a very specific question: why is there a need of “already established system of barter” for one to expect money to emerge, especially in the context of the barter story? Crump’s work examines the phenomenon of money in a very formal manner and introduces (Crump 1981:8) the notion of “sphere of payment”, linking eventually the probability of money emerging to the size of the payment sphere. Within this framework, it is legitimate to conclude that money is more likely to emerge from a society with a relatively large system of barter, than in a society where such a sphere is relatively small or even marginal.

This is quite so within Crump’s adopted theoretical framework. Something more can even be granted here. Crump’s formal mathematical treatment of the phenomenon of money may indeed be regarded as an example of applying the ideas about *homo œconomicus* and about dominant fully developed markets to the issue of the nature and origins of money. It may be admitted that such ideas really define modern mainstream economics.[26] And Crump’s result is significant in two respects. First, in such a theoretical framework the emergence of money is indeed to be

[25] Melitz (1974) provides evidence for the historical existence of a fourth one, namely the system from which the first coinage eventually emerged in the Eastern Mediterranean.

[26] It is not the place here to cover a comprehensive history of economics, suffice it to say that modern mainstream economics is the theoretical framework started by what is known as the neoclassical synthesis of marginal economic reasoning with the application of higher mathematics, the foundational work being Samuelson (1947). The *homo œconomicus* (agents who are rational optimizers of exclusively material wellbeing), full information, complete markets and contracts assumptions underlying this synthesis are originally, and most famously, formulated in Arrow and Debreu (1954).

expected, in fact inevitable. Second, examples of human societies even remotely approaching the conditions assumed in this theoretical framework are rare, to say the least.

But the theoretical framework behind the standard barter story, as told by Aristotle, Adam Smith or (more on this below) Menger is not the one adopted by neoclassical economics and by Crump. It does not require anything even remotely resembling “an established system of barter”. Somehow, without any explanation, Crump’s “established system of barter”, has morphed in Humphrey (1985) and later Graeber (2011) into the phrase “barter economy”, implying a human society where barter is the dominant form of exchange and all other conceivable forms of exchange among members of the society are non-existent or extremely marginalized. And it is claimed that the barter story is a myth because such barter economies are extremely rare.

In this theoretical aspect, the rejection of the barter story is based on a conflation of the original barter story with neoclassical economics. It is true that the barter story is very easy to incorporate in the framework built by neoclassical economics, and it may be argued that it has indeed been so incorporated through the decades. But that does not mean in any way that the barter story depends on the assumptions of neoclassical economics. The barter story is much older, by millennia, than neoclassical economics. Rejecting the assumptions of neoclassical economics cannot possibly constitute a rejection of the barter story. This is true for both assumptions of neoclassical economics – about the humans and about the markets.

First, the barter story does not require for actual humans to behave in accordance with the theoretical construct known as *homo œconomicus*. This construct, briefly, assumes away for economic agents all features of humans except individualism, rationality and optimization of the personal material well-being at the margin. This construct may fairly be described as fundamental for neoclassical economics. But it is not necessary for the barter story. All that the barter story requires is that some people have some human needs, have reached some level of division of labor, and are involved in some direct exchanges of things valuable to them. None of these conditions, necessary for the barter story to remain theoretically valid and an empirical possibility, can be rejected as non-existent by either history or anthropology.

Second, the barter story does not require a market-dominated barter economy in any way, including in theory. It contains no claims about the presence of “an already established system of barter” or about the existence of “a barter economy” as a necessary condition for the emergence of money. A barter economy is, conceptually and empirically, something very different from barter. A version of the barter story, which claims that for money to emerge barter must be the dominant, almost exclusive, form of exchange in the respective human society is just that: a version resulting from the conflation of the barter story and neoclassical economics. It has very little to do with its pre-neoclassical renditions.

Again, all that the original, not conflated, barter story requires is the existence of some spot exchanges of some material goods among some people, households or tribes, sometimes. Even Graeber (2011:29), in the very next sentence after quoting Humphrey, feels compelled to admit the reality of barter: “Now, all this hardly means that barter does not exist-or even that it's never practiced by the sort of people that Smith would refer to as "savages."” Theoretically, this admission is all that the barter story needs to remain a non-rejected hypothesis.

Finally, a barter story remains a possibility even under Crump’s extremely restrictive neoclassical assumptions. He, quite adequately given his formal mathematical model, claims that the emergence of money is to be expected only from an established system of barter. And then claims that empirically such systems are rare. But even within this framework, as unnecessary as it is for the original barter story, money emerging in a society which is not characterized by an already established system of barter is still a valid possibility, just not very likely. Such a mode of emergence of money would hardly be the first instance in the history of humankind of societal reality unfolding not precisely according to the statistical expectations of a formal mathematical theoretical model.

Closing the theoretical aspects of the rejection of the barter story, an interesting illustration of the theoretical point that the barter story requires no *homo œconomicus* to be a valid scientific hypothesis can be given by observing an informative lapsus in Graeber. As already quoted in Section IV, Graeber (2011:28) describes a certain stage of the development of the barter story in the following manner: “economists like Karl Menger and Stanley Jevons” adding “mathematical equations” to Adam Smith’s original tale and substituting “all sorts of impressive technical vocabulary” made the story so powerful that it became “simple common sense for most people.”

Leaving aside the question how precisely the use of mathematical equations and technical vocabulary makes a story more commonsensical for most people, the most intriguing point in the whole paragraph is the name “Karl Menger”. It is mentioned in a double context: in the context of theorizing on the origins of money, and at the same time in the neighborhood of phrases such as "mathematical equations" and "technical vocabulary". It seems another conflation is happening here. Graeber is obviously conflating the mathematician Karl Menger with his father the economist Carl Menger. The son Karl did use mathematical equations and technical vocabulary. The father Carl did write on the phenomenon and origins of money. Neither did both.

In fact, if Graeber ever even perused Carl Menger's published writings, he would not have discovered any mathematical equations anywhere in any of them. On the contrary, an even superfluous look at the major work of Carl Menger on money, including its possible origin from barter,[27] would clearly show that the humans Menger described and discussed in the context of his barter story of the origins of money are nothing like the "economic men" of later economics. They are indistinguishable from the humans discussed by sociologists such as Emile Durkheim[28] or anthropologists such as the already mentioned and quoted Marcel Mauss and Bronislaw Malinowski. Yet, while explicitly not resorting to any assumptions about *homo œconomicus*, and without a single mathematical equation, Menger still manages to convey the barter story of the emergence of money as an economic institution. Reading Menger leads to only one possible conclusion: the barter story requires neither *homo œconomicus*, nor established market systems.

Vc. A brief methodological digression: archaeological evidence and ideal types

When it is claimed that no evidence for something has ever been found in the case of prehistoric human societies, it is of crucial importance to carefully define what precisely in the archaeological record would constitute such evidence. For example, in terms of pre-historic exchange among humans, pottery or obsidian tools, or skins identifiable as being produced or obtained in a certain place (source) and found in another place at least some distance away is evidence that exchange may have taken place.

The question about the evidence for barter, then, is: what do archaeologists need to find to have grounds to conclude that the exchange observed has been conducted precisely in the form of

[27] Menger 2002[1909], originally published in German as the entry *Geld* in the third edition of the encyclopedia *Handwörterbuch der Staatswissenschaften*.
[28] See for example Durkheim 1997[1893].

barter? What would the archaeologically identifiable traces of barter as opposed to, for example, migration, gift exchanges, peace settlements, blood-money, bride-money, tributes, be?

It does not seem that this question has so far been given an answer satisfactory enough to be able to really test hypotheses about barter in the archaeological record. Because of this, any claim that the fact that archaeology has not found explicit evidence for barter constitutes an absence of evidence for barter is methodologically unjustified.

A further methodological issue revolves around the question whether barter may be an analytically useful concept from the category introduced by Max Weber as the "ideal type". The ideal type is understood as an abstract representation of a theoretically relevant concept which, while not by itself necessarily rooted in reality in every possible aspect, is useful for understanding the structure of the otherwise complex phenomena being studied. In physics for example, such conceptualizations include the ideal gas and the ideal hard body. In the studies of human societies ideal constructs have a dense presence, for example in the very notions of "feudalism", "capitalism", "socialism", or "modernity", "class", "left" vs. "right", "democracy" vs. "authoritarianism", including the notions of "reciprocity" and even "the gift" itself. And an inalienable characteristic of ideal types is that they are never to be found in actual reality in their complete, perfect conceptual form precisely because they are deliberate simplifications aiming at understanding rather than at completely describing every single detail:

> "An ideal type is formed by the one-side *accentuation* of one or more points of view and by the synthesis of a great many diffuse, discrete, more or less present and occasionally absent *concrete individual* phenomena, which are arranged according to those one-sidedly emphasized viewpoints into a unified *analytical* construct (*Gedankenbild*). In its conceptual purity, this mental construct (*Gedankenbild*) cannot be found empirically anywhere in reality. It is a *utopia*. Historical research faces the task of determining in each individual case, the extent to which this ideal-construct approximates to or diverges from reality, to what extent for example, the economic structure of a certain city is to be classified as a "city-economy."" (Weber 1949:90, italics in the original)

The first sentence of the above quote is an exhaustive list of all accusations thrown by Graeber at the barter story. In that respect he is completely correct: the barter story does involve the use of an ideal type. It is undisputable that the pictures of people bartering drawn by Adam Smith, or Barclay Head, or Richard Temple, are idealized. However, establishing this undisputable fact is not a sufficient condition for a claim that the story involving an ideal type is uncapable of helping understand what actually happened in real life. Rejecting the barter story solely on the grounds that it involves an ideal type is methodologically unjustified.

Vd. A brief linguistic digression: an extra dose of *metadosis*

There is another issue illustrating the problems involved in the inference that the barter story has been rejected, and it is again to be found in Graeber (2011) with reference to Polanyi (1957). When he presents the emergence of the barter story, attributed by him to Adam Smith, Graeber duly remarks that Smith's approach may have been grounded in Aristotle's *Politics*, where the ancient Greek philosopher, according to Graeber (2011:24) "was speculating along vaguely similar lines" about how money emerged as a convention out of barter.

Graeber does not refer to a specific place in *Politics* but does make a strong claim in an endnote related to this topic. There (Graeber 2011:394 note 6) he states the following:

> "Neither is it clear we are really speaking of barter here. Aristotle used the term *metadosis*, which in his day normally meant "sharing" or "sharing out." Since Smith, this has usually been translated "barter," but as Karl Polanyi (1957a:93) has long since emphasized, this is probably inaccurate, unless Aristotle was introducing an entirely new meaning for the term."

If one embarks on investigating this assertion, the first interesting thing to note is the use of "*metadosis*" written in Latin letters, while it is known that Aristotle wrote in Ancient Greek. To dissect Graeber's claim, it may be necessary to go to the relevant text in Greek.[29] The whole section 1257a is important, but the most relevant passage is given here in both Greek and English:

> "οἱ μὲν γὰρ τῶν αὐτῶν ἐκοινώνουν πάντων, οἱ δὲ κεχωρισμένοι πολλῶν πάλιν καὶ ἑτέρων, ὧν κατὰ τὰς δεήσεις ἀναγκαῖον ποιεῖσθαι τὰς μεταδόσεις, καθάπερ ἔτι πολλὰ ποιεῖ καὶ τῶν βαρβαρικῶν ἐθνῶν, κατὰ τὴν ἀλλαγήν. αὐτὰ γὰρ τὰ χρήσιμα πρὸς αὐτὰ καταλλάττονται, ἐπὶ πλέον δ᾽ οὐθέν, οἷον οἶνον πρὸς σῖτον διδόντες καὶ λαμβάνοντες, καὶ τῶν ἄλλων τῶν τοιούτων ἕκαστον."

[29] This relevant text is Politics 1257a. It can be found here: https://archive.org/details/L264AristotleXXIPolitics/page/n67/mode/2up or here: http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0057%3Abook%3D1%3Asection%3D1257a

> "For the members of the primitive household used to share commodities that were all their own, whereas on the contrary a group divided into several households participated also in a number of commodities belonging to their neighbors, according to their needs for which they were forced to make their interchanges by way of barter, as also many barbarian tribes do still; for such tribes do not go beyond exchanging actual commodities for actual commodities, for example giving and taking wine for corn, and so with the various other things of the sort."

Comparing Aristotle's actual text with the claims Graeber makes based on the authority of Polanyi, one is to meet with four surprises. The first one is that in Greek the word is *μεταδόσεις*, the most significant thing about it being that it is in plural. So even if the adequate translation has to do with "sharing" rather than with "exchanging", it must be "sharings" meaning that it designates a number of more concrete acts rather than an abstract concept of sharing. An intriguing detail is that the meaning of the word may not be as simple as an abstract "sharing", but rather "giving a share, imparting".[30] "Giving a share" is different from "sharing" or from "sharing out," yet it is also clearly a completely traditional meaning of the word and if that was the meaning meant by Aristotle, he was not introducing anything unusual. And in reality, "giving a share" (of what one household has produced in excess of its current needs) is precisely the adequate interpretation of the word in the context of Aristotle's exposition.

Further, the combination of the translation of the word as "giving a share" and the fact than Aristotle used it in plural, means that the correct literal translation should be "givings of shares". This phrase is obviously inconveniently clumsy so any translator would have to try and find a suitable English word for it. And here comes the second surprise. Despite Graeber or Polanyi, the word *μεταδόσεις* is not translated as "barter", but rather is translated as "interchanges." Interchanges in the sense of "givings of shares" among several households here is an adequate attempt to capture Aristotle's meaning: he was describing how households produce specific commodities in excess of their current needs of such commodities, and then gave each other the excess portion (share) of their commodity in return for the excess portions (shares) of other commodities produced by other households.

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[30] See, for example, here: http://www.perseus.tufts.edu/hopper/morph?l=metado%2Fseis&la=greek&can=metado%2Fseis0&prior=ta\s&d=Perseus:text:1999.01.0057:book=1:section=1257a&i=1

The third surprise is that Aristotle does convey the notion of barter. In Politics:1257a he uses the concept 4 times. And in all 4 times the word is not *μεταδόσεις*, but various forms of *ἀλλαγή*, whose translation as barter is, given the context and its general meaning as "change", quite adequate.

So, in reality it is not only the case that Aristotle was talking about precisely barter, but by referring to this practice as something being done in his own time by peoples he chooses to call "barbarian tribes" he actually provides written evidence of the existence of barter by a contemporary. As a fourth surprise in terms of Graeber's claims that no evidence of barter has ever been recorded, Aristotle's Politics:1257a is an actual case of written evidence by an actual contemporary of the observed existence of a "barter economy" – the widespread practice members of society to "make their interchanges [givings of shares, *μεταδόσεις*] by way of barter" – among "many barbarian tribes." Thus, rather than weaken the possible relevance of the barter story, a careful reading of Aristotle's words in fact weakens the claim that no case of a "barter economy" has ever been observed or described.

VI. Anthropologists' rejection of the barter theory of the origins of money: a restatement

The major finding in the preceding section may create the impression that the anthropologists' rejection of the barter story is rejected. Such a conclusion, however, would be too hasty. The reason is that what has emerged is in fact not one, but two very distinct rejections, and only one of them is shown to have failed.

The successful rejection is of a barter story, according to which fully rational, omniscient, exclusively and singularly devoted only to marginal optimization of material wellbeing humans used to have in the past fully-fledged market economies based entirely on barter. And since barter is inconvenient and costly in terms of time, coordination, small change, and all kinds of other scarce means, the rational omniscient materially optimizing economic agents were bound to supplant it with something more convenient, cheaper, faster, more flexible. And that was the institution of indirect exchange with its instrument – money.

The anthropological critique of this version of the barter story is that it is theoretically and empirically untenable. Theoretically, in terms of social science, any story based on an assumption of agents who are fully rational, fully informed marginal optimizers of material wellbeing cannot claim to have anything to do with actual human reality. According to this critique, even if *homo œconomicus* may be recognized as an ideal type, it is an ideal type which is unacceptable: it is not a useful simplification helping to understand, it is a confusing, wrongheaded and detrimental for understanding human society construct.

Empirically, the anthropological critique adds, no evidence of fully-fledged market economies based on barter can be found anywhere in the human record. And since it is in the context of such state of affairs that the emergence of money seems to be expected, if not inevitable, the absence of such contexts in the records of the human past puts a strong empirical doubt on the viability of this version of the barter story.

Looking at this neoclassical version of the barter story, it is not difficult to agree with its rejection. Money, a well-established fact past and present, could not have emerged from *homo œconomicus*, because *homo œconomicus* never existed. Money could not be claimed to have emerged within a fully-fledged market economy based on barter at the time historical record indicates it most likely emerged, because fully-fledged market economies based on barter most likely did not exist for any human society in those times. Labeling the marriage of the assumption of *homo œconomicus* with the assumption of fully-fledged market economies coupled with the usage of higher mathematics to model it as "neoclassical synthesis" in economics, then it is very difficult to disagree with the claim that the ideal type of a neoclassical synthesis economy is not useful, and even detrimental, to understanding actual human social reality.

As far as it goes, this critique is well reasoned and well empirically defended. Neoclassical economics has been caught in an age-old fallacy: using an ideal type to clarify and make analytically operational important concepts and then forgetting about it and treating (assuming) the ideal type as the actual historical truth. The evidence of the anthropologists thus constitutes a real challenge to neoclassical economics.

But this critique, as helpful and as well-argued as it is, goes only so far. It does reject the neoclassical synthesis version of the barter story.

But there is also another version of the barter story. It is the version told by Aristotle, Adam Smith, Carl Menger. It does not involve ideal types of either humans or their economies as market dominated. As mentioned in subsection Vb above, all that this version of the barter story requires is the existence of some spot exchanges of some material goods among some people, households or tribes, sometimes. The people described in this version of the story are not *homo œconomicus*, but demonstrably real-life human beings with passions, failings, ignorance, but also with a propensity, among other propensities, to "truck, barter, and exchange one thing for another". The economies described in this version of the story are in no way dominated by fully-fledged markets; all they have is the presence of some barter exchanges, even if sporadic, rare and infrequent. And the story is that money may have emerged from barter even in these conditions, following a societal process of evolutionary emergence of institutions described in most detail in Menger (2002).

The result of the investigation undertaken in the previous sections is that this, indeed the original, version of the barter story of the origins of money has not been rejected. Any claims that this version of the barter story has been rejected have been shown to be theoretically and empirically groundless.

This is not to say that the barter story is necessarily true or even a good approximation of the actual historical reality. It may very well be proven in the future to be wrong, or at least to be only one component among others in the historical emergence and unfolding of a societal phenomenon as complex as money. No such thing has, however, been proven yet.

The anthropologists' misgivings about the barter story rendition in neoclassical economics and its textbooks are reasonable, well grounded, well supported with evidence, and deep. They are based on many relevant and precious grains of truth, and it may do economics a world of good if it is able to face them and incorporate their insights about the complexities of actual human societies in its main theoretical body.

Still, despite strong claims to the contrary, the basic original insight of the barter story has not been rejected yet. Until this happens, and despite all the grains of truth in it, the story of the rejection of the barter story is also just another myth, pure and simple.

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