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Spring 2020

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Recommended Citation

Payne, James, "Against Monetary Functionalism: a Social Ontology of Money" (2020). *Honors Program Theses*. 124.

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Against Monetary Functionalism: a Social Ontology of Money

JAMES PAYNE

I. Introduction.

Picture the inside of a modern financial institution with all its functions housed in one large office building. Starting from the basement, you'd find large vaults filled with embossed pieces of composite metals next to green-dyed composite paper stacked high and sealed behind large metal doors that permit only limited access. As the work day proceeds, some workers would take the metals and paper out from the basement and deposit them behind desks with specialty windows where they would be entrusted to another worker to hand those pieces of metal and paper to a different set of people on the other side of the window while also occasionally accepting from some of these people nearly identical pieces of metal and paper. In the process, computer servers respond to the coming and going of metal and paper by altering strings of 1's and 0's. On the floor above the windows, rows of computers staffed by well-dressed office workers receive and fulfill requests from other large institutions to change 1's and 0's on both of the institution's servers. One floor above this, people called managers, accountants, and economists all make decisions regarding the sending and receiving of the metals and papers, and the adjustment of 1's and 0's, given the information they receive from these servers. These decisions take the form of corporate rules, policies, and objectives designed to receive more metals and papers than they distribute, and to modify 1's and 0's in such a way that a real number on a desktop monitor goes up rather than down. Finally, these rules, policies, and objectives then trickle down to all the people at the lower levels of the institution, as well as the outsiders coming in to receive and give up metals and papers. The peculiar thing about this

picture is that over the course of the workday no one in the institution needs to consider the conditions that make these diverse physical entities referred to by the same term: “money.”

The question of how various physical objects come to be referred to by one unitary name, “money,” is not a modern one. Around 380 BCE, the Cynic philosopher Diogenes was exiled from his home polis of Sinope. In the *Lives of Eminent Philosophers*, Diogenes Laertius writes that Diogenes, while employed as Sinope’s money changer, received a command from the Oracle of Delphi to “deface the currency” of his city. But the Oracle allegedly confused Diogenes about the object of the command. Laertius states that what the Oracle really meant was that Diogenes was to return home and “change the political customs” of his polis. However, due to his confusion, when he returned to Sinope he shaved the face of the monarch off of the coins in the treasury, thereby rendering them worthless as money.¹ Thus, as a matter of fact, Diogenes “defaced the currency” of Sinope, and as punishment was exiled from Sinope, at which point he sought to fulfill his true aim of undermining political custom.

The command to “deface the currency” has come to be associated with the tradition of the Greek Cynic philosophers’ willingness to call into question the justifiability of the social mores and values of the polis, and by extension the political, legal, and economic structure of ancient Greek society. In so doing, they also call into question the basis for social facts in the polis, especially those relating to social conventions around economic activity. Therefore, the literal interpretation of defacing the currency by Diogenes also suggests the defacing of political custom because it is “political custom” that makes something money.

In what follows, I will demonstrate why Diogenes’ conclusion about the Oracle’s command was in fact a reasonable one to arrive at, while also offering an account of what money

¹ (Laertius 2018)

is, such that the “defaced” pieces of metal were of a fundamentally different character than their embossed counterparts. My account will rely on an inquiry into social ontology in order to ground a robust conception of social facts, and thereby craft a more robust metaphysical picture that does justice to the implicit understanding of both the modern-day financial institution and Diogenes more than 2,000 years ago. To accomplish this, I will first utilize three paradigmatic historical case studies to raise questions regarding our intuitions about what we refer to by the name “money” in order to refine our intuitions and demonstrate the reasonableness of the inquiry, while also revealing that the debate between various positions is not merely a semantic dispute. Secondly, I will refine the inquiry into social ontology to demonstrate what are the contested issues and frequent connotations that occur when discussing social metaphysics. Thirdly, I will recapitulate the argument offered by John Searle as to the ontological character of money and attempt to refine it using insights and tools offered by Brian Epstein. Fourth, I articulate my own view as to a social ontology of money by integrating a notion of iterated sets and insights from the critical realist tradition to best explain the metaphysical relation between money and society. Finally, I’ll refer to oft-cited cases of confusion in questions about what counts as money to illustrate how my account responds to them and the implications for broader social-scientific inquiry from my account.

II. A Preliminary Historical Inquiry into Money

There are two initial problems associated with offering an ontological account of money given the conventional use of the term throughout history. The first is semantic. That is, there is a challenge posed by our modern use of the term “money” as referring to a whole host of different

entities with vastly different properties in vastly disparate societies. For example, in modern, technologically advanced societies, money is referred to when we mention dollar bills, Bitcoin, numbers on my computer screen when I type in my bank account information. In short, the term is often used without much reflection as to what being money truly entails. But this problem is not unique to us.

Indeed, tablets found in ancient Mesopotamia detailing schedules of payments for trade goods and debts suggest a common unit that denominated the transactions. Furthermore, complex agrarian societies across the globe had their own systems for dues payment to some central authority; this also suggests a system of taxation that wouldn't seem excessively distant from our own.² Thus, human history poses itself as a challenge to offering an account of money *qua* money because it forces any account to answer one of two questions: Is the description offered consistent throughout history such that it serves reasonably well in the context of the modern financial institution and the Athenian agora. My view takes the use of the term "money" to be consistent throughout history, and in so doing includes some social entities as "money" that may not conventionally be viewed as such given our modern uses, while also eschewing others that would be viewed as "money" with that same contemporary lens.

The second challenge posed by history is epistemic. It relates to the model one uses to interpret the facts of history. To explain this problem, we might draw a parallel to the issues involved in scientific explanation employed in Thomas Kuhn's *Structure of Scientific Revolutions*. In *Structure of Scientific Revolutions*, Kuhn argues that specific scientific paradigms dominate historical periods and constrain the practices, views, and language employed in science. Thus, when a new paradigm of scientific explanation emerges, as it did

² (Graeber 2011)

during the scientific revolution, the two views of the world are incommensurable with one another and the acceptance of the one view negates the explanatory (and by extension the existence) claims of the old view. This is not a trivial claim in either Kuhn's case or in this inquiry. For Kuhn, claiming that pragmatic historical considerations affect the practice and conclusions of scientific endeavors serves as a reason for doubting scientific realism. For my inquiry into the necessary and sufficient conditions for identifying something as money, we must ask if the model we are using to understand past societies, as well as present society, glosses over a like incommensurability. Indeed, if we think of a modern equivalent to Diogenes' crime, say bleaching US dollars instead of shaving off the faces, we might agree that the money had been altered, but it might not be appropriate to say that the character of the currency was altered in the same way given a potential historical incommensurability between the Bureau of Engraving and Printing and Diogenes' mint.

These questions offer reasons for doubting the efficacy of explaining money in a historically uniform way, but we can look to the historical record itself in order to try to overcome these doubts. As a preface to this record, it is worth considering the limited scope of this brief historical account in two senses, first its tendency to jump from period to period due to interests of brevity, and second its limitation to a European record. The second consideration is potentially contentious, but in the interests of drawing the clearest through line, we ought to compare the most connected situations to one another. Whatever the historical record reveals, standards of currency, debt, and finance have become ubiquitous due to the legacy of European hegemony around the world and the economic practices that developed there during the European Enlightenment. Thus, while different social organizations might have historically come

to different conclusions about what constitutes “money,”³ the reality that I am tracing has its roots in the historical legacy of, and imposed by, the West.

a. Mesopotamia.

To return to the historical record, I will explicate three periods that have long been interpreted in various ways in the history of economic thought. Indeed, these historical examples have become academically contentious due to debate between non-Marxists and their opponents, each believing the historical record to be a validation of their divergent notions of the origins and nature of economic activity. I will leave these concerns aside and offer a historical account of economic activity in ancient Mesopotamia, medieval Europe, and finally the modern Western nation state after the Great Depression. These entirely arbitrary bookends are meant to demonstrate in practical terms my position on money’s ontology and why we ought to consider the historical record prior to an analysis of contemporary models of social facts.

In ancient Mesopotamia, as today, a host of exchanges occurred that were ensconced in social practice and law. Dowries, merchant exchanges, payments, obligations, charity, trade among sovereign political entities, and indeed chattel slavery were all features of the ancient economy. These exchanges were conducted in various physical mediums including foodstuffs, cattle, human beings, land, commodities like silver, and objects as mundane as broken pieces of wood. Furthermore, we are also aware of the development of contracts and schedules of payment, as well as formal tax obligations placed on citizens indicating an advanced and hierarchical economic structure.⁴ The fact is, however, that things we (and Diogenes) would

³ The quotes here are to indicate that the use of the term “money” in divergent social organizations often comes about by virtue of an epistemic overzealousness on the part of the Western observer, as it is skepticism on the author’s part about the applicability of the term in those divergent systems.

⁴ (Powell 1996)

recognize as money don't begin to appear until around 3500 B.C.E., and they were pieces of silver apparently denominated in terms of the amount of barley given to a temple worker. These silver representations of barley then became something by which prices were measured and other obligations denominated.⁵ Taxes, on the other hand, were not denominated in these bits of silver. They were in-kind and included commodities like beer, barley, and labor.

For the brief sketch of ancient economy presented here my belief is that it was the basic agricultural product, barley, that constituted money in ancient Mesopotamia. The reason is simple and relates to an important feature of money, its determination as a method of payment by sovereign political authorities for political obligations. This is further compounded by the fact that, as a staple crop, barley served the ancient Mesopotamians as the source for the other kinds of obligations mentioned. It was the chief component in alcohol and gave the caloric energy necessary for the conduct of labor (whether by freemen or slaves, most often slaves).⁶ Thus, this provides the best historical case of "commodity money." The commodity was designated "money" by virtue of a feature about it - its value for human civilization - and then a sovereign political authority affirmed it as a form of social glue, and the priestly classes constructed what might be referred to as a primitive debt instrument on that basis.

The debt, in this case the coin, ought not be seen as money in spite of traditional attributions of money as a non-perishable, non-intrinsically valuable, and transferable token. This is not to say it was not useful, certainly it was, and it might even have fulfilled the role of overcoming, in a limited sense, the challenges posed by barter. Nevertheless, this interpretation seems to misunderstand the fundamentality of barley in ancient Mesopotamia: Famines, wars, and other uncertainties could be mitigated and planned for with a commodity like barley. Silver

⁵ (Graeber 2011)

⁶ (Powell 1996)

would not be able to do the same. In short, a commodity like barley was deeply embedded in the whole Mesopotamian social system in a variety of ways that silver and even slaves were not.⁷

b. Medieval Europe.

This leads to the second historical example, medieval Europe. Since the fall of the Roman empire and the demise of its standard unit of exchange enforced through Rome's legions, a host of local commodities functioned for various fiefs and kingdoms as tools of exchange among traders.⁸ Standard forms of exchange that would have been recognizable to the Mesopotamian were also standard practice in medieval Europe. Indeed, the feudal system of taxation did not involve exchanges of money. From the level of the peasant-lord relation to the lord-king relation, the primary means of conferring political obligation was labor. Importantly, the labor was disconnected from the human subjects; when the king demanded soldiers from his vassals to repel invaders, with few exceptions the king did not have an unlimited right to dispose of the serfs however he liked, and was guided by standards of law and the rights of lords in restraining his actions towards serfs.⁹ Even at the level of serf-lord relations, the obligation was the labor of the serfs to work for the lord's personal properties. Thus, the picture presented by the image of the Sheriff of Nottingham demanding payment in coin is historically inaccurate, though it does touch on the important role financial concerns of kings and lords played on policy toward serfs and the church.¹⁰ In fact, during the period most gold and silver was held by the church in monetary and non-monetary forms and was rarely in circulation.¹¹

⁷ This position is neither Marxian nor traditionally one articulated by liberal economists.

⁸ (Goffart 2008)

⁹ Indeed, the staple of English democracy, the Magna Carta, was dominated by the concerns of the nobility over the conduct and control of their serfs.

¹⁰ *Ibid*

¹¹ (Graeber 2011)

Oftentimes, accounts of monetary phenomena in the medieval period focus on the role of lending by merchants and nascent bankers (usually talking about the role of the Jewish community in that process, an unfortunate bit of historiography considering most lending was in fact done by the Catholic church) in transitioning economies away from precious metals as mediums of exchange and towards paper bank notes, with the metal being located in banks in major cities like Paris, Antwerp, Venice, or Hamburg. While there was a rise in paper certificates and contracts in the late medieval period, and it did indeed change hands and facilitate exchange, these largely occurred at the fringes of economic exchanges.¹² That is, they were the exception not the norm of economic activity in medieval Europe.

Even enterprising proto-capitalists like the Knights Templar tended to hoard their precious metal valuables in their estates. When they lent to kings, the lending was not done out of political obligation, it was done for a return. But when the Frankish kings had enough of the Templars hoarding, they called up their vassals and simply seized these hoarded valuables and cancelled their own debts.¹³

A common theme in both Europe and Mesopotamia is that those things we use to tell the historical story about money were indeed largely disconnected from the web of social relations that bound these societies together. Money and economic transactions utilizing it didn't anchor social relations, rather royal and ecclesiastical authority did, with the peasant serfs and urban burghers being almost equally subjected to it. Thus, in my thinking, that unit that could be appropriately referred to by the name "money" in the Middle Ages was labor, either in the fields of lords or on the battlefields of kings or in the abbeys of the church. This is an unconventional view, but it best captures the core idea that money ought to be thought of as a deeply embedded

¹² *Ibid*

¹³ *Ibid*

part of a society's ability to reproduce itself. It was not a natural historical process of voluntary adoption that brought bullion the ubiquity the history books tend to ascribe to it in the modern period, rather the foundations of feudal society that enshrined the centrality of labor as the money unit had to be abolished in exchange for another unit. Hence the violence of movements like enclosure in England, the Fronde in France, and the Peasants' War in Germany, all of which resulted in the bullion unit to predominate over the labor unit.^{14 15}

c. Modernity.

Moving into the twentieth century, much of the relevant legacy of the medieval period had gone away by virtue of industrialization and imperialism. The economic arguments of the day turned to the centrality of monetary policy, or the regulation of the money supply. In the early years of the century, a kind of dogmatism about the virtue of bullion abounded. Where there was dispute, the dispute was between advocates of different bullion approaches, exclusively gold or gold and silver.¹⁶ Certainly paper money was in circulation, but that paper was itself backed by some kind of bullion held in reserves, with the paper notes printed in some ratio of those reserves. The basis of the notes was that they were (barring certain legal limitations) redeemable for some quantity of bullion. They were a kind of IOU where the expectation was that they would never be redeemed for their equivalent value. That changed after World War One, the Great Depression, and later World War Two. It is important to note that countries like the United States did not abolish a bullion standard until the late twentieth century and the trend in the middle of the century was a relaxing of the stringency of the

¹⁴ *Ibid*

¹⁵ (Polanyi 1944)

¹⁶ (Keynes, *A Treatise on Money* 1930)

redemption base or ratio of bullion reserves to paper currency. Where a dollar note fetched some value of gold in the early part of the century, a dollar note was redeemable for less in the middle of the century.

This presents a peculiar case for purposes of analysis, more so than is given credit in the literature on the subject, and more so than what can be offered here. This stems from the difficulty of drawing a line between where bullion ended and where sovereign currency began. Here, I take what is a relatively conventional view, that both sovereign currency and notes were the money of the day. The point that must be made clear then is that if embeddedness in a political system is a criterion for something being money, then surely if labor was money in the medieval period on that account, it ought to also be conceived that way in the twentieth century. However, the demarcation I am drawing is one of sovereign obligations. Barley, peasant labor, and gold all ought to be considered money at different times because all three were determined by sovereign political entities to be the basis for the continuation of those entities. The question of the real necessity of gold for the continuation of 20th century economies can be debated, but its centrality due to the expansion of state power, international trade, haute finance, and wage relationships cannot be. Thus, when discussing money, we are not referring to a historically uniform phenomenon, but one that is contingent on a host of historically contingent social relations. This also explains why in discussing money's ontology and its conditions for existence, history plays a crucial but not wholly constitutive role in the analysis.

I earlier alluded to Thomas Kuhn's models of scientific paradigms, and I think this is the proper way of conceiving of philosophical models of social facts. Mesopotamia, medieval Europe, and 20th century industrial nations all represent vastly different paradigms of social explanation, but we can utilize stable concepts like money to properly understand those societies

even though the properties and basis of the concept differ. By analogy, we still refer to 19th century explanations of disease as referring to disease despite foundational differences in what that term referred to. In this way, our models partially embrace pragmatic definition, and this ought to be regarded as an explanatory virtue because it contributes to undermining aforementioned skepticism about an inquiry into social facts by giving needed weight to our experience of the social world.

The two broad models of explanation presented below both offer different explanations for the existence of social phenomena, and money in particular, but they ought not be thought of as competing paradigms in the way ancient Mesopotamia and medieval Europe were different paradigms; in fact, the closest parallel can be seen in the ontological disputes between Carnapeans and Quineans where the paradigms hold distinct criteria for existence questions.¹⁷¹⁸ There is not a clear model of historical progression of models of social metaphysics because history presents itself as a non-teleological progression. Thus, the way models of explanation extend to history are weighty in acceptance or rejection of a model's ontological conclusions.

III. Clearing the Ground: what is at issue, and what is not

a. John Locke.

In the words of English political philosopher and mercantile theorist, John Locke, “it is ambition enough to be employed as an under-labourer[sic] in clearing the ground a little, and removing some of the rubbish that lies in the way to knowledge.”¹⁹ It is in the spirit of this pursuit that we must first clear away some of the confusion that abounds about money that comes

¹⁷ (Manley 2009)

¹⁸ This historical analogy is meant to be just that, an analogy, although elements of this same debate pervade debates in social ontology.

¹⁹ (Locke, *An Essay Concerning Human Understanding* 1975)

from Locke himself. It is important to begin with this line of inquiry for two reasons First, much of our modern discourse about the idea of money owes its historical origins to Locke, and, secondly, Locke's position can demonstrate why our answer to the ontological question bears on inquiry into the social sciences and where thinkers tend to go awry.

The fundamental problem with Locke's analysis is that he confuses the conditions for money's existence and the source of its value. Locke commits this confusion in his *Second Treatise* by stringing together several core concepts to derive his notion of the emergence of money. The picture starts with his theory of value, which he explains in para. 40, namely that "it is *labour* that *puts the difference of value* on every thing...consider what the difference is between...land planted with tobacco or sugar...and an acre of the same land lying in common...he will find that the improvement of *labour makes* the far greater part of the value (original italics)."20

Part of the confusion here turns on an ambiguity about the way Locke uses the word "value" to describe both what was added by the laborer, or the *difference of value*; and how we interpret the worth of the land or commodity in question after labour has been added, or the *denomination of value*. Notice in the first case, there is no need for a social unit to denominate the meaning of value; the laborer planted, sowed, harvested, etc., and none of that activity *requires* a numerical interpretation. Even if one was to say that the laborer harvested X bushels of Y, that tells us what the result of the labor was, it is the difference between what was produced and what would not have been produced without that labor. Indeed, Locke uses this way of conceiving of value to justify colonial encroachment into North America by the English colonists when he writes, "[the] several nations of the Americans...who are rich in land, and poor in all

²⁰ (Locke, *Second Treatise of Government* 1980)

comforts of life...[have] fruitful soil, apt to produce in abundance, what might serve for food, raiment, and delight; yet for want of improving it by labour, have not one hundredth of the conveniencies we enjoy...”²¹

On the other hand, if we are to understand value in the second sense we ought to take note of “the far greater part of the value,” which suggests that what was contributed in value terms exists on some represented continuum, i.e. numerically. The difference between this and the first case is that in the first case the value is equivalent to the end result, my labor is worth X bushels and we are talking in terms of bushels; whereas in the second case we are referring squarely to the value of the land.

We might try to resolve this ambiguity by claiming the land may be denominated in terms of how many bushels *it* produces. But this does not move the answer forward because this suggests either that the properties of the land are wholly constitutive of how many bushels are produced on it, or that value is being understood as a combination of the properties of labor and land taken together. I think this second interpretation is a more accurate reading of Locke because as he explains in the same paragraph that, “what in them is purely owing to nature, and what to labour,...we shall find, that in most of them ninety-nine hundredths are wholly to be put on the account of labor.”²² This implies that the representation of value cannot be thought of exclusively in terms of labor (the number of bushels reaped), or in terms of the land (the bushels produced on the land). The obvious solution Locke comes to is value denominated in money terms which thereby splits the difference between the value contributions of the laborer and nature and thereby makes the money form of value a function of the laborer’s contribution.

²¹ *Ibid*

²² *Ibid*

Locke concludes from this analysis that the specific use commodity money²³ comes about for two pragmatic reasons, first that it has the physical property of “not spoiling,” and second that it promoted the ability of people of “different degrees of industry” to “enlarge his possessions...without injury to any one.”²⁴ Combining these two features, the value of the laborer’s contribution and the physical properties of commodity money the pre-legal community consents to the use of particular tokens “by tacit and voluntary consent.”²⁵ Thus, the origin of money and the metaphysical conditions for its existence depend, at least in part, on the value of labor imbued in it.

The metaphysical problem with utilizing a theory of value as a ground for existence can be explained via example. Picture an open market like the agora of Athens or the square of London in the 18th century where every producer of a good sells directly to the end-users.²⁶ In the market, goods will be exchanged for currency tokens where sellers will ask for a price and buyers will purchase at a price that they feel comfortable with. The problem of transformation comes about when the price charged for some good is denominated in some amount of a token, but the labor that was put into the product was denominated in terms of labor physical work done. The relation between the laborer’s value and the price the merchant sells the commodity for appears unclear and is especially complicated when the good ends up being purchased for a price lower than desired by the producer/seller. In other words, the supposedly objective value of labor ends up being converted to a subjective market value determined by the relation of the set of buyers and producers/sellers in the market. What is peculiar about Locke’s position is that he

²³ The term is idiosyncratic to Locke but the term is applicable. It refers to goods like gold, silver, and diamonds specifically referred to by Locke in para. 46 of his *Second Treatise*.

²⁴ (Locke, *Second Treatise of Government* 1980)

²⁵ *Ibid*

²⁶ Indeed, this picture of free market exchanges is the one envisioned by the central figure of Classical Political Economy, Adam Smith in his 1776 book, *The Wealth of Nations*.

includes the idea of “implicit consent” in his analysis of what grounds money’s existence. Thus, this classic case implies for Locke that money either has some unknown property of capturing and maintaining the value of labor put into it,²⁷ in which case an explanation is left wanting; or money’s value is left to “consent” and exchange, in which case he hasn’t justified its conditions for existence, he’s only presupposed its existence.

Taken more broadly, the implication of this analysis is that the question of money’s value is distinct from the facts that must obtain for its existence. To put it in another way, if I adhere to an exchange theory of value, money, whether gold or fiat, is valuable insofar as it can be approximated to the intersection of money supply, and demand for money.²⁸ Yet I could also adhere to a labor theory of value and come to the same conclusion about gold being money (as Locke did), and I could, with more complex reasoning, conclude that fiat money is also money. In short, there is no necessary connection between a theory of value and a particular theory for the existence of money and this confusion comes about in large part due to a Lockean inheritance that can trace its way from Locke to Smith, Smith to Ricardo, Ricardo to Marshall, and Marshall to Samuelson.

Given the centrality of money in explaining economic phenomena, every introductory economics textbook explains that the set of conditions that classify something as money are three-fold. First, it is a means of exchange, meaning that it can be used in order to purchase goods and services. Second, it is a store of value.²⁹ In other words, my dollar today will be able to buy approximately the same amount of goods and services as it will tomorrow. Third, it is a unit of account, I can utilize it as a means of evaluating prices of labor, land, capital, and account

²⁷ Indeed, this is exactly what Karl Marx tried to resolve with his Labor Theory of Value, but ultimately failed to accomplish.

²⁸ (Mankiw 1997)

²⁹ The meaning of value here is in terms of exchange value, this is assumed at the outset in orthodox economics.

for profits and losses, appreciation and depreciation, all on the same level. It is also often the case in economics textbooks that an accompanying statement will relate the idea that money's use as a means of exchange is prior, or more important, or more fundamental, than its other two primary uses.³⁰ This is illustrative because it invokes an explicit notion of ontological fundamentality; while money might exhibit other properties, such as stores of value or that of being a unit of account, what makes something money is that it is a medium of exchange that overcomes the problem of the "double coincidence of wants." Put simply, when two people lack a medium of exchange to acquire goods and services, they must resort to in-person trading of two goods. The history of this view owes its most definitive explanation to Adam Smith in his famous fifth chapter of *The Wealth of Nations*, but as with most ideas in classical political economy, the story began with Locke.³¹

One substantial initial problem occurs with this definition that warrant a closer examination. The first is that it defines the conditions for something being classified as money by its uses. Yet, what about the usability of the coinage of Sinope was altered by Diogenes? Why was he sentenced to one of the greatest punishments possible in ancient Greece for shaving off a face and tangibly altering the physical characteristics of the money? While it is common to discuss artifacts like money in terms of their uses, money is not a normal kind of artifact. Artifacts like tables might be able to be explained sufficiently via appeals to use³² but in the case of social artifacts like money and contracts, functional definitions obscure a broader social picture about the determinants of those uses.

³⁰ (Graeber 2011)

³¹ (Hollander 1911)

³² Indeed, even the seemingly simple case of tables is contested.

c. Modern Economists.

Economists like Paul Krugman, Robert Reich, Jo Stiglitz, and Tony Lawson have noted that this failure to answer the ontological question for economic phenomena, beyond simply money, has had a profoundly negative impact on the economics profession. In fact, Krugman argues that part of the blame for the inability of the profession to predict the financial crisis of 2008 and its aftermath rests with negligence about this line of inquiry.³³ The trouble for the economist is that the answer to the question of money's ontology opens the door to revisions of core economic models that presuppose money's existence but do not model the features necessary to talk soundly about those conditions for existence. This is made more problematic by the reliance in economics on explanations and language couched in terms of physics. We utilize terms like "velocity of money," "natural rate of unemployment," "steady states," "stable prices," "frictional unemployment," and many others in order to explain social phenomenon using terms founded in the natural sciences. Whether these metaphors are in fact justified is a topic for another inquiry, but the meaningfulness of the comparison between physics and social sciences like economics will hinge, in large part, on whether they are analogous at the level of ontology.

Nevertheless, Diogenes' confusion at the Oracle's command is understandable. As the three historical cases indicate, it is not always the obvious token that frequently changes hands that is money. Indeed, we know that currency and the political customs of societies are constantly conjoined throughout Western history.³⁴ Diogenes' view and Locke's view cash out in different ways but they come from the same explanatory paradigm with reference to money. Diogenes made a tacit distinction between political custom and currency and Locke made an explicit distinction between political custom and currency. No sovereign need exist for money to

³³ (Krugman 2008)

³⁴ (Graeber 2011)

exist in Locke's world, the only core condition is what economist and anthropologist Walter C. Neale referred to as, "hardworking middle class savages."³⁵

IV. Theories of Social Ontology and Clarifying the Debate

In differentiating one piece of the natural world from another, despite shared physical properties, we invoke a notion of social ontology as distinct from a natural ontology.³⁶ Social ontology is "the study of the nature and properties of the social world. It is concerned with analyzing the various entities in the world that arise from social interaction."³⁷ Given the centrality of money in our social life, there is a tendency to collapse important and seemingly related questions into an account of how money emerges as a social fact. Foremost among these are confusions of ontology with theories of value.

Historical and anthropological explanations, while also connected and potentially useful in giving an account of the facts that must obtain for money, remain outside the purview of social ontology in a strict sense. The confusion here is prompted by confusion over the meaning of the basic question, "Why does X exist?" "Why" might refer to a causal historical pattern, as in the question, "Why did gold and silver become the dominant form of currency in post-Renaissance Europe?" To which one may respond, "Because vast quantities of gold and silver were discovered in the Americas and carried over by Spain." However, the question of social ontology is distinct in that it asks what mechanisms and social interactions gave rise to the use of gold and

³⁵ (Neale 1982)

³⁶ This distinction remains contentious. For purposes here, all perspectives agree on the meaningfulness of the distinction.

³⁷ (Epstein, Social Ontology 2018)

silver as Europe's dominant currency, and furthermore, it seeks to resolve what the metaphysical conditions are for money are independently of a particular historical process.

The inquiry into social ontology has profound implications for the social-scientific disciplines like sociology, political science, and most important, given the inquiry into the ontology of money, economics. The question of what constitutes a social fact and the relations that obtain for the existence of social facts would affect the orientation and conclusions that could be derived from the sort of models these disciplines have created. For example, the classic IS-LM diagram that stands at the heart of macroeconomic theory uses social categories like households, firms, governments, and money to represent the macroeconomy, taking these social groups to be a properly basic characteristic of the economy.

In the conflict over the social ontology of money, there has been fruitful debate between the many varieties of ontological individualism, as well as with the group of Critical Social Realists. The ontological individualists offer a notion of social facts that are products of individual facts, be those interactions and relations, psychological states, or even proximity and engagement with natural parts of the world.³⁸ The paradigmatic portrayal of the ontological individualist's position comes from John Searle and his seminal work, *The Construction of Social Reality* (1995); Searle's account establishes that institutional facts are the product of collective acceptance of constitutive rules of the form "X counts as Y in C."³⁹ Thus, a green piece of paper counts as money in the context of having been printed by the Bureau of Engraving and Printing. While this interpretation of individualism is common in the literature, more recent work by Raimo Tuomela has focused on the role that status assignments have in the existence of

³⁸ (Searle 1995)

³⁹ *Ibid*

groups and has thereby advanced the “psychologist” principles articulated by Searle for the constitution of social facts.⁴⁰

To be sure, this is but one view that is somewhat characteristic of the ontological individualists’ views. As ontological individualists such as John Searle offer an ontological account constructed out of collective intentions and mutual behaviors that create a set of institutional facts such as, “This piece of paper is a \$20 bill.” In other words, social facts are dependent on facts about individuals and this set of facts takes ontological priority over social facts. Many ontological individualists accept the claim that we can’t at present reduce social facts to facts about individuals through a scientific account, but that there is no a priori reason why we can’t, and in fact we have reason to accept this reducibility given the way we conduct social science research.⁴¹ Clearly, this leads to ontological individualism being a popular thesis in social sciences like economics and modern forms of Liberal political theory that draw their genealogy from Enlightenment social contract theory. Part of the strong appeal of the position relies upon the closely related and often conflated thesis of methodological individualism.

Methodological individualism is a position in the social sciences that holds “there is no other way toward an understanding of social phenomena but through our understanding of individual actions directed toward other people and guided by their expected behavior.”⁴² The confusion, as Epstein points out, is that this principle of social scientific method is often taken as

⁴⁰ (Raimo Tuomela 2013)

⁴¹ This is a Quinean move most often made, not by philosophers, but by economists.

⁴² (Hayek 1948)

evidence for a stronger thesis that social phenomena supervene⁴³ over the physical phenomena of individuals.⁴⁴

However, the methodological claim is distinct from the claim about ontology. For an extreme example, I can hold that social facts are exhaustively determined by a Hegelian *Weltgeist*, while also utilizing methodological individualism to try to gain knowledge about said *Weltgeist*. This example demonstrates that social scientific methodology, while it ought to be utilized in light of a coherent account of social ontology, is in principle independent from any strict ontological relation.

In like fashion, the methodological/ontological individualist claims to have a more consistently physicalist/naturalist account of the world. It is argued that, like physicists, we ought to try to understand the social world in terms of its most elementary parts that compose the macro entities we observe. This parallel between physics and social ontology is important in characterizing the reduction of some ontological individualists like Searle, because from an understanding of social facts as embodied in individuals, we can then offer a physical account of human beings that utilizes our best theories of physics. But as Kincaid (1986) and Haslanger (2017) argue, we ought to be cautious in the process of reduction lest we illicitly integrate premises about the mind-independent physical world in the process of explaining the social; and thereby violate the ontological basis assumed at the outset.

To demonstrate this point let us return to the physicist: If it was discovered that the physical arrangement of atoms in some macro form, say as a table, caused the atoms themselves to move/change/exhibit new properties in ways in which the same can't be said when the atoms

⁴³ We take the meaning of supervenience here in the philosophical sense, that there cannot be an A-difference without a B-difference. Thus, the ontological individualist thesis is logically equivalent to, "there cannot be a difference in the social without there being a difference in the individual."

⁴⁴ (Epstein, *Ontological Individualism Reconsidered* 2007)

aren't tables, we would have reason to believe that the fact of being a table doesn't reduce down to atomic constituents neatly. The same is true when it comes to the social ontologist. If they find that individuals are changed, or exhibit new properties, by virtue of being in a social arrangement, say as members of a corporation or a money-based economy, we would have additional reasons for rejecting the claim that social facts neatly reduce to facts about individuals for the same reason as given in the table example: the fact of exhibiting a macro property itself effects the micro properties. Furthermore, if Diogenes were to ask, "What is the ontological nature of gold?" the physicist would respond that it is metaphysically dependent upon the arrangement of protons, neutrons, and electrons. Much like the question of what political custom is would be answered in terms of individual people.

Holists of social ontology, on the other hand, are principally defined by their rejection of the ontological individualist's position about the reducibility of social facts and the relative importance of individuals in constituting determining those facts, and therefore form a mixed bag of beliefs about social facts that are not wholly inclusive of one another. This makes taxonomizing the position more extensive than our purposes here require. Instead, a brief architecture of these holists' arguments will suffice. In general, holists accept the reality of sets like groups, institutions, and culture in a way distinct from individualists. Recall, individualists might accept categorizations in these terms as metaphors, useful fictions, or conventional ascriptions, but state that they don't hold any ontological basis as existing *qua* group, etc.⁴⁵ Holists need not believe that all ascriptions of groups are meaningful. For example, holists may disagree about the reality of racial categorizations, or of instances of cultural communities;

⁴⁵ (Effingham 2010)

rather, this description is used to point out the distinction between the implications of the positions' views on ontology.

In large part, the holists express their core conviction in terms of the whole being greater than the sum of its parts, that relations between intentional entities like humans create irreducible and meaningful properties distinct from individual properties. For example, Althusser (1965) interprets Karl Marx as a holist with respect to social ontology due to the determination of social facts on the economic mode of production in a society.

When it comes to defining money, these two positions will come to vastly different conclusions, and thus attempting to resolve the issue ought to understand the fundamentals entailed within them. Herein, I will offer my views on the individualism-holism debate as typified in positions I see as characteristic of the debate, while asking its implications for two distinct but interrelated inquiries; a specific inquiry into money itself, and a more general inquiry into the proper way of conceiving of social facts.

V. Searle and the Humean Legacy.

In explicating the paradigmatic views of those theorists considered ontological individualists, it is worth going back to David Hume's *Enquiry Concerning Human Understanding*. Therein, Hume explains that causal relations don't describe the world *as such*, rather they describe the world of human experience. This has an important impact when it comes to his own early notion of social ontology,⁴⁶ which has come to be associated with conventionalism.⁴⁷ For Hume, social facts are explainable as conventions that have come to be

⁴⁶ A term Hume would most certainly scoff at.

⁴⁷ (Epstein, *The Ant Trap* 2016)

adopted by some set of the population. For example, the rule of promise-keeping can be thought of in terms of social convention. An utterance such as, “I promise to X,” creates an obligation by virtue of the action and a corresponding expectation in the listener that X will be carried out by the promisor. But the expectation that creates the obligation is itself based in a set of longstanding social practices that Hume argued “tends to the public utility.”⁴⁸ Thus, it would be adventitious for Hume to say that the utterance *caused* a promise to be created, rather than that the promise was borne out of a theoretical orientation toward the world that created the conditions for a promise to exist. Given this view, defacing the currency looks much more like an act of undermining political custom.

While postulating Hume’s position in contemporary debates about social ontology is tendentious, the influence of this line of thinking on the individualists’ views is undeniable. For reference, let’s return to Searle’s formulation of institutional facts, “X counts as Y in C.” In addition to eschewing causal notions, this formulation is reminiscent of the Humean theory in terms of its roots in a speech act. Coming from the Ordinary Language School⁴⁹, a speech act or illocutionary act is “the production of the sentence *token* under certain conditions is the illocutionary act, and the illocutionary act is the minimal unit of linguistic communication (emphasis added).”⁵⁰ The fundamental feature of a speech act is that it conveys meaning and intentionality following the rules of the *type*.

But conveying meaning with linguistic acts does not explain where social facts come from, it merely demonstrates how new ones might be created. In the introduction, I alluded to John Searle as a modern paradigm of the position known as the standard model. I will explain

⁴⁸ *Ibid*

⁴⁹ Of which Searle’s mentor and explicit inspiration, J.L. Austin, was a founding member.

⁵⁰ (Searle 1965)

this using the language Searle brought to the study of social facts, institutions, and money.

Searle's 1995 *The Construction of Social Reality* is illustrative in that it takes concepts borrowed from debates in philosophy of mind, philosophy of science, and epistemology and brings them to bear on the issue of the reality of social facts. What makes Searle paradigmatic is his notion of social facts being metaphysically distinct from individual facts but dependent upon individual facts such that the social (or in the case of money, the institutional) can be discussed in objective terms. Indeed, this objectivity that Searle uses to discuss social facts is one of the chief merits and advances that he brings to the issue.

Individual facts are those features of Diogenes that do not require others for their existence. In Searle's terms, individual facts account for "brute facts" about the natural world of which we are a part.⁵¹ My hair color, physical strength, and mental content produced according to neuroscientific laws are all brute facts about nature. While these things might be expressed in terms of propositions, Searle rejects the idea that *facts qua facts* are socially constructed. Rather, these brute facts serve as the basis for social facts.⁵² In the first sense, this is because a brute fact about humans, intentionality, is what is the basis for the class of objective and subjective social facts. As Searle says, "intentionality is that property of the mind by which it is directed at objects and states of affairs in the world."⁵³ This individual property forms the basis for Searle's innovation and deviation from the likes of Austen, Hart, and Hume. From directed mental activity, humans can attribute functions to features of the world. An elevated lateral piece of wood can now function as a bench, and inserting a piece of paper into a machine can function as casting a ballot, but this requires more sophisticated tools.

⁵¹ (Searle, *What is an Institution?* 2005)

⁵² Indeed, closely associated positions of Searle's that bear on this debate are his correspondence theories of truth, and his "external realism" explained in Searle 1995.

⁵³ (Searle, *The Social Construction of Reality* 1995)

The second step in Searle's analysis of social facts is the clear distinction he draws between individual intentionality and collective intentionality. Individual intentionality is expressed in "I" terms, I desire, I will, I like.⁵⁴ This kind of intentionality is important for one's existence as an agent, and its existence is presented as uncontroversial; the more controversial cases that Searle offers are so called "we-intentions."⁵⁵ We-intentions serve as Searle's method for severing the gordian knot of the infinite regress of I-intentions that have historically troubled the likes of Hume, Austen, and Hart. A we-intention is a so called basic or "primitive" phenomenon where "I intend only as part of our intending."⁵⁶ Thus, voting, playing in an orchestra, a heated argument, and even war are examples of we-intentions. These primitive natural phenomena (we-intentions) then become a collective intention that is referred to by the name of "social fact." Thus, we can express Searle's position on the source of social facts as:

X is a social fact iff X refers to a collective intention.

This explains why I described Searle's notion of social facts as "psychologist" in the introduction. For a proposition about social facts to be true, it must refer to some true psychological fact about human beings. This implies that in adjudicating a conflict over a question of social fact, we could plausibly look into the brains of the members of a group claiming to maintain some social fact, and if the intention was held by all the members in the form X, then X would be the social fact. This is also why Searle's account can be plausibly described as individualist, because the truth of the social fact will be determined at the level of individuals.⁵⁷ An additional implication of this criterion for being a social fact is that social facts are created synchronically; this means that if at *t* some set of collective intentions changes, so

⁵⁴ *Ibid*

⁵⁵ *Ibid*

⁵⁶ *Ibid*

⁵⁷ As should be clear, I venture to make a stronger claim of Searle's position, that it *is* individualist.

too will there be a change in the set of social facts. This feature of Searle's model will become important in distinguishing it from other models that see flaws with a reliance on collective intentions to explain social facts. One initial difficulty with this picture is that it depicts a monism about the social world that makes causality a one-way relation from the individuals espousing (explicitly or implicitly) a collective intention to those things regarded as social facts. This limits the

With respect to the status of facts like those about money, they form a special subset of social facts known as institutional facts. These are those facts introduced with the form X counts as Y in C where X is a physical entity, say a green piece of paper, Y is a status or property of X that X does not have by virtue of its physical constituency, and C is a particular context or background, such as having been printed by the bureau of engraving and printing, that situates the status in a particular community (community used in a loose sense).⁵⁸ Institutional facts are distinguished from the general set of social facts by their formal symbolic characteristics that confer rights and duties. In other words, a dollar has a status such that it confers a power on the holder that is created by "status functions," whereas the social practice of shaking hands to confer respect does not invoke a power or create a new one.⁵⁹ Hence, the core distinction between social facts and institutional facts can be thought of as bottoming out in powers *wholly distinct* from the physical constituency of the material to which the status function is conjoined. Thus, facts about money count as institutional facts that carry with them a status that confers upon the holder the ability to buy and sell, pay debts, and compare values independent of the money being gold, silver, or paper.

⁵⁸ (Searle, What is an Institution? 2005)

⁵⁹ *Ibid*

All this now enables a concise account of Searle's view on the ontological status of money. Money is an institutional fact that can be represented numerically, and that carries powers recognized in a community such that it may be transferred between agents for the purpose of exchanging goods and services and fulfilling obligations.⁶⁰ This account is powerful and has become a dominant view for two important reasons. First, it can explain historical change in what we regard as money by appealing to different institutional arrangements. There was a gold standard, and then that was replaced by fiat money by changing the background conditions, such that some entity like the US treasury no longer redeemed bills printed by the Bureau of Engraving and Printing for a comparable amount of gold. Second, it is consonant with the aforementioned historical perspective on the origination of money as entailing an overcoming of barter. Indeed, consistent with this, Searle makes the claim that to classify an entity as money, the entity in question must not be valuable for its own sake. Both of these claims however are suspect given how Searle justifies them and I will demonstrate that in the next section.

VI. The Problem: Searle and the Model of Explanation

One immediate challenge of Searle's position, and indeed about positions regarding social ontology generally, can be seen by asking the question Socrates asked Euthyphro 2,500 years ago. Is money (and are social facts) what it is (a social fact) because we accept it as money (as a social fact), or do we accept it as money (as a social fact) because of what it is (a social fact)? When recapitulated, we can ask of the position two questions:

- a. Does X's existence follow from Y?

⁶⁰ (Searle, Money: Ontology and Deception 2017)

b. Does X's existence lead to Y?⁶¹

Where X can be substituted for money and Y can be substituted for collective acceptance/intentionality.

We can see a related question in our earlier analysis of Locke's theory of the origin of commodity money. There I referred to pragmatic concerns that led to Locke accepting commodity money as the unit by which labor would be denominated such as non-spoilage and transferability. The argument against Searle's functionalist explanation of monetary ontology also stands as an argument against the pragmatic concerns that appeared in Locke's theory and this shows the long-term pervasiveness of his explanation into the nature of money.

The reason this stands as a problem for Searle is the tension created by his psychologist construction to anchor social facts. This model introduces one methodological dilemma and one theoretical dilemma, with the two being closely conjoined with one another.

The methodological problem can be seen through the seemingly enormous evidence on the existence of money in our social world. Searle explains as much in his account when he says that to understand what money is, "you must understand a whole civilization."⁶² The issue this poses is that we are left with a fact about our social world that seems indubitable, and so the task is to construct a model that reflects that fact's ontological status. This is the methodological form of question b posed above and applies the problem to Searle's account because he makes clear that money must have several key physical features in order for it to be money. A small subset of the ones he explicitly notes are transferability, non-perishability, and countability (or being

⁶¹ An alternative formulation is, does X cause Y, or does Y cause X. Causal notions are excluded here for purposes of making clear the distinction between ontological relations and causal ones. I believe this is also consistent given Searle's recalcitrance regarding utilizing causal mechanisms in his account of social ontology.

⁶² (Searle, Money: Ontology and Deception 2017)

digital and not analog).⁶³ Thus, there are properties of money that exist such that we accept it as money. Searle defends this point by going back to the Robinson Crusoe account of the beginning of money's use, "[t]he point is not that the story is historically accurate. Presumably it is not, but it illustrates the logical relations."⁶⁴

These logical relations are ones of a historical story Searle begins with gold and silver being too cumbersome to carry, and this creates stationary banks and lending institutions that use paper backed by gold and silver, and then eventually the modern world comes into being and we are able to "forget" about the gold and silver and just use the paper. As demonstrated earlier, Searle is in fact wrong about this historical story, but nevertheless utilizes it to make his case about logical relations. This should make even more clear that, in the same way Euthyphro assumed the existence of piety, Searle has assumed the existence of money in its current form and built a story to explain it.

This would not necessarily be a problem for Searle if his theory entailed that money is a universally extant phenomenon for humans and somehow necessarily tied to all forms of human sociability. This would imply that our job in analyzing it is simply to give an account of it, the way we might with breathing. This is further plagued by the fact that his justification for money's existence as an institutional fact clashes with this account. In short, the necessary and sufficient condition for any social fact can't be collective intentionality if there are no intentional features about the social fact that make it such, unless of course those collective intentions can *only* be rightly applied in the event that the physical constitution of the social fact is appropriate to that end. Aside from the problem of circularity, this is also explicitly repudiated by Searle's strong psychologist construction of social facts, "where the function (of social facts) is not

⁶³ *Ibid*

⁶⁴ *Ibid*

performed in virtue of the physical features of the person or object,...but it is performed in virtue of...a certain status function...with that status there is a *function* that can be performed only in virtue of the *collective acceptance or recognition* of that status...”⁶⁵ In other words, Searle’s model for social facts really suggests (a) and not (b). In short, Searle’s argument and method falls flatly in a Euthyphro’s dilemma that he cannot get out of because of his overemphasis on psychologism.

All this leads me to what I believe to be an important conclusion about models of social facts that are akin to Searle’s, namely, they do a particularly poor job of explaining the construction of social facts when the facts relate to non-human entities, like money, where agency is attributed to an object that doesn’t have human-like agency.⁶⁶ The reason this problem occurs is because in defining entities in terms of functions, you divorce the object in question from what metaphysically brings it into being while explaining the function in terms of what brings it into being. Thus, the same problem that comes from the traditional economics textbooks that seek to explain what money is occurs in Searle’s model of social facts broadly, and with money in particular.

Despite the problems illustrated with Searle’s account of social facts, there are meaningful lessons to take away about how to approach the issue. The first is to recognize that when we do social ontology we are engaged in the construction of models, not too distant conceptually from the sort of models one finds in biology, utilizing the best evidence and principles of the discipline in order to demonstrate relations of cause and effect, property acquisition, and indeed existence. With complex relations like those at the cellular or the social

⁶⁵ *Ibid*, underline added

⁶⁶ I think the model better explains the existence of groups and social roles like “President,” “CEO,” or even “Mother,” though many similar problems emerge.

level, whatever model we use will suggest a particular set of ontological commitments. This is another way of framing the problem with Searle's model. It is a thin method of explaining the construction of social reality, because in attempting to explain our commonsense intuitions about money, it stays at the level of common-sense functions. Following Kuhn's⁶⁷ analysis of epistemic virtues, it is a model that gains generality at the expense of depth of explanation, a familiar tradeoff in the history of scientific progress.

VII. Grounds, Anchors, Frames, Overcoming Monetary Functionalism

In this section I will offer my own view as to the best model for an ontology of money and why it is superior to Searle's model. It draws on the work of two theorists, Brian Epstein and Tony Lawson, in two different ways. First, I will discuss the theoretical advancements brought to social ontology by Epstein in specifying the difference between grounds, anchors, and frames and then use that to offer an emergent notion of social facts and explanation of social entities. To do this, I'll specify the grounds for money, as well as the anchors, using a critical realist approach pioneered by the likes of Lawson and Haslanger.

Research about social ontology over the last twenty years has focused on the path pioneered by Searle in discussing the glue of the social world. But as Epstein argues, much of the debate conceals general agreement, and the agreement conceals tensions amongst various views. I agree with Epstein that part of the problem with the literature has been an insufficient attention to the difference between grounds and anchors of social ontology.

⁶⁷ (Kuhn 1962)

To explain the difference, we might first look to the case of a social fact like the one Epstein uses, “Assad is a war criminal.”⁶⁸ Assad is a war criminal because of actions like ordering the torture and execution of citizens and the use of sarin gas during the Syrian civil war. These are the facts about Assad that ground him being a war criminal. In other words, they are a sufficient condition for Assad being a war criminal. Furthermore, if Assad is not a war criminal, then we can also deduce that he did not torture or use chemical weapons. The grounding process is best understood as the establishment of a relation that derives one set of facts from another set where there is a more basic/elementary set of facts from which the others derive. Suppose some set G is the set of facts that are all sufficient conditions for F , where F is the derived social fact or facts. Notice that the set G can contain natural and social facts depending on the fact in question. Thus, in the case of Assad, social facts like those relating to torture are included in the grounds for his being considered a war criminal, and these social facts also have their own grounds.

These features of grounding mean that social facts form an interactive tapestry of multi-place (or multi-variable) relations. A more explicit explanation of the formal features of the grounding relation is that grounding is “irreflexive and asymmetric,”⁶⁹ meaning that grounds cannot ground themselves and that members of the set F cannot be grounds for members of set G . In Epstein’s account, sets G and F are circumscribed by what he refers to as “frame principles,”⁷⁰ which situates the members of G and F in the conditional relation. Thus, the frame principle for war criminals might be, “if X engages in torture, chemical warfare..., in situation Y , then X is a war criminal.”

⁶⁸ (Lawson, *Ontology and the study of social reality: emergence, organisation, community, power*, 2012)

⁶⁹ (Schaffer 2009)

⁷⁰ (Epstein, *The Ant Trap* 2016)

In terms of their formulation, Epstein's frame principles and Searle's institutional facts are nearly identical. But this initial similarity obscures crucial differences in terms of modality and compounded frames that make Epstein's views of frames seemingly more nuanced. But I do not think the framing relation needs to be understood as distinct from the set of grounds, because we can plausibly integrate propositions of the same form as an explicit frame principle without any loss of generality or specificity to our model. Case in point, the proposition that Assad is a war criminal can be grounded by Assad's actions (torture, chemical weapons use), in addition to a proposition such as, "the relevant international covenant P determines that if X tortures, uses chemical weapons, etc,...then X is a war criminal." Indeed, this is the method Schaffer (2019) employs in order to offer an account of a social metaphysics constructed only of grounding relations.

The grounding relation is important to focus on because it is the metaphysical relation that Searle was missing in his analysis of money, because grounds explicitly establish the existence of social entities (or artifacts) like money. He could break out of our monetary variant of the Euthyphro dilemma by specifying that relevant physical features of an entity are necessary for it to be considered money. But this move wasn't available to Searle, because his argument only creates a frame (X counts as Y in C) and establishes the basis for that frame (collective intentionality/acceptance).

To demonstrate the power of the grounding relation in explaining the features of the social world, we can give a grounding account of money in the United States by examining the proposition,

P1: I have a \$20 bill.

Let us assume that I do indeed have a \$20 bill; this implies that I have a piece of green composite paper printed, and that it has been certified by the United States Bureau of Engraving and Printing (USBEP),

P2: I have a piece of green paper and that paper has been printed and certified by the United States Bureau of Engraving and Printing (USBEP).

Given the nature of the grounding relation, it is important to make clear that $P1 \neq P2$. While both P1 and P2 hold, and if we negate P1 we also negate P2, we cannot reasonably reduce P1 to P2 because, for example, I cannot pay my taxes with a green paper that has been printed and certified by the USBEP. This will be important later.

Furthermore, we can now see that facts relating to the USBEP are also social facts that have their own grounds, such as the establishment of the USBEP by an act of the United States Congress in 1862 with the legal power to create valid currency in and for the United States.

P3: The USBEP has the right to print valid currency because of a valid act of the United States Congress in 1862.

Thus, while P3 does not ground P1, if we want to understand the nature of P1 we must also be familiar with P3. Before moving on to discuss anchors, three issues need to be raised. First, this only grounds a \$20 bill in the United States (more on this later). Second, we have not grounded a proposition about money, we have grounded it relative to a particular money unit we refer to as bills; this is why I earlier remarked about the importance of Searle's distinction between types and tokens. Our grounding relation extended here can tell volumes about the token, but we still need to ground (and thereby explain) the type. Third, it is not yet clear how the grounding relation implies the multifarious uses of my \$20 bill.

Articulated as one or an array of conditional statements, the picture painted by grounding relations either eventually has a bottom or constitutes an infinite regress. It is clear that an infinite regress would not suffice for explaining social phenomena and thereby meet the criteria for the acceptance of such a theory. This implies that grounding social facts has a bottom, and that bottom is the anchoring inquiry.⁷¹ Whereas facts relating to Assad were the grounds for him being a war criminal, anchors are what establishes those grounds. One easy way to understand anchors is to use Searle's collective intentions as an example. Searle's whole theory is in fact a theory of anchors, and for him collective intentions anchor everything that is a social fact.⁷² They are, in Epstein's words, "the putting in place relation."⁷³ Thus, the distinction between anchors and grounds captures the nature of my approach to money's ontology. One cannot explain what money is solely by appealing to grounds, because then one finds oneself caught in an infinite regress of social facts. Furthermore, as demonstrated in Searle's case, one cannot explain a social entity like money by only appealing to anchors; otherwise, the model does not have enough specificity to give a rigorous account of tokens.⁷⁴

While I largely agree with Epstein's framework for social facts, I take issue with his claim that "the grounding inquiry is more pertinent to modeling than the anchoring inquiry."⁷⁵ While Epstein remains largely silent on what he thinks is the correct way of conceiving of anchors, but he articulates that he is willing to accept a Searlean notion of collective acceptance as a plausible theory of anchors, albeit one that requires more analysis and examination.

⁷¹ (Epstein, *The Ant Trap* 2016)

⁷² Recall, X is a social fact if X refers to a collective intention.

⁷³ (Epstein, *The Ant Trap* 2016)

⁷⁴ Token in the sense of type-token, not monetary tokens.

⁷⁵ (Epstein, *The Ant Trap* 2016)

I suspect that the reason Epstein is more concerned with grounds than anchors is that his concern is with the host of problems that currently exist with mainstream models of economics.⁷⁶ I agree with the sentiment that the problem in this sphere is more urgent, given the assumption that flawed extant economic models are more likely to lead to decisions that contribute to unforeseen or negative consequences that might manifest in the near future. However, the anchoring inquiry ought to be thought of as an integral part of modeling in the same way Newtonian physics now understands the progress in particle physics as an important part of its models. Indeed, if a model of Newtonian physics did not align with what we know about particle physics, we would have reason to reject the Newtonian model. In this analogy, the objects of inquiry for the particle physicist serve as the anchors for the Newtonian. This is not a precise analogy, but it gets across the problem of neglecting anchors in model-building.

To summarize why the grounding-anchoring picture is a superior metaphysical picture to Searle's view, we can see that this avoids the lack of clarity and associated problems with defining a social fact by appeals to functions. Furthermore, the grounding relation's ability to exhibit the characteristics of a multivariable function as opposed to the covering law-esque formulation offered by Searle which suffers from a misplaced reductionism. Third and most importantly, it enables the integration of social entities into our model, of which money is a primary case.

VIII. My Model for Money's Ontology

⁷⁶ (Epstein, *The End of the Social Sciences as We Know It* 2015)

As articulated in the introduction and my historical account, my model for money's ontology emphasizes the primacy of the ability of sovereign political entities to specify the unit they want political obligations to be denominated in. Here I will offer the specifics of my model of what money is and expand the analysis to the grounds and then the anchors for the existence of money before generalizing that to a general model for the determination of social facts.

D1: If an entity of type X is determined by a sovereign polity, C, to be an acceptable means of satisfying domestic political obligations, then all entities of type X are money in C.

a. Grounds

First, D1 is itself a grounding relation that is grounded by the existence of a system of domestic extraction of resources referred to by the name *taxation*⁷⁷ and a designation by polity C of an entity. Both the designation and *taxation* will vary depending on C. Thus, a comprehensive or universal account of grounds can't be offered. Canada, for example, will have a different set of grounds from the United States. But the sketch of the grounding relation for the \$20 bill in section VII can be partially repurposed here to give an idea of what that might look like. Before proceeding, however, it is worth pointing out that inasmuch as D1 specifies what *is* money, it also specifies what is *not* money. This will become important later.

P1: Diogenes has \$100 in an account of bank B.

Notice the difference in form of P1 here from P1 in section VII: The \$100 is in a bank account as opposed to being physically instantiated. In this case, the \$100 is an ownership right that Diogenes can choose to exercise under particular conditions. This provides the more illustrative example, given the nature of modern economic practices. P1 is grounded by P2:

⁷⁷ The italicized form of the word *taxation* refers to the system.

P2: Some string of 1's and 0's exists on a server owned by B, and those 1's and 0's on B's server can satisfy \$100 of tax obligation owed by Diogenes.

Once again, there is some physical entity, in this case a code on a server represented in 1's and 0's (binary), that represents the money. This refers to an additional problem for Searle's position; namely, it cannot model modern money well. Searle's solution is "a free-standing Y term,"⁷⁸ or a status function that is not attached to any particular physical entity but that still represents a power or right. But it is not the case that we are talking about a status with no referent. Diogenes can refer to the structure of the software's code (which is coded in binary) to point to the quantity of money in his account. Additionally, the 1's and 0's can satisfy Diogenes' tax obligation in the same way that the \$20 bill might because of its designation by the USBEP. Whether Diogenes has a tax obligation or not, the 1's and 0's can still satisfy one if it is imposed on him.

A further important clarification of P2 is that not all 1's and 0's can satisfy the obligation, only the bank's 1's and 0's can satisfy the obligation. Going back to D1, this is what is meant by "an entity of type X." Bank code can do this, but other code can not. If Diogenes attempted to pay his taxes by Webex 1's and 0's, he would likely find himself liable for more or in jail. (Exile has gone out of fashion in the contemporary world.) P2 therefore captures the relation in D1, but now we must ground the "bank 1's and 0's" in its concomitant social fact.

P3: Designation by the United States Internal Revenue Service, United States Federal Deposit Insurance Corporation, United States Treasury, and United States Federal Reserve permits actions by B's server to satisfy tax obligations for customers of B.

⁷⁸ (Searle, Money: Ontology and Deception 2017)

For brevity's sake, the designation here refers to the host of banking regulations that commercial banks must follow in order to be considered commercial banks. The designation of being a commercial bank is implied in B, thus being a commercial bank grounds B, but it does not ground the ability for Diogenes to use B's server 1's and 0's to satisfy tax obligations. Furthermore, P3 is the first proposition that does not refer to any specific customer (Diogenes). This is the ground that Epstein would interpret as a frame, but that I am instead utilizing as a ground.⁷⁹ In practice, this alphabet soup of federal banking organizations is what secures the banking industry and creates a degree of confidence in the bank, unlike what was the case after October 29, 1929.⁸⁰ The next step is to ground all those federal agencies (henceforth collectively referred to by "USBANK") and their particular mandates in relation to the designation of B's ability to have its server's 1's and 0's satisfy tax obligations (henceforth referred to as TAX). Once again, for brevity's sake,

P4: USBANK can offer status TAX to any bank such that bank satisfies condition R.⁸¹

P5: By a valid act of the United States Congress, USBANK regulates the banking industry by enforcing R.

As is clear from P4 and P5, the grounds gradually become more legalistic, and also multiply the number of entities that each require grounds. This is why USBANK was used as a collective reference, because the grounds for the federal agencies will be roughly the same. Additionally, the grounds could go further down to the powers of the United States Congress to regulate the banking industry (found in Article 1, section 8, para. 18 of the Constitution), and

⁷⁹ Refer back to section VII for the explanation as to why.

⁸⁰ (Galbraith 1962)

⁸¹ R is shorthand for banking regulations implemented by USBANK and mandated by Congress, hence step P5.

potentially below that. However, to continue the inquiry down, and to fully do justice to money's conditions for existence, we need to articulate the anchors that set up these conditions.

Before that, however, two objections might be levied against this picture of grounds. First, that the functions of money (such as exchange, storing value, and being a unit of account) are not grounded in any P1-P5, and second, has this not just defined money in terms of a function, the function of being able to pay taxes?

b. What about money's functions?

With respect to the first question, a good start is to point out that the silver coins utilized by the Mesopotamian priesthood exhibited the function of being a unit of account even though the coins were not money. What this illustrates is my earlier claim that an entity might exhibit a property like being a unit of account, but that this does not make it "money." If functions like exchange and storing value were located in P2-P_N⁸², then all money would exhibit these features, and a necessary, if not immediately clear, condition of being money would be these functions. It is not incommensurable with the position I have sketched to suppose that these functions exist in P2-P_N, but I think a better model is to have those functions grounded by the existence of money. Thus, a plausible model for those functions might be:

P0: Diogenes purchased some commodity A for \$100 from his bank account.

For the sake of clarity, given the conventional way we talk about money, P0 is a past action, but replacing "purchased," with "purchasing," or "purchases," does not radically alter the logical relation (though it does alter it by changing the modal operator). In this case, P1 partially grounds P0, and it is trivial to show how the other functions would be represented. The interesting part of P0 is the question of what is meant by the word "purchased," and what its

⁸² P_N denotes the hypothetical set of grounds, and grounds for the other grounds of money.

grounds are.⁸³ Purchasing is a social fact as well, and therefore it is grounded. It is not trivial to say that purchasing invokes a relationship between a good or service owned or performed by the payee in exchange for something, in this case money, given by the payer. Plausible partial grounds to fill in this picture are systems of property rights that delineate that to which the payee and payer have a claim at the outset of the purchase, legal or social practices that suffice for conserving the relevant rights, the rationale or justification for the price point, the reasons that the entities in question are accepted in the exchange, etc. Once again, with this inquiry we find that the social world that we take for granted belies layers of complexity obscured by how we talk about exchange; and this is a world that is not done justice by painting the picture in terms of “X counts as Y in C” or creating a model of the economy that simply presupposes money’s existence as a means of exchange.

This complexity should also provide reasons for doubting the claim that “money is that which functions as a means of exchange,” because if any entity serves as a medium of exchange it does not do so by virtue of being that entity, but by virtue of existing in a particular relation to a host of other social facts and grounds. This is the illustration needed to explain the concept of embeddedness utilized in the introductory historical analysis. Like exchange, money is also a deeply embedded type,⁸⁴ and this embeddedness is partially concealed by our grounding explanation. I suspect that if we were to chart out all the grounds for the grounds of P1, then the model would resemble a large pyramid with P1 existing at the very top.

c. Is this not just another functional account?

⁸³ And, by extension, what is meant by being a store of value, or a unit of account, and what are their grounds? Analysis that applies to one of the three functions can be extrapolated to analyze any of these paradigmatic functions.

⁸⁴ One that is less embedded than something like exchange, but perhaps more embedded than being a store of value. That is the subject for another project.

Here, to put this question to rest, I will go into slightly more detail as to the nature of the grounding relation. However, I will then explain why, if I have defined money functionally, it is such a trivial sense of functional definition as to make it irrelevant for any act of definition.

With respect to the grounding relation in D1, the friend of functionalist explanation might attempt to rearticulate D1 in functional terms, claiming that D1 and F1 are equivalent expressions.

F1: If an entity of type X functions as the unit accepted by a sovereign polity, C, for purposes of satisfying domestic political obligations, then all entities of type X are money in C.

The crucial difference between F1 and D1 is that F1 replaces “determined by a sovereign polity,” with “functions as the unit accepted by a sovereign polity.” The difference is deep and potentially misleading; in short, replacing “determined by” with “functions as” changes the grounds of D1 from referring to an entity (paper, 1’s and 0’s), and the decision by C to accept X, to an entity and some practice of the community. In other words, it gets the mechanism wrong by putting the causal power to establish the grounds for money partially in the hands of the sovereign political unit and partly in the hands of a different set of individuals. But this also implies the trivial sense of claiming this grounding account is a functional definition, insofar as people use money to pay political obligations. But certainly, this explains a use, as opposed to defining money in relation to a use.

d. Anchors

Searle takes anchors to be constructed from psychological features of individual humans, aggregated together to produce social facts. Indeed, a great deal of ink has been spilled on explaining and refining the concept of collective intentionality for just this purpose. I propose an alternative model of anchors that has two distinctive features from Searle’s collective intentions.

First, anchors ought to be understood as being composed of people *and* relations between those people. Second, anchors ought to be understood diachronically, or in terms of a process of change over time. These two features of the social world have been primarily explored by those in the critical realist tradition of social explanation, particularly Tony Lawson and Sally Haslanger. I will use their insights to bring together the general picture of critical realism with the anchor-ground framework used by Epstein to demonstrate how my picture acts as the “putting in place” relation.

e. Anchors, more than Individuals

One initial point of agreement between my model and Searle’s is that I also acknowledge psychological characteristics of humans to be part of the anchoring relation. Beliefs and ideas are important components for anchoring social facts. Eventually, P_N reaches some bottom of social facts with respect to the system of laws and political customs in a group of humans, and if one is to account for the multiplicity of kinds of social facts and grounds, human psychological features must be integrated. This is broadly uncontroversial unless one takes the position of many a hard-nosed “orthodox” Marxist.

However, the more controversial claim, that relations between humans act as anchors, must answer two related questions: What are these relations, and how do they differ from psychological attitudes? These anchoring relations ought to be conceived of as an active mechanism that is constantly subject to conflicting tendencies towards change and conservation, given the actions of humans. The elements of the putting in place relation are exclusively human; we are, after all, talking about human social facts, and not dolphin or ant social facts. However, this should not be misconstrued as an excessive anthropocentrism, because human actions and beliefs will be enabled and constrained by their physical surroundings, including the non-human

entities that populate those surroundings. For example, the anchoring of early agricultural societies and their social facts would not be modeled well if we did not include the role of beasts of burden in constructing those societies.

Geographical features also end up bearing on the anchors for human social facts on this account. Rivers, mountains, oceans, etc, features of the Earth that enable and prevent human relations, are implicated in this picture. For instance, anthropologist Jared Diamond has made the case that societies separated from major land masses by water, whether that be in Polynesia, among the Minoans of Ancient Greece, or in the modern nation of Taiwan,⁸⁵ are able to define themselves and their relations to other groups of people by this geographical distance.⁸⁶ To take the example of Taiwan, the set of social facts relating to the KMT government of Taiwan is partially anchored by the negation of a relation to the CCP mainland by virtue of the Taiwan Strait (amongst other features).

To be clear, the kind of relations I am utilizing here are not isolated from society, as a philosopher with a sympathy for Thomas Hobbes might claim. Society is part and parcel with this mechanism, and thereby grounding relations having to do with social facts will naturally affect the underlying anchors (as they do with legal facts like the relation between Taiwan and China). Contrary to grounding relations, anchors exist in symmetric relations to grounds. This symmetry is what makes the position about social facts I am here articulating justifiably considered holist. It is holist because, borrowing from Lawson, it emerges out of facts about individuals and their relations.⁸⁷ Emergence is best understood in Lawson's terms as referring to "an emergent property or power is the property or power of something (that possesses it), i.e., it

⁸⁵ My example, not Diamond's

⁸⁶ (Diamond 1997)

⁸⁷ (Lawson, Reorienting Economics 2003)

is a property of an object, entity or element, where the latter is usually formed by way of a combination of pre-existing (lower level) elements or entity.”⁸⁸

With respect to the relevant anchoring relations for money, there is an important point to be added from the theorists in the tradition of Modern Monetary Theory. People such as L. Randall Wray have made the point that what I have referred to as the grounding condition for money (being accepted for fulfilling political obligations) is anchored (given my framework) in the state’s monopoly on violence. Why do modern Americans or European feudal lords use the relevant denominated units for fulfilling obligations? Because if they failed to do so, the American would end up in the same position as Al Capone and the feudal lord would end up like the Knights Templar. In this way, the state maintains its power by forcing the people within its jurisdiction to accept its means of fulfilling obligations. Hence, the grounding condition for money is utilized as a conservative impulse when it comes to the relevant anchors in society.⁸⁹

Thus, no Hegelian *weltgeist* need be invoked in order to explain this holism here described; human beings remain the metaphysically basic features of this world view. Indeed, a visual reconstruction of my model of ontology would plausibly look like:

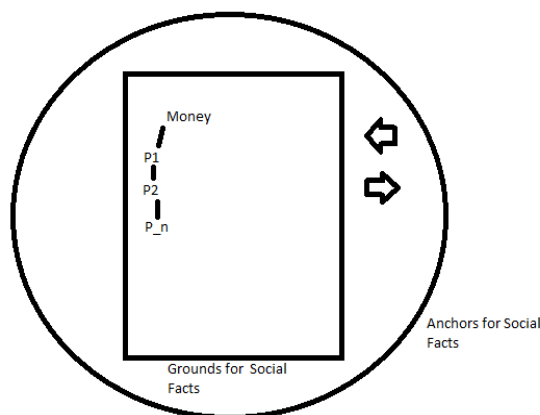


Figure 1

⁸⁸ (Lawson, *Ontology and the study of social reality: emergence, organisation, community, power*, 2012)

⁸⁹ (Wray 2012)

The arrows between the anchors and grounds in Figure 1 are not biconditional; they are meant to represent the role of historical and causal processes and mechanisms. I earlier remarked that the grounding mechanisms are explainable by opposing impulses of change and conservation. To make this more concrete, recall in section II the analysis of gold and greenbacks as being money in the early twentieth century nation-state. In part, the economic relations and mechanisms of the late nineteenth and early twentieth centuries anchored the social fact about gold and greenbacks being money. Thought of in this way, anchors explain the basis for the logical relations represented in the grounding relation, and thereby “put it in place,” the social facts represented in the grounding relation. They then also exert causal influence on the anchors, as they did when the British implemented a legal requirement for a 1:1 ratio of gold to the pound sterling, thereby exerting causal force on at least one particular anchor, the economic relations of the late nineteenth century.

f. *Diachronicity and the Grounding-Anchoring relation*

To conclude with the construction of my model of social ontology, the key feature that differentiates the analysis here from the likes of Searle and Epstein is that the relations between grounds and anchors are diachronic. By that, I mean that a full account of the anchors of some set of grounds will require a historical explanation of some underlying mechanism. This is an obvious implication of representing a causal relation between anchors and grounds, but it is a feature that Searle⁹⁰ and Epstein⁹¹ explicitly disavow. The picture they construct is synchronous; anchors and grounds are all evaluated at t_1 in order to maintain the logical force of a modal relation. This diachronicity is also why I started section II with an analysis of my account of the

⁹⁰ (Searle, *The Social Construction of Reality* 1995)

⁹¹ (Epstein, *What is Individualism in Social Ontology? Ontological Individualism vs. Anchor Individualism* 2014)

history of money, because those historical features become important in partially explaining money's ontology.

g. Summary of my model of money's social ontology

In this section, I have articulated my view of the proper way of conceiving of social ontology generally, and money in particular. This was done by distinguishing between the grounds and anchors of social facts and giving a unique grounding account of money that relies on its designation by a sovereign political entity as an acceptable means of fulfilling tax obligations as the condition for it being money. I then offered an account of anchors in social ontology, drawing upon the work of Tony Lawson to give a causal-mechanistic explanation for what Epstein calls the “putting in place” relation. Thus, the picture I have painted of social ontology is both holist and naturalistic. It captures the specific nature of social entities and models the embeddedness of certain sets of social facts, such as money, in a web of relations that reflects their centrality in society, while also setting up a framework that can be applied to disparate societies across human history in order to understand their social institutions.

IX: Evaluation of Paradigmatic Cases

In this section, I will outline the ways in which my model of money's ontology can be used to understand three contemporary cases that often evoke and invoke the question, “What is money?” These are questions about the status of Bitcoin, the denomination of foreign currencies like the Argentine peso in US dollars, and finally the recent change in India from hard to digital currency. These cases are meant to demonstrate the breadth of applications of my model, and

also to present avenues for future research into the relation between this philosophical account and its economic implications.

a. Bitcoin

Of the three cases, Bitcoin presents itself as the easy case, because the question often asked is whether or not Bitcoin is money, and what is its status? First, Bitcoin is a digital currency that uses cryptography and electronic signatures to function as a store of value and means of exchange for online transactions.⁹² Bitcoin was designed to overcome the necessity for third-party banking institutions to certify transactions before releasing funds for a transaction, while maintaining the security of the currency, flexibility of use, and the privacy of users.⁹³ Its advocates say that the value of Bitcoin comes about because of the relative sophistication of its cryptography and controls on the creation of new Bitcoins, thereby giving it greater ability to function as a store of value than its rival digital currencies.

The reason Bitcoin presents the easiest case is that it is clear that it fails the grounding definition in D1. One cannot fulfill tax obligations in Bitcoin. Indeed, the servers that encrypt Bitcoin do not have the correct type of 1's and 0's to satisfy this condition. Furthermore, Bitcoin's explicit rejection of conventional banking institutions means that it will not be able to fulfill this designation. If I want to pay taxes in Bitcoin, I have to privately exchange it for dollars from someone willing to part with dollars in exchange for Bitcoin, and then use those dollars for satisfying my tax liability.⁹⁴

More than this, nations are unlikely to accept Bitcoin for tax obligations because it would mean giving up sovereign power while also weakening the value of their currency in

⁹² (Nakamoto 2009)

⁹³ *Ibid*

⁹⁴ (Bofinger 2018)

international currency markets. This also partially explains why Bitcoin and other cryptocurrencies have relatively short periods of prominence; their value (in price terms) and functions are contingent on their ability to be redeemed into state currency in private exchanges. Bitcoin is held up as an example by its advocates precisely because it is the exception to this phenomenon of being quickly discarded, which is not the rule for digital currencies. Indeed, despite the technological sophistication of Bitcoin, its best historical parallel is bullion after the transition to fiat money in the United States after the 1970s.⁹⁵

b. Argentina and US Dollar-backed Sovereign Currencies

Over the last 40 years, the government of Argentina has gone through intermittent periods of monetary and fiscal dysfunction prompted by a devaluation of its currency in international exchange markets, coupled with flight of foreign-denominated currency, particularly US dollars (USD).⁹⁶ One of the policies enacted to stabilize the currency, attract more foreign reserves, and improve confidence in the country's economy has been to hoard reserves of USD in the national bank and create Argentine pesos in a fixed ratio to the amount of USD on hand.⁹⁷ This poses the interesting question of whether the grounding relation, D1, implies in Argentina's case that USD fit the bill for money in Argentina. Once again, this is not to ask whether people exchange USD in Argentina (they certainly do), but whether USD can be appropriately construed as "an entity of type X" in the context of Argentina. Despite this example having more of a foundation than the Bitcoin case, I will still come to the conclusion that USD do not count as money for Argentina.

⁹⁵ *ibid*

⁹⁶ (Jorge Otoala 2019)

⁹⁷ *ibid*

The reason the question is often posed is because of a confusion about what it means for a currency to be backed by US reserves. People draw the analogy between gold reserves in industrial countries in the 19th and 20th centuries and reserve backing, but this misses an important distinction. Gold in the industrial world wasn't just serving the role of backing greenbacks, it was redeemable. Thus, if I walked into a bank and dropped off \$X worth of bullion, my account would be credited on the bank ledger and I could use that bank credit to withdraw greenbacks at a later date (or that day). This two-way relation between greenbacks and gold also applied between the banks themselves and the federal government. Therefore, in the historical case, gold did not just back the greenbacks, it had all the same social properties as the greenbacks, because the specified grounds at the time dictated such in those polities in which this was an accepted practice.

Juxtapose that to Argentina and two differences become clear. First, one can exchange USD for Argentine pesos at Argentine banks, but one cannot exchange Argentine pesos for USD due to state currency controls. (Money changers are exchanging currencies owned privately with no relation to the government, and indeed even these money changers are put in a pinch when the government institutes more strict currency controls.) Therefore, USD and pesos do not have the same social properties, implying that their grounds in Argentina are different even though four pesos might add up to one USD, given the ratio set by Argentina's central bank for printing pesos, and that that ratio is set in the first place because Argentina can print pesos but not USDs.

Second, it simply does not pass the test of reasonableness. Given my analysis of anchors, it is also not possible for USD and pesos to have the same status; the reason has to do with the embeddedness of particular state interests in keeping reserves of USD. USD reserves enable Argentina to send a signal to the international finance community that, if anything should happen

to the Argentine economy, investors would be able to recoup a reasonable share of their investment because of the ability of the Argentine government to satisfy those obligations with USD (a fact that is itself partially grounded by the requirements for the trading conducted by those banks to be done in USD, with many being American banks and therefore themselves having tax obligations in USD). This implies that the mechanism of global finance actually creates a difference between pesos and USD, such that the relevant anchors for the two are also distinct. Thus, while USD are very important to the Argentine government, they are of a fundamentally different character from Pesos. To conclude, a reasonable parallel of Argentina's situation vis-a-vis USD might be a Papal sanction in the medieval period. While monarchs needed to be sanctioned by the Pope, the nature of kings and the nature of popes was profoundly different, even if being king was partially dependent on being sanctioned.

c. India's Currency Crisis

The case of India's currency crisis is an important example to reference because it perfectly demonstrates the model explained here, while also illustrating how these designations about money can change, and the fallout caused by changing a deeply embedded social fact. For background, in 2016 the Indian Prime Minister made a move to remove the status of legal tender on low-denominated rupees across all of India, ostensibly in order to stop black market transactions and corruption.⁹⁸ The policy's efficacy is not at issue here; rather, what changed about the grounds in India when the announcement was made is the major issue.

In India, these lower bills were phased out of circulation by a process of bank redemption wherein bank credits or new, higher-denomination bills were brought in to replace the old bills being exchanged at the commercial and public banks. The government ceased to back that

⁹⁸ (India's cash crisis explained 2016)

currency and started shifting to digital and higher value physical currency. In terms of the logical relations that form grounds, the Indian government limited the types of acceptable currency in the country not through specifying what is acceptable, but by targeting some set of Indian bills as not acceptable. Thus, it is a different form of invoking the grounding relation D1, but it still holds the same status. In short, the process is the same as if a country switched from a commodity money currency to a fiat currency.

It is rare to see this kind of dramatic currency reform in the present day for many of the reasons that became manifest in the aftermath of the government's decision. There was a run on the banks, long lines for redeeming lower denominated bills, social rationing of goods and services, economic anxiety on the part of India's poorest citizens, and international financial markets were not pleased either.⁹⁹ What this empirical result indicates is the embeddedness of a particular type of low denominated currency in India in a host of relations. The logical change was the signing of the legislation, but that reflected back onto and caused a shift in the underlying conditions of Indian society. What makes India a good paradigm case for this sort of analysis is that the grounds and anchors of these social facts existed in a state of flux. The relative chaos can be attributed to economic factors like a large class of poor people in India that made substantial use of these currency notes. This widespread set of relations was then altered by legislation and the relations had to be maintained in a way that did not invoke the newly demonetized notes. If people kept on using those notes, as many did, the conditions for using those notes changed from being conditioned on being able to pay state obligation to just something people decided to exchange for a whole host of reasons. This is to say, they ceased the role of being exchanged as *money*. They became just commodities. While the Indian situation

⁹⁹ (Gabriel Chodorow-Reich 2020)

warrants more research, this brief sketch captures the core relationships between the grounds and anchors of the 2016 demonetization program.

X. Conclusion, what Economists should learn.

The sentiment of Lawson and the people that work in the field of social ontology is that their work should “serve as an under-laboring for social scientists,” and on this point Lawson and Locke agree.¹⁰⁰ In explaining various perspectives on social ontology, from the individualism of Searle, to the holism of Lawson, I have demonstrated how that under laboring leads to concrete effects on the models we create. The reason this bears noting is because what and how we take something to exist in our philosophical models bears on a criterion for accepting or rejecting social scientific models.

This is precisely what John Maynard Keynes discovered when he wrote his *General Theory*. The way money was modeled in the dominant social sciences of his day aligned with many of the dominant philosophical models, but neither of those models lined up with reality; and the consequence was the Great Depression and the Second World War. Thus, Keynes used the tools he had at his disposal to change the social scientific model in economics as a means of ameliorating the problems of his age. But Keynes’ changes in social science also called for a catching up of the philosophical model of money’s ontology. This story bears repeating because it is the clearest example of a change in a model of ontology changing the world. After the publication of the *General Theory*, the liberal governments of the industrial West redoubled their efforts to right the economic ship of state, as opposed to relying on the market to set *itself* right. I

¹⁰⁰ (Lawson, Reorienting Economics 2003)

do not think Keynes' oft quoted aphorism that, "in the long run, we are all dead," is meant to express nihilism about the role of the social scientist, philosopher, or policy maker.¹⁰¹ Instead, it is meant to point out that ideas have power, and bad ideas also have power, and the job of the philosopher and economist is to make the best with what they have, while they can, to impart a concrete impact on the world, as Keynes did.

As philosophers and economists, the debates we have are largely academic, that is, disconnected, even though they have a profound bearing on our pictures of the world. But Keynes' historical case shows that our models of social reality are not superfluous lines of inquiry. Indeed, as I have demonstrated, the real lives, relations, and interactions of human beings are what anchor social facts; this implies that the philosopher and the economist must learn from other disciplines like sociology, anthropology, history, and many others, if their picture of the world is to hold up to rigorous challenge.

All this is particularly relevant given the challenge of our day. After the fall of the Eastern Bloc there was a sort of triumphalism about the nature of progress and the way we model that. It was alleged that the anti-individualist model of social explanation had proven itself in practice to be flawed and thereby able to finally be rejected. But history did not end with the change of flags in Red Square, and indeed history reared its ugly head again in 2008 with the financial crisis, and now, as I am writing this, in 2020 with the coronavirus epidemic. Our ability to design, implement, and revise policies for resolving these crises is contingent on our models, and as we know from social scientific research, "if you put junk in, you get junk out."

A grasp of the distinction between anchors and grounds and the embedded conception of social facts represents a drastic change from the models we have right now in economics because

¹⁰¹ (Keynes, *The General Theory of Employment, Interest, and Money* 2015)

at its core, this concept understands social reality as a holistic picture of various mechanisms pushing and pulling in multiple directions. To understand that picture we cannot presuppose at the outset that rational choice models and gamified decision making will get us to the whole picture, we need to take some of the empirical data of society and subject our models to that, as opposed to vice versa.

The analysis given here of the social ontology of money is an under laboring as well. It takes its core idea from the deeply embedded notion of state power and then looks to model various relationships derivative from that. It reflects the logical structure of society through the reliance on grounds and can give an account of the causal processes and mechanisms of society through its analysis of anchors. In this way, it resists an ontology based on functional accounts, because as I have demonstrated functional models do not explain the host of logical and causal relations that enable those functions. Indeed, for a deeply embedded phenomenon like money, many features get lumped together in discussing it, but being clear as to what is money qua money, and what is money qua, value, history, use, etc. is a separate matter entirely, though it is one that could be modeled given my distinctions.

Definite modifications can be made to this picture by more thoroughly giving an account of those underlying mechanisms while also showing how various logical grounding relations end up cashing out in becoming deeply embedded features of society. This sort of work is partially empirical and largely theoretical and social ontologists ought to continue the work they are currently doing in integrating diverse perspectives into their accounts of social existence. To do otherwise would be to have “concepts without intuitions,”¹⁰² and thereby end up having

¹⁰² (Kant 1977)

meaningless models; and the cost for meaningless models and bad ideas is too high to ignore any longer.

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