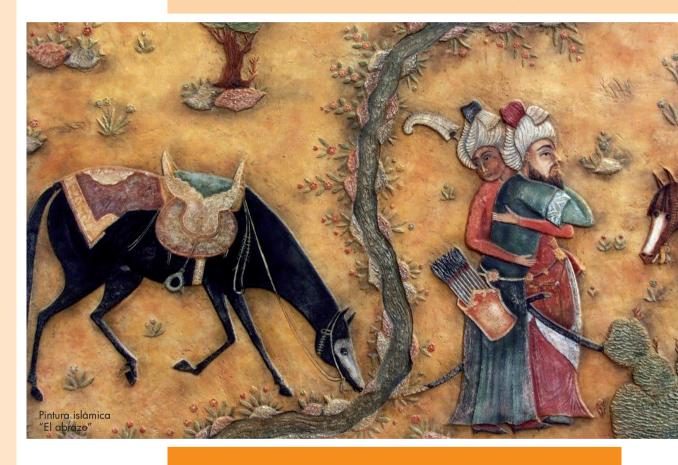
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La Calidad Académica, un Compromiso Institucional



Money: origin and essence

Leonidas Zelmanovitz

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MONEY: ORIGIN AND ESSENCE*

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ABSTRACT

This paper is meant primarily to summarize and integrate some concepts about the origin of the monetary institutions and their main characteristics.

KEYWORDS:

Monetary institutions, exchange, money, monetary policy, history of money.

JEL CLASIFICATION: B12, B13, E13, E42, E52.

RESUMEN

DINERO: ORIGEN Y ESENCIA

Este artículo quiere en primer lugar resumir e integrar algunos conceptos sobre el origen de las instituciones monetarias y sus características principales.

Palabras clave: Instituciones monetarias, cambio monetario, dinero, política monetaria, historia del dinero.

Clasificación JEL: B12, B13, E13, E42, E52.

RESUMO

DINHEIRO: ORIGEM E ESSÊNCIA

Este documento está dirigido principalmente para resumir e integrar alguns conceitos sobre a origem das instituições monetárias e suas principais características.

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Palavras-chave: Instituições monetárias, o intercâmbio, o dinheiro, a política monetária, a história do dinheiro.

Classificação JEL: B12, B13, E13, E42, E52.

RÉSUMÉ

ARGENT: L'ORIGINE ET L'ESSENCE

Cette étude vise principalement à résumer et à intégrer certaines notions sur l'origine des institutions monétaires et de leurs principales caractéristiques.

Mots clés: Institutions monétaires, change, argent, politique monétaire, histoire de l'argent.

Classification JEL: B12, B13, E13, E42, E52.

"The fundamental facts that brought about cooperation, society, and civilization and transformed the animal man into a human being are the facts that work performed under the division of labor is more productive than isolated work and that man's reason is capable of recognizing this truth".

LUDWIG VON MISES, Human Action, Liberty Fund Ed., 2007, Vol. 1

INTRODUCTION

There are many possible means when it is said that something is "natural". In prescribing something in accordance with "Natural Law", it only compounds to the problem.

It is generally accepted in philosophical jargon that only attributes pertaining to living beings may be considered as having a "nature"; all other things having "character" instead, being it a rock formation or a social construct. When the "nature" of money is mentioned in the following pages, it is a reference to its characteristics that is meant.

In this paper it is assumed that human beings, for reasons of their being, were able to develop complex social relations in order to have a more specialized division of labor. This trend has been spontaneously followed by different human societies in time and place because humans have been able to realize the benefits of doing so.

It comes as a platitude, but the fact that the development of human society towards more specialization of the division of labor has been spontaneously generated does not imply that conscious efforts to shape better (and worse) political institutions have not taken place.

characteristics of money,
that is, its properties as
medium of exchange and
as unit of account, money
is one of those institutions
without which the complex
level of division of labor
that we enjoy today would
not be possible.

Because of the two main characteristics of money, that is, its properties as medium of exchange and as unit of account, money is one of those institutions without which the complex level of division of labor that we enjoy today would not be possible.

That is so because the nature of the division of knowledge among the individuals determines that only through the price mechanism developed in a free market with private property, liberty of contract and a fair administration of justice, it is possible for them to coordinate their actions to the maximum of its potential; and without money there are no market prices and therefore the social coordination produced is always suboptimum.

So, money may be understood as something that has evolved naturally in human society, because it helps human beings, as they are, to develop through the division of labor a complex nexus of social relations that enhances their potential to live a fruitful and happy life. But, for the last 25 centuries of our civilization, money has been generally supplied by the state, so how can one say that money is not a creature of the state or that money should not be used to foster government's goals? As Menger says (Huerta de Soto, editor, 2009, page 230, in Spanish):

"The fact that governments treated money as if it actually had been merely the product of the convenience of men in general and of their legislative whims in particular contributed therefore in no small degree to furthering errors about the nature of money".

It is the intention with this paper: a) to present a possible evolutionary path followed by money until our days¹; b) to highlight some of the theoretical assumptions of Austrian economists about money; c) to present some of the assumptions and criticisms of the Acatallactic theorists; and d) to argue why invoking the origin of money in order to explain its characteristics today is not fallacious.

The historical "sketch" against what I have attached some references is presented rather loosely, it is not the

. SETTING THE PREMISES

Some hints of Paleoanthropology - As currently accepted by Paleoanthropologists, our species, the Homo Sapiens, originated in Africa about 160.000 years ago and started to migrate "Out of Africa" about sixty thousand years ago, eventually colonizing all continents except for Antarctica and in the process displacing other Homo species (Science Daily, May, 2007). About ten thousand years BCE (before common era), the end of the last Glacial Era coincided with the end of the Paleolithic and found human beings living in bands scantily sprawled all over the world. Those bands, probably organized in clans (no more than the extended family), practiced hunting and gathering in order to survive. Some males, females and their offspring composed those clans, but it was already an evolution in comparison with the apelike bands, centered in an Alfa male, committed to expel from the group or kill any young grown-up male; which was the Homo genus prevailing kind of social group for millions of years².

At the beginning, the individuals inside the bands performed the same activities, with no function specialization among them. As time went by, the labor specialization benefits were perceived and the individuals began to organize their groups in order to implement more and more labor specialization. As stated by Mises (Mises, 2007, page 160):

"The factor that brought about primitive society and daily works toward its progressive

intensification is human action that is animated by the insight into the higher productivity of labor achieved under the division of labor".

Some became hunters (the males), others became gatherers (the women and children) and others became the repository of the accumulated knowledge of the group (the very few surviving seniors at a time when life expectancy, on average, was lower than thirty years). Indicia of a certain division of labor at the time of the Upper Paleolithic (from 30.000 to 10.000 BCE) were found among the Cro-Magnon to attest to this (Burns, 1975, Vol. I, page 12).

Coerced as it may have been, the division of labor increased in social importance with the growing gains of productivity derived from agriculture and the labor specialization itself, since it is a self-generating and self-improving phenomenon.

From the bands of hunters we can skip few thousand years going to the beginning of the Neolithic, the introduction of agriculture and the first pre-urban societies about 5.000 BCE in Europe³, 7.000 BCE in Egypt and probably earlier than that in the Middle East (Burns, 1975, Vol. I, page 15). The people were then living in small villages, surviving mainly on the domesticated animals and plants. At that time, they were probably organized in tribes, those tribes were composed by the existing clans amalgamated and each tribe numbered maybe hundreds of individuals; and the labor specialization was a fact dictated by custom and,

intention with this paper to produce a history of money, however, a more specific historical set is occasionally given in order to support the presentation of some concept.

This description is based on the insights of Sigmund Freud as read from his 1913 book Totem and Tabu, since, as stated by Mises (Mises, 2007, page 160):

[&]quot;Neither history nor ethnology nor any other branch of knowledge can provide a description of the evolution which has led from the packs and flocks of mankind's nonhuman ancestors to the primitive, yet already highly differentiated, societal groups about which information is provided in excavations, in the most ancient documents of history, and in the reports of explorers and travelers who have met savage tribes".

³ Although there are still today clans of hunters, tribes of illiterate farmers and so on, evidencing different chronologies of social development, in order to understand the role of money for us today, from now on in this paper we will follow a schematic time line representative of modern western civilization history and the history of our predecessors.

it is reasonable to assume, enforced by brute force in most places.

The individuals in those societies were entitled to the product of others basically by customary rules and a barter system. The Witch Doctors probably received their maintenance from the group because the other members of the group were customarily obliged to pay them. The Artisans, who specialized in the production of weaponry, probably resorted to barter to acquire food; and the women most likely performed the provision of shelter and clothes also in customary form, regardless of the level of coercion involved⁴.

The introduction of a unit of account – Even at the most primitive stages of society, human exchanges require some sort of commensuration. Even for bartering, criteria of proportionality must be generated, since barter is already a complex form of human interaction under the division of labor. As stated by Mises (Mises, 2007, page 229):

"Monetary calculation is the guiding star of action under the social system of division of labor. It is the compass of the man embarking upon production".

What makes, at a given place and time, two oranges for an apple and, at other times, two apples for an orange a fair (voluntarily accepted) deal? Many other human interactions require a commonly accepted standard of value. You need to compare incommensurables in order to pay a corvée, tithes, taxes, gift exchanges, and etcetera. And the logical necessity for a unit of account derives from there.

It seems reasonable to presume, however, that that necessity was fulfilled by the introduction of some medium of exchange and not by the creation of some abstract unit of account. As explained by Mises (Mises, 2007, page 229):

"The system of economic calculation in monetary terms is conditioned by certain social institutions. It can operate only in an institutional setting of the division of labor and private ownership of the means of production in which goods and services of all orders are bought and sold against a generally used medium of exchange, i.e., money".

It seems acceptable to suppose that, for millennia, all those proportionalities among different goods, services and obligations in the primitive societies were established quite arbitrarily, with only vaque proportionality. That was so because in the absence of a unit of account, rational calculation was not possible and there are no known references in history to abstract units of account before recent times. So, for the purposes of this paper, although it is conceded that the necessity for a unit of account is different than the necessity for a medium of exchange, since that necessity was only satisfied by the introduction of some medium of exchange (being it tallies, bills of exchange, or any other merchandize with monetary characteristics), in dealing with the introduction of the latter in society, this paper also deals with the introduction of the former⁵.

The introduction of media of exchange - At this point of our schematic timeline, the conditions for the introduction of money in human society had arisen, but it took several thousand years more of experimentation and evolution to a medium of exchange take the form of coined rare metals.

In those pre-urban tribes, each individual or group of individuals started to specialize in the

⁴ It seems relevant to call the reader's attention to the fact that the case for liberty does not rest on trying to show that our ancestors were rational and free.

We can assume a fair amount of coercion in the primitive societies and still argue that by a process of trial and error humanity learned the benefits of the division of labor and then the natural necessity for liberty arouse.

It seems also relevant to address the difference between the logical necessity for a unit of account and for a medium of exchange; without accepting, however, that in primitive societies the former could be supplied by any mean other than by the introduction of the latter.

production of some desirable good in order to barter with the others. Those tribesmen must have had great difficulty finding counterparts for their barters. For example, a wheat producer willing to exchange his production for cattle had to find a cattle grower wanting wheat; they needed to match their reciprocal necessities otherwise no barter would occur.

Aside from the daily exchanges inside the tribes, we can imagine the occasional meetings with people of other tribes; we can imagine that if no evident martial advantage had been present in favor of one group, they would prefer to practice commerce to war or, at least one can assume, only the descendants of those who more consistently adopted that behavior prospered. To engage in commerce with foreigners (tribe "B") who presumably were not interested in the goods produced by local people (tribe "A"), a third merchandize could be used as means of exchange.

For example, suppose that both tribes "A" (farmers) and "B" (farmers and ranchers) needed salt, but only tribe "A" would have access to tribe "C" dwelling on the sea shore and salt producers. So, tribe "A" in contact with tribe "C" on the beach could exchange some of their farm products for salt. And on their turn they would be able to acquire ranch goods from tribe "B" using not their own products but salt in their barter.

That salt performed the function of "medium of exchange". In our example, salt became a suitable commodity to perform that role due to the following attributes: It is divisible in small amounts; it is easily attested or tasted if you wish; and it maintains its properties for a long time. The main drawbacks to the use of salt as a medium of exchange are its small intrinsic value (you need to carry a load of salt to have a reasonable value) and the fact that it is perishable.

With time and the introduction of metallurgy, the precious metals or any metal for that matter were identified by the people as ideal media of exchange. Metals were then used as proxy to the Aside from the daily exchanges inside the tribes, we can imagine the occasional meetings with people of other tribes; we can imagine that if no evident martial advantage had been present in favor of one group, they would prefer to practice commerce to war or, at least one can assume, only the descendants of those who more consistently adopted that behavior prospered.

of civitas, cities, was contemporary with the invention of writing, of metallurgy and the use of metals in bullion as medium of exchange.

barters, fulfilling the role of salt in our example as medium of exchange, not in the coined form of later but by their weight. And all the costs of scaling and assessing the metals' quantity and purity involved in a transaction were tradeoffs assumed by the participants in that transaction.

We were then at the beginning of civilization, the Neolithic faded out, the Bronze Age started about 5.500 BCE and the Iron Age started about 5.300 BCE. The establishment of civitas, cities, was contemporary with the invention of writing, of metallurgy and the use of metals in bullion as medium of exchange. Living in cities, the tribes became dissolved in the proto-states of those times. By then human societies numbered thousands of individuals and the labor specialization was already assumed as a given feature of society at that time. New classes of individuals such as warriors, scribes, priests, artisans, peasants arose at those times and human societies became increasingly complex.

The problem of social coordination - The social coordination of individual effort became an extremely relevant issue. As societies evolved, it is reasonable to assume that customary practices alone were no longer enough, and other rules were required. Some rules of social behavior were then imposed by religion and might as well. The rulers were entitled to sizable amounts of peasants' and artisans' production through the enforcement of those rules and the control of coercive means, like armed guards. The first agro-urban societies were basically societies of command, like an army or a religious order today. An important part of the social interaction was not voluntary⁶.

In sum, they were coordinated spontaneously. There are some emotional responses among human beings that repeatedly generate some patterns of behavior under similar conditions. Human beings

Most likely no one asked the Egyptians (were they peasants, slaves or whoever they were), if they wished to spend their spare time between the harvests building the pyramids.

are always trying to change from a situation of less pleasure to a more pleasurable one, maximizing their utility, satisfying their hedonism, or trying to accomplish their eudemonia, if you wish.

However, another important part of individuals' activities was voluntary (not coerced), creating new practices that with time became customary and tolerated or even sanctioned by the powers to be. How did they come into being, how were these voluntary activities coordinated? We need to go no further than to one of the most quoted passages of Adam Smith's Wealth of Nations (Adam Smith, WN, 1981, I.ii, page 27) to find out:

"It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest".

Or as Adam Smith clarifies few lines below this passage:

"As it is by treaty, by barter, and by purchase, that we obtain form one another the greater part of those mutual good offices which we stand in need of, so it is this same trucking disposition which originally gives occasion to the division of labor. In a tribe of hunters or shepherds a particular person makes bows and arrows, for example, with more readiness and dexterity that any other. He frequently exchanges them for cattle or for venison with his companions; and he finds at last that he can in this manner get more cattle and venison, than if he himself went to the field to catch them. From a regard to this own interest, therefore, the making of bows and arrows grows to be his chief business, and he becomes a sort of armourer".

Human action - As Ludwig Von Mises wrote quoting Locke and Leibniz: The incentive that impels a man to act is always some uneasiness (Mises, 2007, Vol. I, page 13). This desire to better their condition, this egoistic motivation is human beings' prime motivation. You can argue whether Madre Teresa in pursuing her altruism was actually doing what she liked most and

whether or not it was an egoistic motivation, but even if we recognize (something really easy to do) that human beings have other motivations besides their material betterment, we can count on that prime motivation to build on it a pattern for social interaction, that is: the spontaneous order generated by the market. At the introduction of "Human Action" while criticizing Historicism, Marxism, Statism and Irrationalism in general, Ludwig Von Mises argued that all scientific inquiry is based on the assumption of: ... the uniformity and immutability of the logical structure of human mind as an unquestionable fact (Mises. 2007, Vol. I, page 2). In the same way, and as a consequence of this uniformity in human nature, we can identify a regularity and uniformity in laws of social cooperation.

The spontaneous order will be a benign one if the institutional arrangements are such that the road for self-betterment is serving well the others, or it will be a malign one, like the Hobbes' "state or war", if selfish desires can be satisfied in other ways rather than serving well the others. But, again, regardless of the moral quality of the interactions, the recurrent emotional responses of human beings have spontaneously generated a pattern of behavior in their social dealings as history has shown us time and again.

Kosmos and Taxis - Along the evolution of our hypothetical time line of social organization (from the clan to the state), of technology (from gathering to metallurgy), which clearly happened during thousands of years with different beginnings in different places in a process of attempt and failure, other pure spontaneous social institutions arose; languages as we know them today, for instance; and there is no better example of spontaneously generated social institution as language to draw an analogy with markets. Languages were created many tens of thousands of years before the first states; they appeared to supply a human necessity, no one commanded their use, it was not required. The ability to speak is so intrinsically a human attribute that some perceive it as the distinctive human attribute. This link between human nature and a spontaneous generated social institution can be perceived in the markets as well.

Now we are able to differentiate two kinds of social orders, in Hayek's denomination: orders by command (taxis) like an army, and spontaneous orders (kosmos) like languages. Both orders are human creations, ordering some social interaction. It is important to note that the main distinction between them does not rely on the presence of coercion in each kind of order. For instance, a spontaneous order can be quite coercive (a hierarchy of caste or sex) and freedom can be achieved through an order of command where markets and the rule of law are established by deliberate designing an imposition, such as in the United States. Their main distinctions need to be found elsewhere⁷. One may find among the distinguishing properties of spontaneous orders that (a) their degree of complexity is not limited to what a human mind can master, (b) their existence can be based on purely abstract relations and (c) because they are not consciously created, they cannot be said to have a purpose, and that is a key factor to keep in mind when analyzing the role of money in society.

When human beings need to coordinate efforts to reach the same goal, command orders are usually preferred, but when the individuals need to coordinate their efforts in order to allow themselves to pursue their own individual goals, spontaneous orders usually suit better.

The life of a peasant or an artisan at the dawn of human history was not easy with all those warriors and priests giving orders and seizing the output. The first states were political societies in which, generally speaking, the subjects were not allowed to have individual goals, and the entire group was coerced into pursuing the social goals revealed by the deities as traditionally proclaimed by the priests and enforced by the kings.

But the archeological evidence from the "Hydraulic societies" in Mesopotamia, from ancient Egypt

and India, of many small shops and small farms attests that even at those dark times when the light of civilization was rare in a world almost entirely dominated by brute force, individuality thrived. The autocrats of that time, and of all times for that matter, fundamentally lacking capacity, regardless of their will or even interest in organizing the entire social life in command format, left some space for individual initiative. Granting differences in time and place are evidence that portions of the economic activities inside the cities were not commanded; it may be inferred as well from the historical records that most of the intercity trade was also not stated owned although it may have been monopolized, and for sure it was regulated and taxed. It was the beginning of the markets. There were markets for farm products inside the cities, markets for foreign goods, etcetera. Most of those markets were organized on certain days in some venues where buyers and sellers met to trade. At that time, markets were not an abstract concept but an actual place in which buyers and sellers could meet.

At that stage of human evolution, about five thousand years ago, the resource to metallic medium of exchange was widespread. Rare metals like gold and silver were perceived as the ideal medium of exchange among traders. An Egyptian trader could acquire timber in Tyro paying in gold, after he could travel to Crete to sell the timber in exchange for copper, he could then acquire olive oil in Israel paying with the copper and travel back to Luxor to sell the oil and receive gold bullion (mined in Ethiopia) once more. Persons, regions, countries could then specialize in the production of certain goods and services and trade them using metals both bare and rare as medium of exchange; but a further step was still necessary for the Fertile Crescent and Mediterranean ancient civilizations to have something recognizable as money; that is, coinage.

Coined money – According to George Winder (Winder, 1959, page 20), the Chinese were

Another fact worth mentioning is that it is not coercion that distinguishes the two kinds of social order refereed in this paper.

the first to manufacture gold coins (in the shape of knives and spades). Quoting Sir George Macdonald, the same author attributes the invention of coins in Europe to Greek merchants to facilitate the circulation of their stocks of metals. He also says that the first European rulers to strike coins were the Kings of Lydia, a fact well established⁸.

About 600 BCE, the first known gold and silver coins (the Lydian Lion as it is known is made of a gold and silver alloy called *electrum* and known as white gold in ancient times) were minted in the Lydian Kingdom, located in part of where Turkey is today, at the time that Croesus was their king. According to Herodotus in his *Histories* (Herodotus, 2007, 1.94.1, page 55):

"[The Lydians] were the first of all people we know of to use coinage struck from gold and silver, and the first to become retailers of goods they did not themselves produce".

They managed to do that; and by spreading the concept to the neighboring countries they helped the establishment of the first monetary societies (Figure 1).

Coinage should be understood as a certification of the weight and purity of that specific piece of metal with a seal stamped on it for this purpose given by someone credible to the community. From then on, metallic money became available; the prices in the markets could be no longer referred to their equivalent in some weight of metal but in pieces of metal, in coins. The premises for all further monetary developments were settled.

2. UNDERSTANDING MONEY

This paper has three objectives: first, to describe succinctly what may be believed to be the history

At that stage of human evolution, about five thousand years ago, the resource to metallic medium of exchange was widespread. Rare metals like gold and silver were perceived as the ideal medium of exchange among traders.

In his aforementioned 1959 "A Short History of Money" George Winder also says that Croesus, in order to face the problem posed by the varying in the amalgam of the

introduced in order to make transactions easier among barterers by lowering their transaction costs in acquiring information about the relative prices among their respective goods and services. This «unit of exchange» is from now on defined in this paper as the «standard of value».

of money; second, to present the different views about money's origin and its essence held by the Chartalists and Austrian economists; and third, to attempt to understand the validity of their claims.

Transaction costs – For the Austrian economists, money is an institution, spontaneously evolved in society that in order to fulfill its proper role must have some clearly define attributes. But to begin with, it is necessary to answer the question: - proper for what? We will start from this point. The proper role of money in human society is to ease the barters among the producers, to enhance the division of labor, to lower the transaction costs of the exchanges. A medium of exchange was introduced among the barterers with the purpose of "clearing" the exchanges, like in a hypothetical clearance house for all the barters?

Coherent with the observation of Prof. Douglass North that the costliness of information is the key to the cost of transacting, part of the transaction costs in any deal is associated with the gathering of information about the best opportunities for trade. How can one acquire knowledge about the relative value of a myriad of different goods without a unit of exchange, without a measure of the value of some good against which the value of all the others goods could be referred to? So, a unit of exchange was introduced in order to make transactions easier among barterers by lowering their transaction costs in acquiring information about the relative prices among their respective goods and services. This "unit of exchange" is from now on defined in this paper as the "standard of value" 10.

two metals composing the electrum, abandoned it for a double system of gold and silver coins, a statement that I am unable to attest.

⁹ It is important to note that the proper role for money would continue to be easing the transactions by diminishing their cost, even if at any historical opportunity it was introduced by state coercion and not voluntarily adopted by the barters. This topic will be better addressed later on in this paper.

At this time it is important to point out the subjective characteristic of money's value, this recognition lies at the very foundation of Austrian Economics as it can be

Figure 1



Another part of transaction costs that led to the introduction and permanence of money in society is associated with the lack of liquidity in the markets, i.e., the lack of information that makes difficult to match supply and demand for a certain product at a certain price in the absence of some key elements soon to be mentioned. The way to overcome these costs of transaction associated with illiquid markets is by providing a "clearance" service for the community, a service of transferring inventories from where they are abundant to where they are scarce, activity better known as "speculation" or "arbitrage".

But this activity requires investments in inventories, which on their turn require the existence of "working capital".

In raising capital either with equity or debt, transference of purchasing power happens; the

power to dispose of goods in society, embodied in the "working" capital, is transferred, in the case we are just describing, to the hands of the service provider and it occurs for a certain period of time. After all, how could obligations with no simultaneous maturities be "cleared" in the hypothetical clearing house of our description? It would be impossible. So, here we meet other reason for the adoption of money in society: the capacity to readily dispose of goods in society that we described as embodied in the "working capital" must be represented by assets of a very special class, assets so generally accepted by the owners of the available goods in exchange for them, that without any coercion, the possession of such assets represents "de facto" the capacity to readily dispose of practically everything available in that society. This special class of assets is money.

attested by quoting Menger in his 1871 Principles of Economics (edited by Huerta de Soto, 2009, page 224, in Spanish), first Menger quotes Turgot saying:

[&]quot;...Money, among all possible 'measures of exchange value', is the most suitable and hence also the most common. The only defect of this measure is said to lie in the fact that the value of money is not fixed, but changeable". Then, Menger states:

[&]quot;In my discussion of price theory, however, I have shown that equivalents of goods in the objective sense of the term cannot be observed anywhere in the economy of men, and that the entire theory that presents money as the 'measure of the exchange value' of goods disintegrates into nothingness, since the basis of the theory is a fiction, an error".

It is important to the understanding of our argument (that any generally accepted medium of exchange is money, regardless of the fact that it may be a commodity, a note of credit or a fiduciary currency) to note that this "working" capital can be raised by either equity or debt. Also, it is important to note that this power of readily disposition of goods available in society is not a common characteristic of any asset. What distinguishes the referred "working" capital from a "fixed asset" conceptually? Which goods embody the proper features required to function as "working" capital that other classes of goods do not have? The answer to these questions will help us understand the proper attributes of money; and the failure of such understanding I would like to describe as the "lohn Law's second mistake" 11.

The Functions of Money – According to Benjamin M. Anderson, Jr. (Anderson, 1917, page 374), the functions of money can be described as:

- 1) Common measure of values (standard of value);
- 2) Medium of exchange;
- 3) Legal tender for debts;
- 4) Standard of deferred payments;
- 5) Reserve for credit instruments, including reserve for government paper money;
- 6) Store of value;
- 7) Bearer of options.

As discussed earlier, the crucial function of standard of value was historically only fulfilled with the introduction of a medium of exchange; the 3rd function seems to be part of the 2nd, the 4th part of the 1st, and the 5th and 7th part of the 6th. So the classical list of functions of money, i.e. standard of value, medium of exchange

and store of value, still holds, it is my opinion, although it can be more detailed as described by Prof. B. Anderson.

The central argument of this paper is that good money is money that fulfills properly its purpose. If money has all those functions described above, one may wonder if the most suitable characteristics necessary to better fulfill one of its functions may not be the most suitable feature in order to fulfill other function.

Thinking inside the parameters of the classical list of money functions, I argue that the function of standard of value was historically fulfilled by the introduction of a medium of exchange. And, it is important to note that the function of store of value is better fulfilled by a merchandize with the highest level of liquidity possible, other things being equal. Therefore, the core function of money is its function of medium of exchange as proposed by Menger.

Carl Menger's GAMOE definition - Because not every good in the market is as saleable as the others, in real life, the most saleable goods became accepted by the individuals in exchange for the goods they produced as a medium to acquire other goods they needed (from now on defined in this paper as medium of exchange). All the other functions of money derive from this primary one, confused with the very concept of money: - the Generally Accepted Medium of Exchange, or the "GAMOE" definition as firstly developed by Carl Menger (Menger, 1994, page 280) and widely accepted today¹².

Money for us is a "unit of exchange", a "standard of value" because it is the preferred medium of exchange. We could have a unit of exchange,

lncidentally, this idea that the essential attribute of coined money is its adequacy to be used as unit of exchange is already present in Aristotle's Politics (Aristotle, I.ix, 1257, 28).

At the beginning of the 18th century (1716) in France, John Law was the Scotsman who created a system of paper money for the King of France through the Banque Royale and its counterpart the Mississippi Company that ended in disaster. His first mistake was obviously to believe or make believe that wealth can be created by printing paper money; and what I would like to call his second mistake is to pretend that it is possible to "secure" the value of money on fixed assets like land (Rist, 1966, page 62)

a standard of value, that would not be the generally accepted medium of exchange, but in this case the traders would be required to do triangular calculus at each transaction. Money is a "stock of value" because not all exchanges happen simultaneously and the individuals demand the possession of some easily saleable good. What good fits better this purpose? It is the generally accepted medium of exchange, i.e. money. Originally money relies on the trust of the individuals accepting a "monetary" good as an instrument to acquire a certain amount of desirable goods. And any time we are confronted with questions about money, we must remember money's origins in order to understand its desired properties.

The previous paragraph states no more than a lesson learned from Mises (Mises, 2007, page 401):

"Money is a medium of exchange. It is the most marketable good which people acquire because they want to offer it in later acts of interpersonal exchange. Money is the thing which serves as the generally accepted and commonly used medium of exchange. This is its only function. All the other functions which people ascribe to money are merely particular aspects of its primary and sole function, that of a medium of exchange".

Money and the division of labor - The main difference between a monetary economy and a barter economy is the limitations of the latter to fully allow the division of labor. A monetary system must be a tool to allow and implement the division of labor. The more this system allows the division of labor, the more proper it is. Besides the absence of money, the division of labor may be constrained by other factors such as the size of market, the cultural background of people, the extent in which property rights are enforceable, et cetera, but it is not part of our goals to inquire about these other constraints.

Suffice to say that ceteris paribus, i.e., (hypothetically) for societies mainly with same size markets, and also same cultural background, et

Because not every good in the market is as saleable as the others, in real life, the most saleable goods became accepted by the individuals in exchange for the goods they produced as a medium to acquire other goods they needed. in general and coined gold in particular was due to the convenience of their use, the desirability of their properties as we can imagine from something voluntarily adopted by the people.

cetera, it is reasonable to assume a correlation between the intensity in which certain properties are present in the money used by a community and the extension of the division of labor in such community or, in other words, the complexity of its economic activities. It is a relation that works in both ways: a society that lacks labor specialization does not need monies with all the qualities of good money, and without good money labor specialization cannot be further developed. It is not any money that will allow one society to develop industrial activity not to mention complex capital markets. It is worth mentioning that at the time of the Late Roman Republic and Early Roman Empire, they had monies good enough to enable them to run an economy based on trade, agriculture and slavery for centuries, but even that primitive economy crumbled with the less adequate monies of the late Empire¹³.

What makes a coined piece of gold (or any other rare metal for that matter) better money than a bag of salt? Gold coins (from now on gold will be referred as a proxy for silver and other metals in this paper) were a more convenient medium of exchange than bags of salt, they were easier to carry, cheaper to store, and gold has higher intrinsic value.

At least from the second century BCE on (possibly earlier), Roman institutions were adequate to support long term financial transactions (Andreau, 1999, page 152), as M. Rostovtzeff wrote:

[&]quot;... The monetary chaos which reigned in the Greek cities and the Hellenistic monarchies before the period of Roman domination in the East was greatly reduced by the introduction of the paramount currency of the Roman state". (Rostovtzeff, 1926, page 171).

Later, however, at the time of the Emperor Alexander Severus (222-235 CE) the situation had deteriorated immensely as described by Rostovtzeff:

[&]quot;... the state resorted to compulsion and to organized robbery. As is well known, one of the most pernicious devices was the abuse of its monopoly of coinage. Looking round for new resources, the state did not shrink from pure forgery by debasing its currency, which the ever-increasing use of alloy made more and more worthless. The result was a tremendous increase in prices and the ruin of sound business." (Rostovtzeff, 1926, page 380).

The introduction of money in general and coined gold in particular was due to the convenience of their use, the desirability of their properties as we can imagine from something voluntarily adopted by the people. If the "monetary" goods have the properties desired by the money holders, these goods will ease the exchanges by diminishing the costs of transacting and with this enhance the labor division.

Illusions and misconceptions about money – But is money only the GAMOE? Apparently it is not. Once money is introduced and accepted as a medium of exchange, for some people, money becomes much more than simply an instrument for the goods that you can achieve through it; it becomes desirable by its own sake, something that neither the "preference for liquidity" rationally suggests, nor any rational use of money as a store of value recommends, but by the sheer illusion that so many people have that equates money with personal power, an enabler to buy everything, even "true love" as Nelson Rodrigues, a Brazilian playwright used to say. The dangers of some people entertaining those irrational ideas about money have been well present in philosophy and literature since Plato and Aristotle.

Because of that, one may argue that our account of GAMOE may be true as a norm, but not always as a description, a point made by some Chartalists and I am prepared to concede that. My understanding is that precisely because money is always the GAMOE, it can fulfill other psychological roles as well, with very dramatic consequences in real life, creating illusions and fostering vices. The psychological significance of money and its representation in the arts are topics that I do not intend to discuss in this paper, though.

Is money a creation of the State? - Yet another key characteristic of money could be understood by answering the question: - Is money a creation of the State?

George Friedrich Knapp's 1905 book State Theory of Money is the cornerstone of the line of thinking that believes money is a creation of the State. Prof. Knapp starts his books stating that:

"Money is a creature of Law. A theory of money must therefore deal with legal history" (Knapp, 2003, page 1)

To Prof. Knapp, the essence of a currency resides not in the material that its pieces are made of "but in the legal ordinances that regulates their use" (Knapp, 2003, page 2)

According to this school of thought, money has a much narrower definition than the GAMOE definition we are using. Their definition is a sort of tautology: - money is what the law says that money is; money is what the State determines or authorizes, money is what the State gives a charter (reason why this theory is also called *Chartalist*). Quoting Prof. Knapp again:

"All money, whether of metal or of paper, is only a special case of the means of payment in general. In legal history the concept of the means of payment is gradually evolved, beginning from simple forms and proceeding to the more complex. There are means of payment which are not yet money; then those which are money; later still those which have ceased to be money" (Knapp, 2003, page 2).

There are important consequences of the adoption of this narrow sense for money, first, the value of money becomes 'nominal' (reason why this theory is also called *Nominalist*), i.e. the value of money is, even if indirectly, through the control of money supply, determined by the state; second, since the value of money is determined by the State, the State can change the value of money in order to fulfill its goals and the individuals have no right to complain, after all, if money is created by the State, it is created to attend the objectives of the State, and Prof. Knapp is quite explicit about that:

"Now, when the State alters the means of payment, ..., does anyone lose? Of course; and why not, if the State has paramount reasons for its actions? It can never gain its ends without

damage to certain private interests" (Knapp, 2003, page 17)

One may assume that the State is interested in the division of labor and all that, but the immediate interest of the State is its fiscal considerations or other political goals that it may have. A corollary of this understanding about what money is that the ideal attributes of money are not the same ones if you accept that the main purpose of money is to allow and enhance the division of labor; these become factors of secondary significance, more important than those are attributes that one can give to money in order to have in it a more adequate tool for the achievement of government's policies.

Among the followers of the theory developed by Prof. Knapp, we find John Maynard Keynes, for whom money means essentially the standard of value, (Keynes, 1997, 229) and F. A. Mann who in his 1938 book *The Legal Aspects of Money* wrote:

"Only those chattels are money to which such character has been attributed by law, i.e. by or with the authority of the State. This is the State or Chartalist theory of money which in modern times has come to be connected with the name of G. F. Knapp, to whose principal work it has given the title" (Mann, 1982, page 13).

Both in the United Kingdom and in the United States of America (and almost everywhere) F. A. Mann's interpretation is incorporated into the *law* of the *land*¹⁴.

All these theoretical developments have started from a misconception in my understanding. The fact that the government enforces the currency is no more a proof that the money is a State creature than the definition of a standard grammar by some state sponsored agency to be adopted by the schools in the country is a proof that the language was created by the State, or the enforcement of corporate law is a proof that corporations are creatures of the State or that marriage is a creation of the State because civil law is enforced by the courts.

Of course it is in the interest of rulers everywhere to say that money is what they say that money is because of the corollaries already mentioned; but it does not become true only because a law says so; if traders use other medium of exchange rather than the government sponsored one, they are using money altogether, no less than blackmail ceases to be blackmail because it is performed by a public persecutor or a lie ceases to be a lie because it is said by a public official in the State's interest.

That once enforced legal tender, people usually accept fiat money as a medium of exchange is no proof that money is created by the State; if the fiat money is wisely managed as, say, arguably, the American Dollar was managed during Greenspan stewardship, it will be accepted, used and keeps its value in time and in comparison with other currencies; if the fiat money is badly managed, as, for example, the Assignants were during the French Revolution, it will be rejected.

From the fact that nowadays most of the currencies in the world are issued by stated owned monopolies, we cannot derive that, therefore, money is a creation of the State. As stated by Carl Menger in his 1871 *Principles of Economics* (edited by Huerta de Soto, 2009, page 216, in Spanish):

¹⁴ For Prof. Mann, "The State theory of money is the necessary consequence of the sovereign power or the monopoly over currency which over a long period of history the State has succeeded in assuming". For Prof. Mann, to permit the circulation of money that is not created or at least authorized by the State would be the denial of the government's monetary prerogative. He brings the definition of money into the Uniform Commercial Code of 1958 to support that in the United States money is a medium of exchange authorized or adopted by government as part of its currency. For Prof. Mann, there is no doubt that in the United Kingdom the State monetary prerogative exists and therefore, "the State theory of money rules" (Mann, 1982, page 14).

"The origin of money (as distinct from coin, which is only one variety of money) is, as we have seen, entirely natural and thus displays legislative influence only in the rarest instances. Money is not an invention of the state. It is not the product of a legislative act. Even the sanction of political authority is not necessary for its existence".

Once laws protecting individual's property rights against violence and fraud are enforced by the state, a generally accepted medium of exchange, i.e. money, will emerge without the necessity of any other state initiative.

Catallactic and Acatallactic theories - In Mises' The Theory of Money and Credit there is an Appendix "A" on the Classification of Monetary Theories (Mises, 1980, page 503). In this text, Mises presents a broader distinction between "Catallactic" and "Acatallactic" doctrines according to which all monetary theories can be classified. He explains that "Catallactic" is an adjective meaning something pertaining to exchange and "Catallactics" is a noun meaning the study of commercial exchange. So, the Acatallactic theories about the value of money are those not based on the market observation but on other factors such as (a) the valor impositus. i.e. in the command of the State, (b) biological analogies which equates money to blood, (c) "functional" analogies that compare money with speech, and finally (d) legal jargon that considers money as a draft against everybody else.

It is interesting to note that Mises calls our attention to the fact that the theories that confound the value of money with the value of the monetary merchandise are actually Acatallactic, since they do not take into account that the value of the medium of exchange results precisely from that (although he also notes that this rationale eventually leads to the sources of value of the monetary merchandise and from there to its market value which inevitably takes into account its monetary potential). Prof. Mises even mentions Knapp's definition of Metallism that: "The metallist defines the unit of value as a certain quantity of metal" is not what Knapp actually means. According to

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Mises, for Knapp, any non-nominalistic theory is a metallist one and so comprising catallactic and Acatallactic ones. Prof. Mises quotes Knapp saying that Adam Smith and David Ricardo were metallists, an "incomprehensible error" if one considers the writings of these authors on money.

For Mises, a consistently developed theory of money must be merged into a theory of exchange, that is, it must be Catallactic and therefore all Acatallactic theories about money can be claimed of being erroneous because they failed to be consistently integrated with the theories about the spontaneous order generated in society by the market interactions of individuals. Mises clearly states that in pointing out the epistemological importance of Carl Menger's Theory of Money while dealing with "indirect exchange" in Human Action. He suggests that the main deficiency of the doctrine sponsored by those authors who tried to explain the origin of money by the authority of the state or a conscious compact between citizens is their "assumption that people of an age unfamiliar with indirect exchange and money could design a plan of a new economic order, entirely different from the real conditions of their own age." (Mises, 2007, page 405).

This point is particularly important, since for Mises (Mises, 2007, page 407):

"The historical question concerning the origin of indirect exchange and money is after all of no concern to praxeology. The only relevant thing is that indirect exchange and money exist because the conditions for their existence were and are present".

Consistent with the idea that historical evidence can support a theoretical understanding about human society but can never prove or disprove it due to the complexity of social phenomena, a preliminary conclusion that can be drawn from these passages is that the introduction of stated coined money in society happened when the social conditions for the development of that specie of medium of exchange were already in place; and therefore, even if it is

true that the adoption of coined money was primarily motivated by fiscal considerations, money does not lose its catallactic essence because of that.

Back to Appendix "A" of The Theory of Money and Credit, discussing the "State Theory of Money" Mises calls our attention to the fact that the nominalistic doctrinaires must concede that the State can only establish the validity of money's nominal unit, "but not the validity of these nominal units in commerce". (Mises, 1980, page 507) With that he hopes to demonstrate that there is an implicit recognition of the limitations of the theory to actually explain money's value. But then, he argues, there are always princes interested in the intellectual support of that doctrine for such an important source of revenue as the debasement of the currency, what explains its longevity and good health.

Finally, Mises (Mises, 1980, page 522) uses the contradictory attempt of Philippovich to advance a double definition of money that on the one hand identifies the value of money with the nominal value attributed to it by the State, and on the other, it identifies the monetary unit with its purchasing power to show the sharp contrast between the nominalistic and the catallactic conceptions about money, regardless of Philippovich claims that he is just expressing Knapp's views with his definition. In opposition to these attempts to find Acatallactic definitions of money's value, Mises states in *Human Action* (Mises, 2007, page 418):

"Money is neither an abstract numéraire nor a standard of value or prices. It is necessarily an economic good and as such it is valued and appraised on its own merits, i.e., the services which a man expects for holding cash".

CONCLUSION

The purpose with this paper is not to discuss the *minutia* of the distinctions between the different historical accounts or in what instance the view of one school about the opposing theory may be misunderstood; however it is possible to accept that an important part of the reciprocal claims against the other school are based on simplistic and not charitable interpretations and therefore the disagreements could be greatly reduced.

The chartalists' claim that the catallactic theories of money intend to base their views on the nature of money based on its origin is one of these instances.

It is important to note that the critics of catallactic theories about the origin of money are not disputing the historical account about the evolution from bartering to commodity money per se. The views on money shared by Georg Knapp, A. Mitchell Innes, Lord Maynard Keynes and more recently L. Randall Wray differ from the views of David Hume, Adam Smith, David Ricardo, Carl Menger, Ludwig von Mises and all modern marginalists not only about history but most importantly on their conceptions about the essence of what money is¹⁵.

For instance, in the book Prof. Wray, who is one of the neo-chartalists, edited on the contribution of Mitchell Innes, in the introduction co-authored with Prof. Stephanie Bell, he claims that a "state theory of money" and a "credit theory of money" can be integrated and suggests that an early contact with Innes' credit theory of money (1914) was what led Keynes to an interest in Knapp's

¹⁵ It is important to note from the quotation on the next paragraph that according to Prof. Wray, the same reasoning, aiming to explain the essence of money from its origin, is utilized by Innes; in his case, claiming that money is originally, and still remains, essentially a form of credit.

theory and was instrumental in the development of his own theory. Wray and Bell write (Wray, 2004, page 7) that the "conventional" view on the evolution of money, as described by Innes, is that "barter is replaced by a commodity money that can be used as a medium of exchange. Only much later is credit discovered, which can substitute money and thereby reduce transaction costs". According to them:

"Innes reverses this evolution, arguing that by its very nature, money is credit – even if it happens to take the physical form of precious metal. This leads to a much different take on markets, on money and on credit relations".

That the origin of a thing does not necessarily explain the essence of that thing is easy to accept. This sort of reasoning that confuses the causal origins of a belief with its justification is usually named as a "genetic fallacy" and probably was first called as such by Morris Cohen and Ernest Nagel in their Logic and Scientific Method (New York, 1934) according to the Oxford Companion to Philosophy (Honderich, 2005, page 331). However, it has been disputed that in any case that the origin of something is called to explain its essence there is confusion. What is understandable is that it may not be accepted, prima facie, that the origin of something necessarily explains its current meaning and context; however, it is perfectly possible that, in a particular case, the origin of something does explain its present form and function.

Let's suppose that, as a matter of historical account, the chartalists are right in stating that coined money in the western civilization started with the fiscal needs of the state.

Quoting Prof. Thomas Martin (Martin, 1996, page 258):

"The current consensus among ancient historians and numismatists seems to be that the state's need for a convenient medium of exchange to pay for official expenditures motivated the initial adoption of coinage in the Greek polis".

Does it prove that a unit of account was first introduced in human society by force of authority and not because it is convenient to think in terms of comparable goods? Absolutely not.

Does it prove that the purpose of money in society is to foster state policy and not to allow and enhance the division of labor? Again, that is a non sequitur.

Incidentally, it is precisely because traditional forms of compulsory service were in disuse as they had been replaced by a market-oriented division of labor that the authorities needed money, as explained by Prof. Martin (Martin, 1996, page 270):

"Lacking a central authority to compel contributions or labor through the threat of force, the urbanizing Greek city-state had to find other ways to pay for and to maintain the common structures and services of its ever more complex physical and festal infrastructure".

As clearly stated by Prof. Martin, it does not matter much if it can be singled out the original intent in minting coins and found it to be a fiscal one, at the beginning of our civilization coinage was mingled with the evolution of our civilization, from a more primitive, traditionally ruled society, to a more sophisticated, marked-oriented one (Martin, 1996, page 258):

"It seems reasonable to hold as a premise of the investigation that this connection had its roots in the earliest history of coinage in the polis, which of course does not mean that the original reasons for the adoption of coinage by city-states necessarily remained the only reasons that they continued to mint coins over the succeeding centuries. Coinage, like other technological innovations, surely had unintended consequences over the long run. In any case, speculation (and that is all our evidence allows) about the perhaps diverse reasons why Greeks living in city-states originally adopted the use of coinage seems an appropriate way to begin thinking about the multi-faceted issue of the significance of archaic

and classical Greek coinage in and for the **polis** as a political community".

To summarize, the known evidence does not allow us to establish with certainty what were the motivations of the first rulers that minted coins in ancient Greece: that lack of evidence exists about the introduction of coined money in other civilizations as well, allowing us to generalize that there are no concrete historical evidences about the rationale for the introduction of coinage. That does not imply, however, that the introduction of coinage did not happen at a time and circumstances which demanded for low transaction cost tools for the coordination of economic activity among the individuals; what was in its turn, cause and consequence of the expansion of the division of labor. It was in this environment of multiple relatively small city-states in the Hellenistic world trading and fighting among each other that the circumstances for the introduction of coined money arose. The fact that the fiscal needs of the city-state could be better addressed by the collection of coined money through taxation than by the imposition of Egyptian like forced labor may be understood as an argument to reinforce the catallactic theory of the origin of money and not to contradict it.

As quoted from Mises on note 1, there are no historical or ethnological reliable descriptions of the evolution of human societies before the formation of clans, it can only be guessed. More than that, not only in relation to the origin of society, but also in relation to many aspects of primitive and modern society (Mises, 2007, page 160):

"The task with which science is faced ... can only consist in the demonstration of those factors which can and must result in association and its progressive intensification".

According to Mises, praxeology solves the problem by the development of the theoretical apparatus about the benefits of the division of labor, its recognition by the individuals and social results (Mises, 2007, page 160):

It was in this environment of multiple relatively small city-states in the Hellenistic world trading and fighting among each other that the circumstances for the introduction of coined money arose. "If and as far as labor under the division of labor is more productive than isolated labor, and if and as far as man is able to realize this fact, human action itself tends toward cooperation and association; man becomes a social being not in sacrificing his own concerns for the sake of a mythical Moloch, society, but in aiming at an improvement in his own welfare".

The cause why under the division of labor higher productivity is achievable, according to Mises, is that: "the inborn inequality of men and the inequality in the geographical distribution of the natural factors of production – is real." (Mises, 2007, page 161). And it is the recognition of that aspect of reality that enables us "to comprehend the course of social evolution" in general, and with this paper, it is ventured to say, that it enables us to understand the evolution of money as well.

Basically, the understanding expressed in this paper about the Charlatist's thesis is that, as a matter of historical record, since money became coined money, almost always, almost everywhere, money production has been monopolized by the state; and as mentioned before, that seems to be supported by historical evidence. However, that does not imply that the purpose of money in society is given by the state, or that money should be (its normative) subordinated to the political goals of the rulers. After all, Knapp himself was in favor of the gold standard, he was not an inflationist.

If we understand their claim in this more limited way, part of the divide between Georg Simmel and the Austrian economists on one side and Knapp and the charlatists on the other side seems to lose its relevance, since one can accept Simmel's views on the value of money that so significantly influenced Mises' theory of money's value or Menger's views on the purposes of money

for society and still recognize that coined money has been provided directly or indirectly by the state since it was introduced 25 centuries ago.

A complete different thing is to say that money must be provided by the state or that the state is following the most beneficial course of action for society in keeping its monopoly on money production through the legal tender.

From a praxeological perspective, it seems that it is more relevant to focus our attention on the essential character of money as a social institution and that is something not contradicted by the fact that men holding political power have monopolized money production in human societies from times immemorial.

At the time of Rome, the state was responsible for the grain supply, in many parts of the world not long ago, telephone communications were monopolized by the state among many other things that are not controlled by the state anymore.

The fact that money has been monopolized by the state does not imply that it is the right thing to do or that it must continue to be that way. It may be accepted that, framing the claim of the chartalists in this way, it loses some of its appeal to economists that do not develop a deeper analysis in search of the philosophical foundations of the monetary institutions; most economists simply see that money has been provided by the state and from that they accept at face value Keynes' immoralist conclusions (what obviously are a non sequitur).

It may be argued that acknowledging the claim that coined money has been produced by the state does not preclude a principled criticism of monetary policy.

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