理论与应用 ●●●●

Approaches to the Semiotics of Money and Economic Value

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Abstract: In this paper, I begin with a short review of the major semiotic contributions on money and economic value, from both the dyadic (Saussurean) and triadic (Peircean) traditions. I then examine the evolution of money from its prehistory as barter to present day electronic currencies. In each phase, I argue that the money sign increased in arbitrariness and became better for thinking, before all other deriving financial benefits. I focus the analysis on two dimensions. First, the temporal dimension, by assuming Goetzmann's idea that money and finance are crucial for "the ability of humans to imagine and calculate the future". The second dimension, in which I find a deep homology between money and our human condition, is in the scarcity principle, which relates to scarce (or finite) temporality and is the structure of any possible sense of our being according to Heidegger.

Keywords: Semiotics, economic value, money, thinking, temporality

货币符号学与经济价值研究

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摘 要:本文首先简要回顾了包括二元(索绪尔)传统到三元(皮尔斯)传统在内的,有关货币与经济价值的重要符号学文献。接着,

笔者考察了货币从在史前的物物交换到当下电子货币的演化进程。本文认为,货币符号在衍生出其他经济价值之前,伴随其任意性的增加,会愈加有利于思考。对此,本文将着重从两个方面展开论述。首先,在时间维度上假设戈茨曼的观点,即货币和金融对"人类想象和计算未来的能力"至关重要。其次,在第二维度上笔者发现金钱与人类状况存在着深层的同源性,它具有一种与稀缺的(或有限的)时间性相关的稀缺原则。根据海德格尔,第二维度也是人类任何可能的感觉结构。

关键词:符号学,经济价值,货币,思想,时间性

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I.Introduction

The notion of economic value has not been adequately treated in semiotic theory. Whilst several insightful papers have been published on the notion of money, no established theory exists. In this paper, I will put two notions of money together and outline a possible theoretic approach.

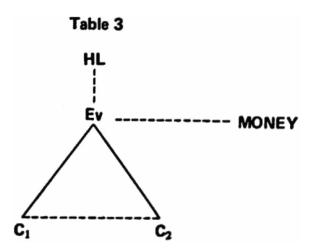
It is not difficult to see the semiotic relevance of economic phenomena. Everything that does not involve immediate production or consumption is subject to a transfer in form of value over time and space. Whilst money is not the only medium to transfer economic value, it is the most emblematic economic sign. Accumulation and the transfer of value are the grounds for any economic action, and the semiotic approach can be used to analyze the relationship between the medium and its content. The semiotic perspective can also reveal the major difference between the "conventional act of communication" and the economic one. In the first case, an infinite reproduction of the signs is possible. In the second, there is a strict limitation of correspondence because the quantity of the money signs in a given system should correspond to the quantity of the available economic value in the market. If there is an over-reproduction of economic signs, they start to lose their value in the process known as inflation. Furthermore, as we will see later, "transaction semiotics" rather than communication occurs when we exchange economic signs.

As in other fields of semiotics concerning economic value, there are

Peircean and Saussurean foundations. In the dyadic tradition, Saussure draws the parallel between the semantic value of linguistic and economic signs, considering also the methods of linguistics and political economy (1916, Chapter 3.1). The focus of this approach is on exchange value. In contrast, the triadic tradition adopts the Marxian perspective on incorporated labor and considers both exchange and production value.

I . Triadic Tradition

Umberto Eco makes the most direct projection of the Peircean triadic model of the sign and economic value. In the introduction to *Theory of Semiotics* (1976), in which he proves that every social phenomenon is subject to semiotic principles, he proposes a kind of semiotic model of the exchange of goods. The model is triadic and articulates the exchange value of goods (Ev) into human labor (HL) and MONEY.



Eco formulates why this model works as part of a theory of semiotics, but not as a semiotic theory of the economic value:

The only difference between a coin (as sign-vehicle) and a word is that the word can be reproduced without economic effort while a coin is an irreproducible item (which shares some of the characters of its commodity-object). This simply means that there are different kinds of signs which must also be differentiated according to the economic value of their expression-matter. (1976, pp. 25–26, original emphasis)

The necessary scarcity of the "expression-matter" is the condition for possibility of the value/meaning of the money sign. As we will see in the present-day economy, although money is often in the form of immaterial electronic scripture, the condition for its value is limited by its infinite reproduction.

The Italian philosopher Ferruccio Rossi-Landi takes a semiotic Marxian approach to economic value, has dedicated several books to the problem and created a school of thought that has attracted many followers. Following Hegel's and Marx's theory of labor, the basic assumption of this approach is that

[...] man is the result of his own work, and it is through such work that he has progressively severed himself from the other animals. One of the most important aspects of this theory is that everything that has value (and therefore, as we shall see, everything that has meaning) is always a product of human work; value is something that man has introduced and continues to introduce into the world (theory of labor-value). All social sign systems also have meaning and value as products of human work. (Rossi-Landi, 1975, 1788)

In exploring the *homology* between physical and linguistic labor, Rossi-Landi develops a larger research programme, which seeks to reveal the new dimensions of the class alienation imposed by bourgeois society. Whilst the linguistic workers, the common people, are the real producers of the common socially shared language, the rules for its use and the control of its circulation are in the hands of those who possess the channels. Rossi-Landi develops a multi-level model to show how physical and linguistic labour are homologous in the process of value creation. He describes 10 levels of production with increasing complexity of the produced material/technological and linguistic artefacts:

First level: Pre-significant item

Second level: Irreducibly significant items

Third level: "Completed" pieces

Fourth level: Utensils and sentences Fifth level: Aggregates of utensils

Sixth level: Mechanism

Seventh level: Complex and self-sufficient mechanisms

Eighth level: Total mechanism or automation

Ninth level: Non-repeatable production

Tenth level: Global production (Rossi-Landi 1975: 1862—1888)

Rossi-Landi, however, does not comment on the fundamental difference between the infinite possibility of reproduction of the linguistic sign and the strict limitation of the reproduction of the signs representing economic value, namely, the money sign. In the chapter dedicated to "linguistic money" (Ch. 5. 2. 1. 2, p. 1932 ff.), Rossi-Landi emphasises how spoken words, the equivalent of money in speech, are always there, suggesting that they are something given and not produced by the speakers themselves. Such situations thus alienate the speakers from their own linguistic activity.

The major interpreter and follower of Rossi-Landi, Augusto Ponzio, dedicates a chapter in his book, Man as a Sign (1990), to a critique of equal exchange semiotics (1990, p. 185 ff.). In this important theoretical contribution, he puts the classical semiotic doctrines in direct relation to the problems of the economy and market. Ponzio makes a parallel between Saussurean semiology and marginalist economic theory to reveal the influence of the Genève economic school, and in particular Walras and Pareto (185), on Saussure. Their economic theory almost entirely ignores the effects of the phases of production, labour and consumption on the expense of the phase of exchange. Thus, Ponzio demonstrates that the same deficiency exists in Saussurean semiology. Whilst in the marginalist economic model this is the notion of "equilibrium", in semiology, it is the language—system—langue and the derivative notion of code. Following Peirce, Bakhtin and Rossi-Landi, Ponzio emphasises that social practices, market exchange and linguistic communication do not finish with the message passed from the sender to the receiver as codified content. Rather, in the logic of Marxian semiotics, human interaction is always interpretative, dialogical and productive, and in working and communicating, we are becoming what we are in an infinite process. In this way, Ponzio not only ignores the differences in the reproduction of economic and linguistic signs, but also defines a perspective in which considering such a difference is as misleading as the mercantilist assumption that gold and money creates wealth.

II. Dyadic Tradition

From the structuralist paradigm, the dyadic tradition has also made important contributions to the field. Saussure postulates the methodological difference between the synchronic and diachronic approach in linguistics and political economy. In both disciplines, the exact scientific method can be achieved at a synchronic level as long as "both sciences are concerned with a system for equating things of different orders—labor and wages in one and a signified and signifier in the other" (Saussure, 1916, p. 79). More concretely, Saussure elaborates this idea as follows:

Both factors are necessary for the existence of a value. To determine what a five-franc piece is worth one must therefore know: (1) that it can be exchanged for a fixed quantity of a different thing, e. g. bread; and (2) that it can be compared with a similar value of the same system, e.g. a one-franc piece, or with coins of another system (a dollar, etc.). In the same way a word can be exchanged for something dissimilar, an idea; besides, it can be compared with something of the same nature, another word. Its value is therefore not fixed so long as one simply states that it can be "exchanged" for a given concept, i. e. that it has this or that signification: one must also compare it with similar values, with other words that stand in opposition to it. (1916, p. 119)

This point is as important to postmodern philosophy as Saussure's work on semiology, the science of signs. For instance, two of postmodern philosophy's leading figures, Baudrillard and Derrida, base their thinking on economic value off the Saussurean model.

Baudrillard's contribution to the semiologic interpretation of economic processes is comparable to Rossi-Landi. He authored several books on the topic, especially during the first two decades of his research. Baudrillard's approach can be characterised as dyadic, even though his attacks on the capitalist system are as fierce as those of his Italian colleague. His criticism is guided by the idea that if we want to understand the repressive mechanism of capitalism we must focus on consumption and the Marxian notion of product fetishism instead of work, production and exploitation. According to

Baudrillard, the capitalist system in the consumption phase substitutes the logic of use value with the differential value of the linguistic sign, as described by Saussure. The differential value of consumption means that goods and services "imprison" the consumer in a network of meanings that refer from one to another and not to the supposed objective needs, which some economists believe are the origin of the demand and economic value. The network of meanings (social standing, fashion, distinction) is socially constructed and self-referential. The logic of our consumer choices represents the uncritical participation in the priorities of the capitalist system—overconsumption and alienation—compared to our genuine interests and relations.

Although Baudrillard uses the notion often, he does not analyse the money sign in particular. Nonetheless, his work raises some insightful points about the credit system and the relationship between money and temporality. Baudrillard is critical of the insidious mechanisms of consumer credits and explains them as follows: "The illusionism is truly remarkable: society appears to extend credit to you in exchange for a formal freedom, but in reality it is you who are giving credit to society, alienating your future in the process." (Baudrillard, 1968, p. 160) Thus, credit divides you into two selves separated in time: one is apparently free now (the buyer) and the other is obliged to earn in future (the payer). (p. 162).

For me, it was a surprise that Jacques Derrida already addressed the important elements of this proposal and also overlapped with Baudrillard on many points. In Derrida's Given Time: I, Counterfeit Money (1992), he demonstrates his deconstructive approach (inspired by the Saussurean model of sign) to explore the paradoxes of the gift. Can we give our time as a gift? For Derrida, this is a metaphysical spiral. Can we give counterfeit money to a beggar? Of course, it is possible, but what does it mean? What are the transformations in value from the perspective of all those involved? In his paradoxical and aphoristic style, Derrida addresses such fundamental topics as Marcel Mauss' theory of the Gift (1925), the golden standard as a guarantee for the value of money (the scarcity principle), the advent of consumer society and the shift from the logic of production to the logic of consumption, the consumer culture of tobacco, and so on. Whilst Derrida addresses many

ideas, he does not present a model or positive line of analysis for further development. Thanks to Michael Tratner's article, "Derrida's Debt to Milton Friedman" (2004), we can appreciate the real semio-financial intuitions of the French philosopher compared to the theories of Milton Friedman, the greatest financier of 20th century.

Derrida compares the notion of credit in the economy with that of differance in language. According to Derrida, these notions play the same role to keep the respective system open to the infinite play of differences (1992, p. 158). The implications of this observation are similar to Friedman's provocative comments on money: namely, that money "is, at bottom, a social convention which owes its very existence to the mutual acceptance of what from one point of view is a fiction" (Friedman, 1963, p. 696). Tratner's conclusions are crucial to our analysis. He notes that "changes in the sign system itself, in money, are some of the most important determinants of economic events" (2004, p. 798).

IV . Holistic Approaches

In contrast to the studies above, which view economic value and money within semiotic and post-structuralist paradigms, some studies take money and economic value as the point of departure. In this approach, the semiotic method is used to emphasise the importance of the monetary reality for thinking about sociality at large. As I have previously shown (Bankov, 2016, p. 190), money is good for thinking. Together with the scarcity principle, which is the condition of possibility for the value/meaning of money, this observation reveals in the most comprehensive way the semiotic understanding of the economic exchange.

In "Making Semiotic Sense of Money as a Medium of Exchange", Alan Dyer (1989) confronts the deep semiotic understanding of money as a medium of thinking with the major economic theories. In his words, "By re-presenting objects and experiences as comparable containers of exchange value, money symbolically transforms life and, thus, mediates our understanding of it" (Dyer, 1989, p. 505). In other words, market transactions are not just culturally neutral economic exchanges; they are deeply human interactions

that involve sharing a common understanding and worldview. Steven Horwitz (1992) departs from this idea in "Monetary Exchange as an Extra-Linguistic Social Communication Process", where he elaborates on the affinity between the subjectivist theory of economic value (the Austrian school) and the hermeneutic ontology of Gadamer. His most important insights concern the similarities between the two systems. For Horwitz, money does not correspond to messages as most researchers think, but to language itself, within which prices have the function of a word or message (1992, p. 208). In his model, he projects the notion of text on the economic reality because it corresponds to the notion of the market (1992, p. 210 ff.).

V . Semiotic Evolution of Money

I will now examine whether a semiotic principle exists behind the development of the money sign throughout history. Then, I will explore how the "expression-matter" of money reflects the way new social structures emerge and, from a semiotic perspective, the way we construct our life projects.

The first cultural form of economic exchange is the barter. The barter has a rudimentary semiotic function: the good we possess in abundance is less useful for our needs than some other good that can be exchanged for it, i.e., the good we possess is a material representation/store of certain future needs that it cannot itself satisfy. The range of this semiotic function is extremely limited because the barter occurs when two economic actors whose needs and abundances coincide. This is how the barter principle gradually evolved towards a more flexible principle of exchange—the commodity money. The commodity money occurs when certain goods—such as cattle, grain, salt, etc.—are in higher demand in the barter exchange than others. These goods are thus produced in larger quantities and people start to exchange their commodities for such "universally" requested goods because they are certain that in the future they will be able to exchange it for what they really need. Commodity money brings the semiotic function of the economic exchange one step further. Because these commodities are usually more durable, the economic actor can store a larger economic value and plan for a longer future compared with a barter. Still, commodity money is made of perishable and

consumable objects, which ultimately limits its use. The next form of money is also commodity money, but it concerns more sophisticated types, such as adornments, ornaments, ritual objects and pieces of precious metals. In this case, the symbolic function is very explicit and the fact that these objects are not "useful" and consumable makes them a better storage of economic value (but also forms of power) and better devices for the transfer of that value in space and time.

The big jump in the evolution of the money form came with the *coin*. The *fungibility* of the coin gives it a particular semiotic property that makes it different from previous forms. Coins are similar to previous forms in that they store and transfer economic value. However, they differ because they are also pieces with the same value that can be counted and do not need to be measured and considered separately. Coins are much better for thinking and calculating than previous forms, allowing for a different level of planning and accounting, that is, a different level of social governance.

The shift from ornamental money to coins occurred independently around the world. China constitutes the first and most interesting case. The first coin prototypes in China were artificially produced duplicates of cowries. Cowries were extremely important in China, and even after the advent of coins, they continue to have ritual and economic significance (Goetzmann, 2016, p. 148). The significance of cowries can be explained by the fungibility principle. The bronze copies of cowries were the first hybrid form of coins. However, before that, the Chinese invented spade money and knife money as two other original forms. All three forms are typical of the transition from a barter to a monetary economy described above.

Similar to Ancient Greece and the Roman Empire, the centralised use of coins in China began with the unification of the Empire by the Qin Dynasty from 221 BCE. This new form of money affected both the governance and everyday business activities of the people. In both cases, it became easier to plan for the future and the existence of symbols of power on the coins improved trust in the system. One of the most semiotic definitions of money describes it as "trust inscribed" (Ferguson, 2008, p. 30).

Another semiotic dimension of money concerns its relation to natural

language. The Chinese monetary reality provides an example of how this synergy developed:

The shell/money radical in the Shang era is clearly a pictographic representation of a shell. It also forms the root of many other Chinese characters associated with commerce, among them treasure (bao 寶), collateral (dai 貸), wealth (cai 財), buy (gou 購), sell (mai 賣), possession (zi 賣), redeem (shu 贖), and more. As such, it became one of the fundamental building blocks in the Chinese written language representing money, wealth, and value. Because of the special nature of the Chinese written language, we can trace how the fundamental concept of money is embedded in communication and also likely embedded in Chinese thought. (Goetzemann, 2016, p. 151, emphasis added)

Starting in Chengdu in the 11th century, the development of paper money was another Chinese milestone in monetary history. At first, the Jiaozi were faced with the technical problem of too many iron coins. As a result, they developed and perfected the use of personalised promissory notes, which existed in a variety of forms. Paper money, in the modern sense, appeared in Europe in 1661. Paper money increased the semiotic function of the monetary sign. The value of coins was ensured by, on the one hand, the ruler's official inscription and, on the other hand, the metal itself. The development of paper money started from the statute of "representative money", where a deposit of coins or precious metals guaranteed the value. Soon, however, the governors realised the power of this form and began to print money that was not guaranteed by valuable deposits. This money was "trust inscribed" and its value was entirely dependent on the authority. This made it easy to abuse power by printing money and causing its devaluation. In semiotic terms, such money signs were more arbitrary in the Saussurean sense than previous forms. When Eco compares money to language in the quotation above, he uses the coin as an example of a money sign. This distinction, however, would not be so clear if he was taking paper or electronic money as an example. Both these forms can be reproduced 'without economic effort' and governments often do this, such as after the suspension of the gold standard of convertibility of the US dollar in 1971, as Derrida describes.

Ⅵ. Temporality as the Essence of Economic Value

With the advent of the bank, computing became the pure semiotic essence of money. As one author called it, the computer is "an accountable electronic writing" (Herlin, 2013, p. 13). The evolution of the money sign started with perishable consumable goods and ended with the intangible electronic record. This increasing arbitrariness of the money sign, however, differs from the linguistic sign that Saussure describes. The arbitrariness of the money sign makes it a more sophisticated medium of economic interaction, which integrates the financial aspect of life into both short-and long-term thinking. According to some authors, human writing began to serve economic accounting (Davies, 1997, p. 49; Goetzmann, 2016, p. 1). These authors insist that this financial aspect of social organisation is crucial for "the ability of humans to imagine and calculate the future" (Goetzmann, 2016, p. 2) and "a system of thought", which is "embedded in the broader structure of society" (p. 11).

From this perspective, the easier the money form is to think with (i.e., calculating, managing, integrating it into practical projects), the better the society's economic performance. Money is not a neutral measure of real economic activity. Nor is it a neutral means for the existence of the market exchange. Rather, money is deeply rooted in the social tissue because of its role in storing and transferring economic value in space and time, both on an individual and collective level. Money can only perform such functions, however, if it keeps its value. In language, it is taken for granted that signs keep their value: the system of *langue* is difficult to completely change. In contrast, the economic system can suddenly collapse, as has previously occurred. When this happens, it does not mean that our needs or our capacity to work and produce use value have collapsed. Rather, our general trust in the system, which is supposed to guarantee that such needs and use value will be met in the foreseeable future, has collapsed. This is the deep semiotic function of money. In modern societies, the most direct expression of the social contract is to keep the purchasing power of money stable because it ensures the planning and management of business activities. Economic value

increases with the stability of the economic system, independent of the use value produced. As Keynes would say, the propensity for consumption changes the structure of the demand and raises the economic performance of the system. To improve the performance of the system, the value of the foreseeable profits is crucial because it increases factors such as the size of the investment, the human resources involved, and planned incomes.

From the triadic semiotic perspective, it thus seems that the only way to keep the value of money is with the golden standard, that is, without the external referent. In the present system, the value of money seems to be ensured by the equilibrium of dynamic equivalences in a complex system. The system involves the following elements: (1) the quantity of money in circulation, (2) the credit on disposition which reflects the future payments, incomes and profits, (3) the economic actors of the system (production and consumption) and the potential entity of the exchanged goods and services. The purchasing power of money is directly dependent on the equivalence of (1) and (3). At the same time, however, the entity of both sides depends on the economic growth as projected by (2). As the stable relationship between the signifier and the signified, the value of the money sign depends on the relationship between the money signs in circulation and the corresponding available goods and services. If the money is greater in value than the goods and services (for instance, an irresponsible central bank, which prints more money than economic growth), then there is inflation. If there is less money in circulation than services and goods, then this makes it more difficult to pay the debts and reduces economic growth, even though the money sign gains more purchasing power in the short term.

It now becomes evident why money is so important to understand our human reality. Temporality and scarcity constitute both the condition for value and our existential condition. In *Being and Time* (1927), Heidegger puts the *finitude* of our existence (being-towards-death) as the fundamental condition for being of Dasein. In our existence, we thus find ourselves as the being which always has still to be, where there is always a temporally extended project ahead of us, which is at the same time unavoidably limited by the end of our life. It is a scarce temporality (finitude) that defines the

original human condition. The homology with the structure of the money sign makes the latter the major device in transferring the deep levels of our human condition into practical concerns of worldly life. Thus, from this perspective, economic value is more concerned with the integration of our life in a more or less sustainable future, rather than with the concrete labor and needs, which define the state of the economic exchange in each moment.

II. Conclusion

In this paper, I have shown why finances are so important today. The economy has long been a fundamental concern of human existence. For millennia, the money sign was material and inflexible, part of the materiality of the economic activity rather than a system of thinking. But today, the money sign has become exactly this. It is a writing system, responsible for maintaining the social equilibrium. This sign system has made it so easy for thinking and managing that today, regardless of income or level of development, money has introduced the commercial logic deep into the most intimate levels of our existence. Where once religion and politics were the most powerful systems of thought and gave strong existential references, today, money and finances are the main agenda for governance and sociocultural institutions have become subordinated to their logic.

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