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The Grammar of Money -
An Analytical Account of Money as a
Discursive Institution
in Light of the Practice of Complementary Currencies

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Abstract

Since the global financial crisis in 2008, complementary currencies - from local initiatives like the Brixton Pound to timebanks, business-to-business currencies and, of course, Bitcoin - have received unprecedented attention by academics, policy makers, the media and the general public. Their proliferation challenges predominant definitions of money and their implementation in the law and financial regulation. However, economic and business disciplines commonly only describe the use and functionality of money rather than its nature. Sociology and philosophy have a more fundamental set of approaches, but remain largely unintegrated in financial policy and common perception. Unless this conventional understanding of money and currencies is questioned and extended to consistently reflect theory and practice, it threatens to impede much needed reform and innovation of the financial systems towards equity, democratic participation and sustainability.

This paper presents a representative selections of the results from a PhD research project (same title, University of Lancaster, awarded October 2018) that addresses these issues. Building on a theoretic framework of social constructivism and discursive institutionalism, it scrutinises monetary theories and their epistemological underpinning and goes on to analysis current definitions of money and currencies - conventional and complementary - with the methodologies of neo-institutionalism, practice theory and critical discourse analysis. This work will be exemplified with findings from three sets of data, namely the monetary laws of the United States (section 3), the publications of the Bank of England (section 4), and the field of complementary currencies (section 5).

The analysis demonstrates the heuristic and methodological value of discursive institutionalism in regard to money and complementary currencies, and highlights how regulatory and legal definitions even of conventional money lack the coherence and clarity required to appropriately explicate monetary innovation. Accordingly, the paper concludes with recommendations for monetary theory, policy and research that can address the current inconsistencies.

1 Introduction and theoretical framing

A broad practice of non-governmental monetary systems has existed in parallel to mainstream money throughout large parts of history (Martin, 2014, chap. 4). Although for most parts, these have been thinly spread, fragmented and consequently seen as marginal and continue to be hardly visible to the contemporary public. Advances in information technology in the 1980s have led to a faster spread of ideas and implementation tools, which ultimately coalesced under the unifying term 'complementary currencies' (hereafter abbreviated to CCs) used as a common identifier amongst practitioners and researchers around the world (Blanc, 2011; CCIA, 2015b, p. 33). Cryptocurrencies fall within this field, along with so-called 'local currencies', 'time banks', tradeable loyalty systems, business-to-business currencies and many more.

While many complementary currencies are deliberately designed for the benefit of the disenfranchised, they are not only hampered by public ignorance about the concept and practice of money, but actually threatened by the ambiguity of what money is in legal terms. For example, Will Ruddick, currency innovator in Kenya, and his collaborators found themselves imprisoned just ahead of the launch of the Bangla Pesa (Ruddick, Richards and Bendell, 2015). The charges of forgery, which were based on the impression of local law enforcement personnel that the private issuance of something akin to money must be illegal, were later dropped. Other examples, none so dramatic but all hampering, constantly occur where currency innovation meets mainstream legal interpretations of money (compare Bindewald, 2018, chap. 8.2).

Common to all these cases is that the dominant discourse of money, as established by the media, financial regulators, and the law, is ambiguous in its definitions. The conceptual under-determination of money also appears in the different and sometimes conflicting framings of money and currency employed by different practitioners and approaches even in the field of CCs themselves (CCIA, 2015a). Yet with no coherent theoretic frameworks to understand all kinds of CCs along with conventional currencies such as the Pound Sterling, the US Dollar or the Euro, the contributions that novel monetary practices make to theory, and as tools for systemic financial change and sustainable development, remain under-appreciated.

1.1 Social constructivism and institutional theories of money

The challenges of electronic payment methods and privately issued complementary currencies, many of which do exist in digital form only, require monetary theory to move on from the dichotomy of metalist and chartalist theories (see Bindewald, 2018, chap. 2.3). Logically common to both strands of theory, even if unacknowledged, is the social construction of meaning and value which any for or money relies on. This can even be shown for what is called “intrinsic value” attributed to gold (Bindewald, 2018, pp. 30-32).

Institutionalism has been a school of thought in economics since the early 20th century, that is commensurable with a social constructivist heuristic. However, despite its long history, the title ‘institution’ has not fully shed its double lexicographic meaning, both in everyday and expert use. On the one hand, which reflects its common use in everyday parlance, an institution refers to an “organisation for a religious, educational, professional, or social purpose”, whereas in the second, related but broader and less tangible meaning, it describes “an established law or practice” (Oxford Dictionary, 2017). This ambiguity can also be found in the usage of the descriptor ‘institutional’ in theories of money that emerge particularly towards the end of the 20th century. This ambiguity introduces such a broad meaning to the idea of institutionalism that it can even be seen as self-evident, and the distinction between institutional economics and any other form of economics would seem futile (Hamilton, 1962). This ambiguity can also be observed when closely scrutinising so called institutional theories of money (for a detailed analysis of historic and recent theories, including a critique of John Searle’s concept of “social facts” in regards to money, see Bindewald 2018, chap. 3.1).

From the 1970s lines of inquiry that were focused on rules and norms that govern individual behaviour started to be called ‘new institutionalism’ (Phillips, Lawrence and Hardy, 2004, p. 637). This extended from the economic disciplines into schools of thought in sociology that took an analytical interest in the emergence and interaction of different social constellations (Hodgson, 2000). In this new or neo-institutionalism the ambiguity of what an institution is was to a large degree resolved as the focus was no longer on the static organisation but the process that makes such organisation (or any other structure) possible (Hollingsworth, 2011, p. 602). The focus of institutional research was not the organisation itself but “the rules of the game in a society or more formally [...] the humanly devised constraints that shape human interaction.” (North, 1990, p. 3)

1.2 Discursive institutionalism

The explicit integration of concepts of discourse into institutional theory is found in the writings of Vivien Schmidt (2008) and a paper by Nelson Phillips et al. (2004). Only Schmidt has pursued the idea in following publications. The development of the concept of discursive institutionalism will here be developed from her writings.

Schmidt observed that neo-institutionalism had, so far, been successful with the description of what and how institutions are, but without a comprehensive and applicable theory of how institutions change (Schmidt, 2010). Particularly when they are seen to be created by the interactions of many individuals that all bring their particular sets of preferences and are interlaced with a multitude of other structures, institutions appear in constant flux. In the three contemporary strands of neo-institutionalism - rational choice institutionalism, historical institutionalism and sociological institutionalism (Hall and Taylor, 1996) - she found an increasing interest in the adaptivity of institutions to changing environmental or contextual conditions. To those three Schmidt proposed to add a fourth neo-institutional way of conceptualising and studying institutions: ‘discursive institutionalism’. Discourse, to her,

> *“encompasses not only the substantive content of ideas but also the interactive processes by which ideas are conveyed. Discourse is not just ideas or “text” (what is said) but also context (where, when, how, and why it was said). The term refers not only to structure (what is said, or where and how) but also to agency (who said what to whom)” (Schmidt, 2008, p. 305).*

Thus, institutions themselves do not only depend on language but become just as much discursive in nature, and open to change, as the statements they consist of. The concept of discursive institutionalism will here be applied to the concept of money in all its instantiations. In particular the practices of complementary currencies can be seen to manifest institutional change to money in general, if only in marginal ways when compared to the dominance of conventional forms of money.

The ‘discursive’ element of this framework relates to the foundation of institutions in language. Like language, money and currencies are not static but are malleable or in flux; they are collectively construed phenomena and are contextually contingent. This is more easily grasped in relation to the abstract concept of money than in relation to, for example, a concrete currency like Pound Sterling that has material correlates such as notes and coins. While the institutional framing provides answers to the question of what ‘money’ is, a discursive approach to institutions is aimed at elucidating ‘how’ it is and how ‘it becomes’.

The word discourse is here used with the double meaning that Norman Fairclough, one of the founding fathers of critical discourse analysis (CDA) called “a ‘felicitous ambiguity’: it refers to both, what people are doing on a particular occasion, or what people habitually do given a certain sort of occasion”

(Fairclough, 1989, p. 28). The former, which is how the word is used in the narrower, everyday language, refers to the individual events, like conversations or debates, individual texts and publications, and also, as will be explained later, non-verbal expressions. The latter refers to discourse in a wider, conceptual sense, in which it constitutes the substrate of the social world and its formations and structures (see Bindewald 2018, chap. 4.2). The idea of 'habituality' also bears the foundation common to social constructivism and institutionalism: it refers to the rules, norms and conventions we create collectively and which then provide the structures by which our behaviour is influenced and appears as conformist, habitual or dissident. Based on this, Fairclough explicates:

> *"A social institution is an apparatus of verbal interaction, or an 'order of discourse' [...] It is, I suggest, necessary to see the institution as simultaneously facilitating and constraining the social action of its members: it provides them with a frame for action, without which they could not act, but it thereby constrains them to act within that frame." (Fairclough, 2010, p. 40)*

This framing allows an appraisal of currencies as interdiscursive practices, which are composed of a range of parallel individual discourses. One of those, the discourse of 'money as we know it', is so dominant and influential that it can be seen as 'hegemonic' over the practice of complementary currencies, in the sense that it constrains the productivity and creativity of the wider discourse by "naturalising" a certain positions and rendering it "commonsensical" (Fairclough, 2010, p. 129), and leaving other positions to be seen as aberrant and possibly illegal.

2 The blindspot of money in the law

When it comes to concise definitions of money, economists commonly refer to the legal discipline for reference (Bholat, Grant and Thomas, 2015). The economists' account of money issuance by conventional banks (compare McLeay, Radia and Thomas, 2014a) and the appraisal of complementary currencies as money or not, hinges on the question of what the law considers to be money and how it defines currency. During a three month research placement at a law firm in Oakland, California, this assumption has been tested for the laws and regulations of the United States and the state of California - and found to be incorrect.

Even in this particularly authoritative discourse of 'the law' the definitions of both 'money' and 'currency' were found to be ambiguous and unable to encompass even the 20th century technological innovations in payment systems - let alone the 21st century practices of complementary currencies. In legal text books the two terms are defined in a way that suggest them being legally synonymous (compare Gillette, Scott and Schwartz, 2007, p. 1). This is substantiate by the definition of 'money' in the US Uniform Commercial Code (UCC) which reads: "a medium of exchange authorised or adopted by a domestic or foreign government"; and different forms of payment other then cash, such as cheques, debit and credit cards, as being only "money substitutes" (Gillette, Scott and Schwartz, 2007, p. 1).

This line of argumentation means that the term 'medium of exchange' in the UCC is to mean only notes and coins, which of course contradicts both the everyday experience of using our electronic bank balances to pay for goods and services, as well as other expert readings on the matter (compare Yang, 2007, p. 201 and Huber 2016, 2017) and means that electronic bank balances are money to anybody but the legal profession. Yet, Gillette et al. uphold this reading, and its inherent difficulties, by asserting that in law 'money' is really only considered to be cash by juxtaposing it with their reading of the economics literature, where they say that 'money' "has a broader definition: it consists of whatever is accepted in exchange for goods and services." (Gillette, Scott and Schwartz, 2007, p. 1; compare also Fox, 2011, p. 146).

This narrow equation of money and currency aligns with the Code of Federal Regulation (CFR) that defines "currency" as: "The coin and paper money of the United States or of any other country that is designated as legal tender and that circulates and is customarily used and accepted as a medium of exchange in the country of issuance. Currency includes U.S. silver certificates, U.S. notes and Federal Reserve notes. Currency also includes official foreign bank notes that are customarily used and accepted as a medium of exchange in a foreign country." (CFR § 1010.100 (m), see Code of Federal Regulations, 2017). This definition of currency as the tangible forms of money (notes and coins) is echoed also be the explicit definitions of the Bank of England discussed in the next section (see McLeay, Radia and Thomas, 2014b, p. 12).

However, other laws of the United States, present a very different and very broad definition of money. One example to mention here as representative for wider range of results of this kind (see Bindewald 2018, chap. 7) are the federal "money transmission statutes". In their wording they do not speak of 'money' at all, but define services that require such "money transmitter licensing" as those involved in "the transmission of currency, funds, or other value that substitutes for currency [...] by any means" (31 CFR § 1010.100 (ff)(5)(i)(A), see Code of Federal Regulations, 2017). The legal definition of currency as found above (notes and coins) is here obviously not adhered to. Because the transport of cash - which constitutes the most tangible and historically predominant form of "money transmission" - is explicitly excluded in a sub-clause of the same statute: "The term "money transmitter" shall not include a person that only [...] physically transports currency, other monetary instruments, other commercial paper, or other value that substitutes for currency" (31 CFR § 1010.100 (ff)(5)(ii)(D), see Code of Federal Regulations, 2017). What is left then of forms of money that might be covered in this transmission statute must be electronic ones, which is made explicit in their defintion of the term 'transmission': "[By] "Any means" includes, but is not limited to [...], an electronic funds transfer network" (31 CFR § 1010.100 (ff)(5)(i)(A), see Code of Federal Regulations, 2017). In line with this, the word 'funds' is explicitly defined by the Electronic Fund Transfer Act of 1978 as "a number of electronic payments" (31 CFR § 1010.100 (w), see Code of Federal Regulations, 2017). However, particularly the term "other values" seems to leave an option for including the transfer of absolutely anything valuable to fall under the 'money transmission' regulation, including, but not limited to, such "currencies" as Bitcoin (for a discussion of the contemporary regulation of so called 'digital currencies' in the US see Bindewald 2018, chap. 7.2).

All the above indicates that the terms 'money' and 'currency' are, in current legislation not sufficiently defined to mark any discernible difference. Or, if one would take the statute's content literally, the name 'money transmission act' would for example be a misnomer and would better be changed to "something-valuable-other-than-cash transmitter legislation".

Thus it appears that legal positions falsely assume that only economists have a wider understanding of the term money, and at the same time, economists assume that the legal profession has a clear definition. What this study of the 'money' related legislation has revealed is that both are incorrect. If the narrow position of "money equals currency" and "currency equals notes and coins" were to be followed consequently, namely that both are only what state institutions like the FED, the US treasury or mint can issue, it would not only have radical ramifications for complementary currencies, but also for the status of electronic bank balances: they would not be money in the legal sense. Indeed, with the small amount of notes and coins that are in existence when compared to the amount of electronic bank balances, there would be hardly any money in existence in the world.

The situation of terminological ambiguities that are here demonstrated in the law of the USA were also confirmed for the law in the UK by a study conducted by linguist and barrister Dr. Kate Harrington (Harrington, 2017). She finds that, even if conventional money today comes mostly in electronic or virtual forms, "the language of the tangible will still creep in and they [the laws] will still use the words "cash" or "money" in their name" (2017, p. 286). She is adamant that: "Money must, for legal purposes, have a very specific meaning as the definition in its particular legal situations must necessarily determine often complex disputes as well as regulate the smooth working of commercial and domestic lives" (2017, p. 288). However, the situation in the law of the UK, as in the US, is to the contrary: "money in law is difficult to define: it can encompass almost every common meaning or it may equate to none" (Harrington, 2017, p. 303).

3 Bank-talk and the grammar of institutions

The very language used by regulators to define 'money' has the power to "define potentials, sets of possibilities" - which is the phrase Norman Fairclough uses to describe the attributes and importance of language in general (Fairclough, 2010, p. 294). Or as a former governor of the Bank of England once said: "Habits of speech not only reflect habits of thinking, they influence them too. So the way in which central banks talk about money is important." (King, 2002, p. 174)

Consequently, another part of the PhD thesis analysed the communications of the Bank of England to their definitions of money and currency. Today, the communication efforts of central banks are seen as being on a par with their other, more obviously monetary or financial activities. In a play on words to 'open market operations' - the buying and selling of government bonds to regulate asset prices and the amount of money in the economy – Guthrie and Wright (2000) speak of modern central bank communications as "open mouth policies" and hold them as being just as potent as their traditional policy tools. With this change in practice a plethora of literature has emerged addressing the questions of how much and what kind of communication activities constitute "optimal communication policies" for central banks (Blinder, 2008, p. 26).

This genre that Karl (2013) calls "Bank Talk" has been identified to have strong performative elements with an "ontology and tendencies [...] akin to those of fiction" (Karl, 2013; see also Dodd, 2014, p. 16). Holmes (2014), having studied the communications of different central banks for over 15 years, even likens it to public drama, storytelling and ritual (pp. 8, 25).

Here, an analysis of what Bank of England authors say about the nature of money and currency - and the relation between these two terms – was conducted applying the "grammar of institutions" methodology developed by Sue Crawford and Elinor Ostrom (1995). Their robust and flexible way of codifying an institution will be applied to parse the statements of 'what money is' in the texts of Bank of England. They define any institution as an arrangement of what they call "institutional statements" (p. 583), which come in the three forms: *shared strategies*, *norms* and *rules*. They distinguish between them with a logic syntax of five linguistic building blocks or "phrasemarkers": 1) *attributes*, 2) *deontic*, 3) *aims*, 4) *conditions* and 5) an *or-else* element (see Table 1, adapted from Crawford and Ostrom, 1995, p.584):

Tab. 1: The syntax elements of the grammar of institutions

A	*Attributes*	a holder for any value of a participant-level variable that distinguishes to whom the institutional statement applies (e.g., 18 years of age, female, college-educated, 1-year experience, or a specific position, such as employee or supervisor).
D	*Deontic*	a holder for the three modal verbs using deontic logic: may (permitted), must (obliged), and must not (forbidden).
I	*Aim*	a holder that describes particular actions or outcomes to which the *deontic* is assigned.
C	*Conditions*	a holder for those variables which define when, where, how, and to what extent an *aim* is permitted, obligatory, or forbidden.
O	*Or-else*	a holder for those variables which define the sanctions to be imposed for not following a *rule*.

All three institutional statements are made up of some or all of these elements and at the very least contain three of them, namely the *attributes*, *aim* and *conditions*. If only those three are present, the statement falls into the category of a *shared strategy*. If, in addition to them, the fourth element, the *deontic*, can be identified in the text, the statement is a *norm*. Finally, a *rule* contains all five elements including an *or-else* (compare Figure 1).

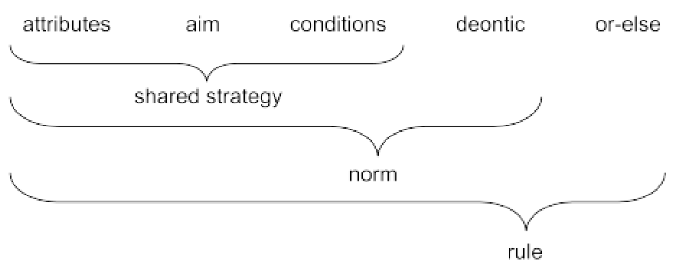


Fig. 1: The syntax elements of strategies, norms and rules in the grammar of institutions

The starting point for the proposal of the grammar of institutions was for Crawford and Ostrom: "We presume that most rule systems are incomplete." (Crawford and Ostrom, 1995, p. 596) and their hope with the introduction of the methodological tenacity here presented is that "the rigor of the logic-based system disciplines discourse by making inconsistencies more apparent" (Crawford and Ostrom, 1995, p. 596).

3.1 Norms, not rules – and a golden mirage

A set of 30 publicly available publications of Bank of England (chosen from a out of a candidate corpus of 149 publications) were analysed in detail with the grammar of institutions methodology (for description of data selection, analytical process and dcomprehensive results see chapter 6.3 and the appendix in Bindewald, 2018). All passages that spoke in a descriptive or definitory manner about what money, currency or related terms are, were highlighted and extracted as "constitutive statements". The quantitative results of this process showed a notable increase of statements about the nature of money and currency from 2013. Nearly 80% of all statements found in this corpus spanning 47 years of Bank of England publications were published in the past 5 years, between 2013 and 2017, with a marked gap of no publications that matched the selection criteria between the years 2009 and 2013. The onset of this increase in statements about the nature of 'money' and currency correlated with a Quarterly Bulletin article on complementary currencies (Naqvi and Southgate, 2013). This appears to be coherent with one of the starting observations of this paper, namely that an resurgence of interest in the nature of money would have started with the popularity of some complementary currencies around that same time. A total of 170 statements from 17 publications were parsed into their "grammatical" elements according to the grammar of institutions (*attribute, deontic, aim, condition, or-else*).

Across the 170 statements analysed, 39 *strategies,* 118 *norms* and 13 *rules* were found. It seems surprising to find so few statements of the institutional form of *rules* in the texts of the Bank of England. An archetypal statement that constitutes a *rul*e would be a law that describes what someone (the *attribute*) is to do or must not do (the *deontic*) when engaging in a certain activity or pursuing a certain objective (the a*im*) under certain circumstances (the *condition*), and what happens if this law is not followed, e.g. a fine (the *or-else*). However, there are no statements of that form in the texts analysed. What has been defined as *rules* here are statements that at least make reference to laws in what they describe so that consequences of breaking them can be expected. Therefore, the *or-els*e elements in the *rules* found in these Bank of England texts mostly come in the form of "or else the law is broken". Other *rules* here found do not refer to a concise legal text but use the expressions "legally", "obligated" or "are regulated" to allude to concrete laws that would bear legal consequences if not observed.

Within the predominant set of *norms* (118 out of 170 statements) found in the corpus of Bank of Enlgand publications, 72 were here assigned to this category because of their deontic elemtent expressed as some form of “it is defined” statement. Hence, the validity of norms in this particular discourse was sufficiently affirmed by the authority of the Bank’s authors stating a definition of one form or another. The process of parsing definitions of money and currency according to the grammar of institutions did not only reveal the logic by which the Bank of England describes and defines ‘money’, but also allowed for a clearer appraisal of the content of these statements. One example will be presented here. The texts here analysed represent a prolific era of more explicit communications on the topic with many cross-references to each other. Apart from the 2013 Quarterly Bulletin on the Bank’s policy mandates on so called local currency (Naqvi and Southgate, 2013), the defining moment both for this current era of texts and for the definition of the conventional money of today came in 2014 when the first Quarterly Bulletin of the year included two papers titled “Money in the modern economy - An introduction” (McLeay, Radia and Thomas, 2014b) and “Money creation in the modern economy” (McLeay, Radia and Thomas, 2014a). The message of the latter was epitomised by a tweet from the Bank of England account at the time of its publication: “97% of broad money takes the form of bank deposits – which are created by commercial banks” (Bank of England, 2014a). It captured the attention and excitement of economic commentators in the Financial Times and the Guardian with catch headlines like “Strip private banks of their power to create money” (Wolf, 2014) and “The truth is out: money is just an IOU, and the banks are rolling in it” (Graeber, 2014).

However, it is the former of the two articles that is of interest here. Instead of rehashing ‘what’ the Bank of England says about money in that article, the focus here is more on ‘how’ they say it. According to the hypothesis of ‘money as a discursive institution’, the two are necessarily related. What they deem ’money’ is expressed in the core section in that bulletin article: “money today is a special type of IOU. To understand that further, it is useful to consider some of the different types of money that circulate in a modern economy - each type representing IOUs between different groups of people” (McLeay, Radia and Thomas, 2014b, p. 7). On the one hand, money is here not defined in itself but presented as a subset of a bigger concept, that of the quasi legalistic idea of an IOU (short for “I owe you”). Thus, conventional money is introduced as a multitude. Three different ‘types’ of money are said to exist - ‘central bank reserves’, ‘fiat currency’ and so called ‘bank deposits’ - which are then exemplified. In terms of logic however, the way this is explained amounts to circular reasoning of the ‘*petitio principii*’ kind: money is claimed to be an IOU, but to substantiate this claim different types of IOUs are used as illustrations of money - as if the claim had been self evidently true from the beginning. This circularity is also evident in the following quote in the same section of the paper: “[money] is a special kind of IOU: in particular, money in the modern economy is an IOU that everyone in the economy trusts. Because everyone trusts in money, they are happy to accept it” (McLeay, Radia and Thomas, 2014b, p. 7) - ergo: money is an IOU that everybody trusts, and because everybody trusts money, they trust the IOU.

As with the findings on norms above, the authority that allows for such fallacious arguments to pass as reliable definitions rests on the position that the Bank of England has in the wider discourse of money and finance. One more spotlight is here to be pointed at the particularity and precariousness of this position. One curious aspect of the Bank's communication on the topic of money immediately stands out to the critical reader: the recurrence of references to gold. Of course, in the history and popular discourse of money, gold is one of its main "ingredients". It takes centre stage in the numismatic displays of museums, it has the lead role in the "myth of barter" (Graeber, 2011, chap. 1), it became the bedrock of modern banking in the lending practice of the renaissance goldsmiths (Ryan-Collins *et al.*, 2011), and is of course the epitome of riches and (good) fortune. "Striking gold" is as much the Leitmotif for such different historic and literary protagonists as pirates, prospectors, conquistadores - as it is most anybody's private dream.

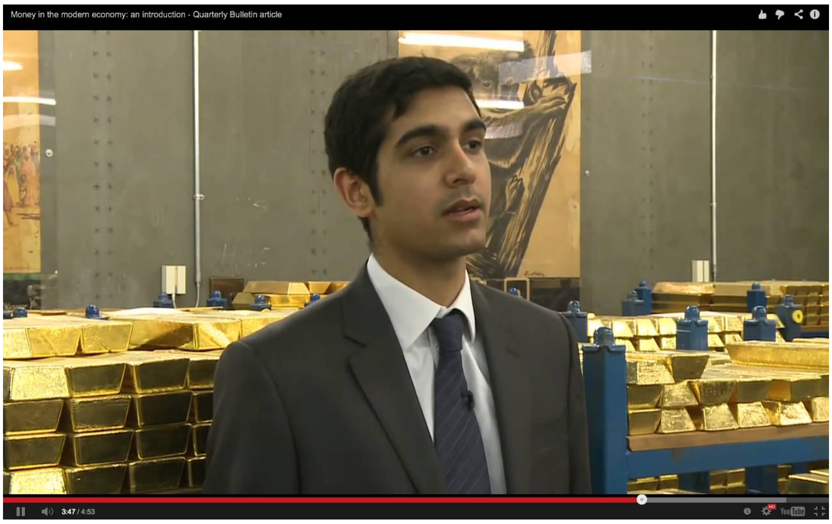


Fig. 2: Screenshot of the Bank of England's summary video (https://www.youtube.com/watch?v=ziTE32hiWdk)

And yet, it is surprising that in the paper "Money in the modern economy: An introduction", discussed in the previous section, gold is mentioned on all but one page (page 11), and in several places its merits and advantages are discussed. Finally however, half way through the paper, it is stated - in bold - that "Since 1931, Bank of England money has been fiat money. Fiat or 'paper' money is money that is not convertible to any other asset (such as gold or other commodities)." (McLeay, Radia and Thomas, 2014b, p. 8) The discussion of gold in the course of the article, as much as it is irrelevant for what money is today, appears like an echo of the past. Money today has nothing to do with it - "And yet somewhere in our imaginary landscapes gold is still the hallmark of all that is valuable." (Mooney and Sifaki, 2017, p. 20)

What is more, when the Bank summarises this technical article in a sub-5-minute video on their YouTube Channel (Bank of England, 2014b), apparently in line with their new communications strategy to carry the message of their research into a broader audience - gold is again all around, literally. The interview with the lead author of the article is shot in the vaults of the Bank of England, with successive rows of shelves laden with bullion, filling half of the frame at all times (see Figure 2). The visual message seems to supersede the explicit point made in the article. In the interview, the venue is mentioned, right in the opening question along with the fact that "for some periods, historically, money could be converted at the bank into gold". Yet the interview is then turned towards the question of why one would use any kind of money at all and the disclaimer, that banknotes cannot be exchanged any more for gold is delivered only half way through the video (at 2:46min). What all the gold bullions seen throughout the interview have to do with the topic itself, is not mentioned in the video. An article in the following Quarterly Bulletin (Q2 2014) (dis-)spells it explicitly: "The Bank is one of the largest custodians of gold in the world, with over 400,000 gold bars stored in its vaults. Safe custody is provided for customers including the UK Government and overseas central banks." (Manning, 2014, p. 129) In fact, the Bank of England itself legally owns only one bar of gold: "It's in the museum, and you can touch it." - as the author of this paper was told personally during a research visit.

So why is gold still ever present? One answer can be found in the mandate of the Bank of England to ensure monetary stability (see Gray, 2006, p. 54). This in turn requires the Bank to ensure "that people are confident that the banknotes they hold are worth their face value" (Naqvi and Southgate, 2013, p. 232). In light of this prerogative the gold in the vaults, even if unrelated to those very banknotes, still serves a purpose. Even the creation of the illusion of solidity, reliability and gravitas, all with a golden hue, is part the Bank's fulfilment of its policy objectives, achieved by communication tools and with the collaboration of other powerful institutions. And the ultimate addressee of those measures is everyone. Not only the Queen's subjects in the UK, but because of the weight of the UK economy and the Pound in the international markets, people all around the world depend, more or less heavily, on the maintenance of this golden mirage. Because, as the Bank asks on a part of its website: "So what gives modern banknotes their face value? Trust." (Bank of England, 2016).

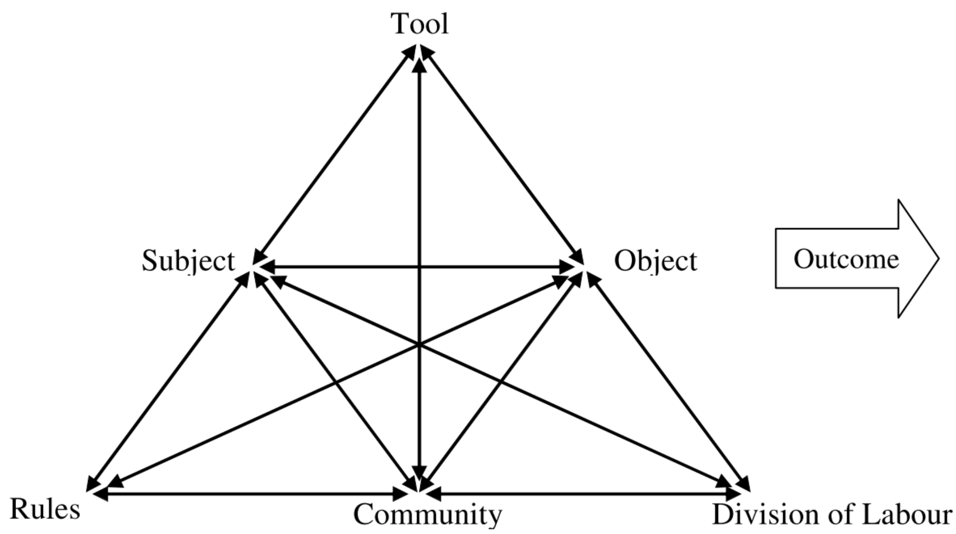
This makes the novel Bank of England communication strategy and its simplifications in regards to the nature of money even more problematic. Holmes introduces the term "public currency": not in the meaning of the public being involved in determining their preferred kind of money (or currencies), but in the performative sense that monetary policy today requires the public's 'buy-in' to maintain confidence in the national currency. Every measure, authority and any story, as far removed from today's banking practice, legal clarity or common sense as it may be, may be recruited to that end: "At the heart of [the idea of a 'public currency'] is a far-reaching premise: the public broadly must be recruited to collaborate with central banks in achieving the ends of monetary policy, namely "stable prices and confidence in the currency."" (Holmes, 2014, p. 16)

The discursive framing of money here applied reveals this to be a discrepancy or even conflict for a central bank's mandate. On the one hand, they are to ensure the stability of the national currency which rests to a large degree on the confidence and trust that the public and financial market actors place in it. However, in the absence of robust definitions of money, even in the law, the framing, analogies and imagery used to engage lay and expert audiences can be seen as inconsistent or even obfuscating. In general the move of central banks towards transparency and making information more accessible for all audiences needs to be lauded. Oversimplification and the adherence to outdated stories however can also be seen as a form window dressing that might ultimately have adverse effects on the long term stability and adaptability of the financial system - particularly when the questions about the nature of money posed by phenomena like complementary currencies cannot be answered satisfactorily.

4 A CHAT analysis of CCs as discursive institutions

In light of the inconsistencies and uncertainties of authoritative definitions of money and currency, the framing of discursive institutionalism offer an opportunity to describe currencies, conventional and complementary, independent of categories of, or references to, money. To this end, the thesis here presented applied the methodology of "critical historic activity theory" (CHAT). The starting point of what is today referred to as activity theory, was Yrjö Engeström's work on learning in developmental psychology. He expanded a previously model by Lev Semenovich Vygotsky (Foot, 2014), which today is iconoically represented as triangle with six elements (see Figure 3): subject, tool, object, rules, division of labour and community. Apart from these constituent elements, an activity system has an effect on its context which Engeström later denoted as the 'outcome' (Engeström, 2003, p. 68). This is different from the *object* within the activity system itself. While the activity system as a whole can be seen to be oriented towards the achievement of a certain outcome, the individual(s) involved within a given activity system are motivated by their individual *objects*, which might be in conflict with each other (Nicolini, 2012, p.110).

Fig. 3: Engström's extended activity theory model (from Hashim and Jones, 2007, p. 5)



This model has been applied to various sociocultural phenomena, from the personal, to the interpersonal and the organisational. What is identified as the '*subject*', and with it the *objects* and *tools*, depends on the chosen unit of analysis. The *subject* can be a single individual (compare Engeström, 1995, p. 366) or an entity at a higher system level, like an organisation (Yamagata-Lynch, 2010, p. 24). The *tools* that mediate the actions within an activity system are not restricted to material phenomena, but include conceptual devices. The *subject*'s actions in an activity system perspective are facilitated through discourse vehicles, including both language and deeds. "Language, protocols, scientific methods and models, and other forms of cultural artifacts are just as much *tools* as are hammers, computers, and phones." (Foot, 2014, p. 331)

The other element of *tool*-mediated actions in the CHAT model relate to actors around a chosen *subject* and how they influence or co-determine actions. Those actors appear in Engeström's model as the '*community'* which can be understood as similar to what elsewhere is called 'stakeholders'. Where the unit of analysis is an individual, this *community* would typically consist of other individuals, but can also extend to organisation or institutions (compare Engeström and Escalante, 1995, p. 366). Where the *subject* of an activity system is a group of individuals or an organisation, the elements in the *community* component would typically comprise of elements of a similar nature (compare Engeström, 1999, p. 31). The relations between the *subject* and the elements of its *community* are described in the bottom-corner components of the triangular model: the *rules* and the *division of labour*. In close analogy to the use of the term in neo-institutional theory (Miettinen and Virkkunen, 2005), what is here called *rules* "refer to the explicit and implicit norms, regulations and conventions that constrain actions and interactions within an activity system" (Engeström, 2003, p. 67). They concern as much the interactions between the *subject* and other participants of the *community* as the *subject*'s pursuit of the *object* (Foot, 2014, p. 331). The *division of labour* first of all denotes who among the *community* is doing what in regards to that pursual, but also elucidates the power relations that determine this allocation of tasks between the *subject* and the *community* (Engeström, 2003, p. 67).

Here, the individual currency initiative is the focus of the analysis. In the complete PhD thesis, the application of CHAT to currency initiatives has been demonstrated on four examples: the Dane County TimeBank (Madison, Wisconsin), the Brixton Pound (London, UK), Sardex (Sardinia, Italy) and Bitcoin (see Bindewald 2018, chap. 5.3). With this analysis the *subject* of the activity system is the entity that is conventionally identified as the 'issuer' of a given currency. Following the definition of the CCIA project, issuance is here seen to comprise of three sets of rules: 1) those that define the factors by which the maximum amount of currency in circulation is determined 2) the mechanism by which the currency is brought into circulation, and 3) the governance system that enforces, sustains or can change these rules. Any entity, be it informal, private or public, can be posited as the *subject* of a currency activity system. Furthermore, as complementary currencies are here seen as all currencies other than conventional money, this analysis can be easily extended to phenomena elsewhere often excluded from the field of complementary currencies because of the state's involvement, such as for example the debt cancellation bills called 'patacones' that were issued by the finance ministries of several states in Argentina between 1984 and 2003 (Scott Cato, 2006; Kalinowski *et al.*, 2017) the IOUs briefly issued by the state of California in 2009 (Clark, 2009), or the Special Drawing Rights of the IMF (Mundell, 2005, p. 468; Williamson, 2009; European Central Bank, 2015, p. 31).

This framing of the *subjec*t in the CHAT application to currency initiatives also has a direct bearing on what will here be considered the *community* of the activity system as in the elements considered 'significant others'. Depending on what legal, organisational and operational form the *subject* takes, the *community* closely resembles what is elsewhere called the 'stakeholders' in a currency initiative, or the "organisations, individuals and entities that have direct interests in a currency's operation", apart from those that would here be included in the *subject* element (CCIA, 2015b, p. 70). This includes the users of a currency, the funders, idealistic supporters and advocates, partnering organisations or entities including but not limited to other currency initiatives, but also financial regulators and public bodies. It is in this element of the CHAT model that the territorial or sectorial boundaries, that are often described as one of the defining feature of a currency initiative, will be reflected on (compare Blanc, 2011, pp. 6–7; Schröder, Miyazaki and Fare, 2011, p. 33; Schröder, 2017, p. 5). As the delimitation of the *community* here can be based as much on territorial factors as on a certain sector, need, intention or even ideology, the CHAT modelling of community currencies remains commensurable with the idea of "special purpose" money derived from Karl Polanyi's distinctions of realms of exchange (Blanc, 2011; Seyfang and Longhurst, 2013; Degens, 2016).

This also has bearings on the next element of the CHAT model, the *object*. Different from conventional money that economists assume to be a neutral 'medium of exchange' without any particular objectives or purposes (Ingham, 1996), a 'special purpose' quality is implicitly or explicitly assigned to complementary currencies. The wide variety of purposes pursued by currency initiatives have been described individually for specific contexts like regional development (North, 2010), social policy

(Gregory, 2009) or economic regeneration (Greco, 2013). These also encompasse the simplest form of purposes designated by the intended use of a currency by a given geographical community, an idea implicit in the term 'local currency' (Seyfang, 2007; Seyfang and Longhurst, 2012; Mauldin, 2015).

The intended user groups and objectives along with the available technology in turn determine the mediating *tools* deployed by the currency initiative. This element is where what is conventionally described as the 'transaction media' of a currency is described (CCIA, 2015b, p. 101). It includes material tools like notes, cheques, coins or tokens, but also payment cards, point of sale instruments, web tools, apps and other means that enable the adoption and use of a currency. Beyond the elements that could be identified as 'the currency' itself in its material, electronic or conceptual manifestations, *tools* here also include physical spaces that have a function in the activity system, and the programmes and communication campaigns that an initiative might conduct to promote the use of their currency. In this sense exchange points, offices, retail outlets, trade fairs, events, promotional leaflets and brochures, social media channels, brokerage services and projects set up and run by the initiative are included in the *tools* element of the CHAT model. Therefore, this methodology to describe a complementary currency initiative transcends the focus or even identification of a given currency with its transaction medium, issuance mechanism or technology.

The particulars of the *object, community* and *tools* elements of the CHAT model as applied to a currency initiative are all determined by the rules and conventions that the entity or entities identified as the *subject* of these activity systems agree, propagate and uphold. These rules, explicitly published for example in the user terms and conditions or in promotional material, or implicitly established in the operation of a currency initiative, will here be presented in the CHAT element *rules*. These concern, as was mentioned above, the issuance mechanism of the currency, including, where applicable, credit limits, security measures, and redemption options and liabilities, but also who is allowed to or encouraged to make use of the currency. It is by these *rules*, that complementary currencies establish what was described as their effects in comparison to conventional money: they "substantially re-cast a number of money's meanings: It implies different relationships between buyers and sellers; creates the possibility for different kinds of transactions; ties users to local rather than to national economies and simultaneously enhances some exchanges while restricting others" (Schussman, 2005, p. 14). It is this element of *rules*, that makes the CHAT methodology particularly commensurable with the "grammar of institutions" presented and applied in the previous section. With this, complementary currencies and conventional money are here presented as discursive institutions, constituted through sets of rules. Also, in certain aspects, the activity system of a currency initiative is affected by conventional money and the rules that constitute and govern it. This will be of particular interest in the sixth element of the CHAT model: the *division of labour*.

The *division of labour* element of the CHAT model does not describe how tasks and responsibilities are distributed between individuals or subunits of the organisational *subject* when the focus of the activity system analysis is on the organizational level. Rather, what will here be discussed under that term is the way in which the *subject*, in our case the currency initiative, cooperates with different members of its *community* to achieve the activity system's *object (Engeström, 2003, p. 67)*. The idea of 'complementarity' in the description of novel and varied forms of currency already indicates that none of these monetary innovations is intended to replace all other existing forms of currency, including conventional money, but to co-exist with them (Blanc, 2017, p. 240). Hence, all complementary currency activity systems leave a role for conventional money and potentially other currencies and most of them rely on conventional money to operate (Schröder, 2015) and to allow their users to access services that are not available with one currency alone. Subsequently, the *division of labour* includes the role of funders and investors. However, it also includes the support of advocates and project partners that provide communications, awareness raising and operational interfaces between a complementary currency system and the potential users and other stakeholders.

4.1 The practice of CCs: a topology

The so called "third generation of CHAT" (Engeström, 2001) operates at the interplay between activity systems and how they constitute and influence larger systems or practices. In the third generation model, the *objects* of individual activity systems contribute to "a potentially shared or jointly constructed *object"* [here *object* 3 in Figure 4] (Engeström, 2001, p. 136) which pertains to a larger structure of practice. With this extended model, CHAT enables the operationalising of a theory of 'practice' that encompasses societal phenomena at all levels "as a multi layered network of interconnected activity systems and less as a pyramid of rigid structures dependent on a single center [sic] of power." (Engeström, 1999, p. 36) With this extension, the application of CHAT to CC initiatives can also offer insights into the shared objects of the field of complementary currencies as a practice.

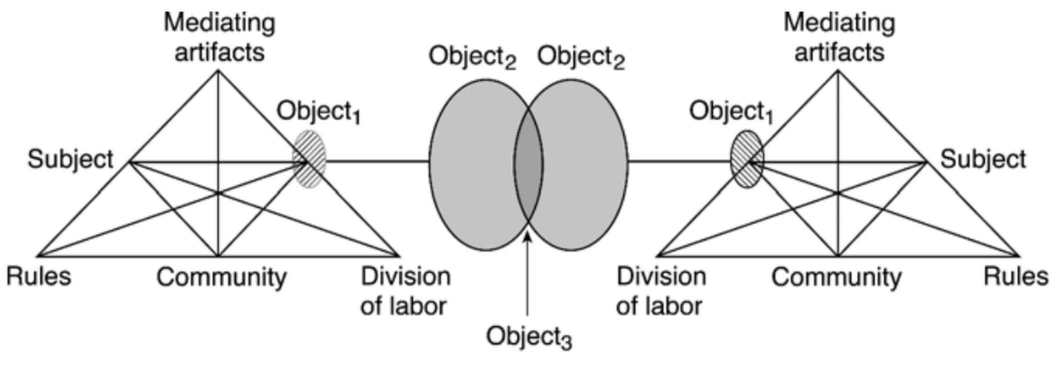


Fig. 4: Two interacting activity systems as minimal model for the third generation of activity theory (from Engström, 2001, p. 136)

Few authors attempt to situate both conventional money and CCs in inclusive conceptual frameworks employing explicit institutional theories. CCs are then represented under the multiplistic, and hence more open term, “moneys” (Gómez, 2015) or “monies” (Lietaer, 2004; Martignoni, 2012; Blanc, 2017). In this case, the terms ‘currency’ and ‘money’ again appear as parallel and often overlapping or even synonymous categories and distinctions are drawn not only between conventional money and complementary currencies, but also within the diversity of currency innovation and initiatives. The first distinction then broadly follows the divide in issuance between nation-state vs non-state entities (Blanc, 2011, p. 6; Martignoni, 2012, p. 2). The second level of distinctions amounts to development of different typologies to structure the phenomena of currency innovations (e.g. in Kennedy and Lietaer, 2004; Mascornick, 2007; Blanc, 2011; Boyle, 2011; Jones, 2011; Martignoni, 2011; Brakken et al., 2012; Collom, 2012; Seyfang and Longhurst, 2013; Place and Bindewald, 2015; Michel and Hudon, 2015; Tichit, Mathonnat and Landivar, 2016; Bendell, 2017). These continuing efforts to deliminate diversity into categories or classes can be seen as necessarily inconclusive considering the emergence of ever new monetary innovations that transcend or fall outside of previous categorisations.

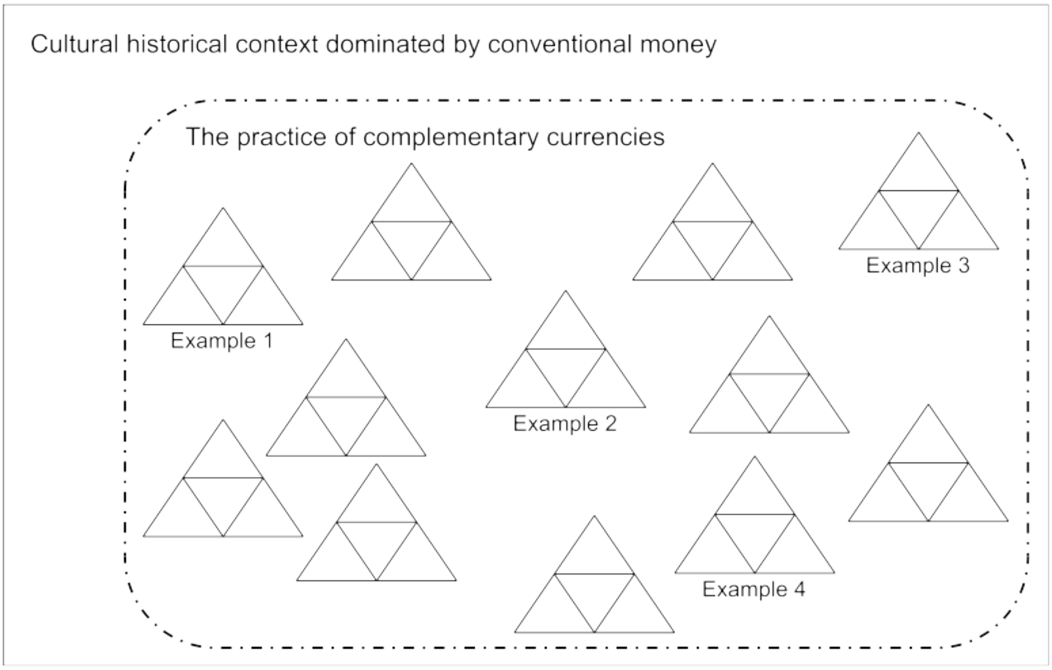


Fig. 5: The practice of complementary currencies as constituted of individual currency initiatives within the context of conventional money.

What is more, the discursive framework here employed sheds a critical light on the way that any expressed typology posits entities and differences as ‘realities’ instead of acknowledging their fluid and socially constructed nature (Warf and Arias, 2009, pp. 1, 7). The application of CHAT to currency initiatives does not attempt to imply or arrive at another typology of complementary currencies, but to provide the description of a continuum of practice in the tradition of the 'topological turn' in philosophy and cultural sciences (see Phillips, 2013). Stemming from the mathematical sub-discipline by the same name, which is concerned with the description of unusual surfaces and spaces (like the three dimensional but one surface only Möbius strip) that do not lend themselves to conventional geometrically assertive mapping, this approach is mindful of the reifying nature of discursive processes that link terms and phenomena by creating 'maps' of categories that can never exhaustively depict the territory (Law, 2000). This approach does not deny the alterity and differences between the elements within a space. The analytical and terminological framework of this thesis would even have it that every single currency is different from the next, despite the commonly used associative classification of, for example, 'timebanks', 'local currencies' or 'crypto- currencies'. In the topological perspective, any set of observed differences between currencies or other phenomena thus constitutes a boundary from which descriptions can be derived (Abbott, 1995).

The analysis of boundaries as a heuristic framework has been employed by Viviana Zelizer and Charles Tilly to create a consistent analytical perspective and implicitly a theory of Money, that more closely connects Zelizer's earlier work on "earmarking" practices with conventional money to the variety of complementary currencies (Zelizer and Tilly, 2006). Rolf Schröder has recently revived this focus on boundaries and "theory of space" (Schröder, 2017, p. 3) to describe the differences between various complementary currency initiatives and derived his own set of relationships and distinctions between them. In an analogous manner, the application of cultural historical activity theory (CHAT) and its constituent elements (*subject, object, tools, rules, community and division-of-labour*) used here allow for an appraisal of differences between complementary currency initiatives, by explicitly viewing them as an innovative practice in relation to a "more or less stable background of other practices" (Nicolini, 2012, p. 5), which in this case is provided by conventional money (compare Figure 5). This allows for the appraisal of currencies as diverse discursive institutions that, seen together as a practice according to the 3rd generation CAHT model, affect changes to the concept of money: "Small changes always occur, large changes embrace and arise from myriad smaller ones, and the difference that any change makes to the world is open until the world responds" (Schatzki, 2011, p. 25).

5 Conclusions and implications

5.1 Coherently speaking: money and currency

The findings presented above demonstrate how a more coherent way of defining money and currency is lacking from the authoritative discourses of economics, financial regulators and the law. The theory of discursive institutionalism has been shown to provides a framework from which new methodological approaches towards the understanding of current monetary practices can be derived. In parallel a more coherent terminology for monetary phenomena was developed during the PhD research project which is commensurable with the theories and findings of this paper and enables the full integration of complementary currencies and conventional money in theory, research and regulation. For a comprehensive account of this terminology see chapters 2.1 and 3.3 in Bindewald, 2018. The basic concept follows here.

To start with, two meanings of the word ‘money’ will be submitted. On the one hand the word refers to ‘money as we know it’, the units we use every day and with which most of us will have been familiar since childhood. In the UK, that is Pound Sterling in its different forms, in other constituencies the same is known by different names like Euro, Dollar or Yen. On the other hand there is ‘money as a concept’, the wider and more elusive idea that seems as familiar and taken-for-granted and yet, if asked about, becomes strange and hard to describe.

To mark this distinction, the capitalisation of the word ‘Money’ will be used to refer to the ‘concept of Money’. This is in direct analogy to the use of capital letters in Platonic idealistic philosophy where a word written with a capital letter refers to the idealistic concept of something, an archetype.The word money with a small m will be used to refer to the particular form or implementation of the general concept of Money that we carry around with us and which probably comes up in our minds when we are asked to picture ‘money’. This distinction is alanlogous, for example, how we do not speak of ‘identity’ when we discuss national passports, or use the word ‘transport’ as synonymous with ‘cars’.

The confusion of the two, money and Money, is one of the heuristic difficulties and epistemological shortcomings in the way ‘money’ is discussed both in everyday language and, as we saw above, also in expert and academic texts. Maintaining the separation of the two, at least when considering questions of ontology, may help resolve the state that some authors describe as “schizophrenic for the most, as we indeed perceive it at once as a universal and a particular” (Sgambati, 2013, p. 6) which this paper argues is an unnecessary state of confusion. We are used to the difference between ideal concepts and real instantiations of many things of everyday life. Extending this awareness in regard to 'money' is a precondition to enable critical engagement and enable change both in theory and practice.

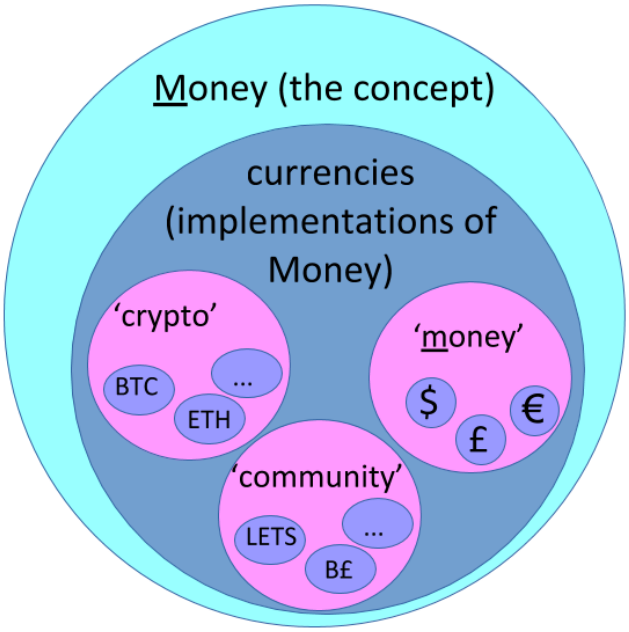
The second step in the development of the terminology at hand concerns the term 'currency'. This is here proposed to refer to any instantiation or implementation of the concept of Money (see Figure 6). However, this term is not free from complications in current use either. Within the practice of complementary currencies, the use of the term 'currency' instead of 'money' leads to what Nigel Dodd found to be "perplexing [...]. Although it merely reflects wider confusions about the nature of ''money'' as opposed to ''currency'' in general" (Dodd, 2005a, p. 406). On the one hand, complementary currency activists have the espoused objective to create a different kind of monetary system or even "reinventing" money (Martignoni, 2012). On the other hand, they often, very deliberately, refuse to describe their innovations as 'money', be it only to avoid financial and tax regulations (Hart, 2001, p. 281 and the author's personal communications with activists in Germany).

In this situation, Dodd argues that "we need new metaphors for thinking about the monetary space as decentred, unbounded, and diffuse." (Dodd, 2014, p. 221). As one of the most important contemporary sociologists on 'money' his use of terminology is instructive in regard to how difficult it is to define a consistent and commensurable terminology on this topic. It merits to have a closer look at Dodd's definitions to appreciate the later suggestions of this paper. In his attempts to provide a clearer terminological definition, he appears to fall for an ambiguity commonly found in the way the term 'currency' is used in everyday and academic discourses. This concerns the synonymous use of the word by itself and the slightly more concise term 'national currency'. In his paper "Reinventing monies in Europe" (2005b) Dodd affirms that "we need to avoid treating money *synonymous* with currency." (Dodd, 2005b, p. 561, see also 2005a, p. 406) For that he proposes to free the word 'money' from its ambiguities by resigning it to Simmel's pure concept that 'money' is simply an idea, a fiction "which can never empirically exist." (Dodd, 2007, p. 275) - or what he found in Weber to be referred to as a "class concept" (Weber, 1949, in Dodd 2005b, p. 572). This is in line with what here had been denoted as 'Money - the concept'.

However, for the second term "currency" Dodd goes on to define: "currency is legal tender within a defined geopolitical space'' (Dodd 2005a, p. 394). This is akin to what was here called 'conventional money' as an instantiation of Money. In this sense, his conclusion "that 'money' [as in Simmel's 'idea' or 'fiction' or what here is called Money] is a broader and more complex category than 'currency'" (Dodd, 2005a, p. 393) is also coherent with the framing of this thesis. However, with assigning the term 'currency' to what is here called 'money' Dodd's concept falls short on two counts. For one, as we have seen above, the word currency in formal monetary economics is unambiguously defined as "notes and coins; or cash" (McLeay, Radia and Thomas, 2014b, p. 12). This can be seen as a form of the 'materialist fallacy' by which the physical manifestations of money are over emphasised and practically as well as conceptually misrepresented in regard to whole phenomena. Secondly, his terminology seems to run against the grain of common parlance. On the one hand, it would appear difficult to eliminate the word ‘money’ from layman and expert talk about the forms of ‘money’ we hold in our hands and bank accounts and refer to them only as ‘currency’. On the other hand, this would preclude complementary currency practitioners and advocates from referring to their units as ‘currency’ and require them to speak of ‘complementary monies’ instead, which he failed to stringently adhere to, even in his own publications (compare Dodd, 2014, p. 14).

At the time of writing of the thesis here presented, two contributions to the relationship between conventional money and complementary currencies were published that reflect the differentiation here proposed: Money – the concept - and currency – the instantiation thereof. In his recent book about monetary alternatives Jens Martingoni distinguished three layers similar to the ones of *Money, money* and *currency* here described: “1. the money system or money order as a general and abstract term, 2. Currencies as a specific money with its own ‘constitution’ and denomination and 3. money: actual concrete concept with a specific currency” (Martignoni, 2017, p. 38, my translation). The last of the three seems akin to what is here called ‘conventional money’ and Martignoni goes on to highlight the erroneous identification of the first and the third layer saying “Money system or monetary order are unfortunately very often abbreviated with ‘money’. The resulting equation between the abstract and the concrete terms of money causes a further part of the mentioned confusions in discussions of money, both in practice and in science.“ (Martignoni, 2017 p. 38) The second recent reference to the way the concept of Money becomes instantiated in various forms of what will here called ‘currency’ is the way in which Jérôme Blanc (2017) refers to Money as an abstract term on the one hand and concrete forms of money on the other. “Money is made concrete and usable in payments through specific forms that can vary greatly” and it would be erroneous to only appraise this diversity in its different material forms of circulating media instead of seeing forms of money as representing “social meaning” as systems of “values and norms” (Blanc, 2017, pp. 242-243).

Fig. 6: Diagram representing the relationship of the terms Money, money and currency according to the terminology here proposed



With the assignment of the term currency/currencies to all instantiations of the concept of Money the terminology here proposed and its graphical representation in figure 6 easily and coherently allow for terms like 'cryptocurrencies', 'community currencies', 'loyalty points' or 'time banks' to be described and depicted as subspaces of 'currencies', in parallel to 'money'. The much broader term 'complementary currencies' however would be less easy to depict distinctly, as it equates to all of the space of 'currencies' apart from the subspace of 'money'. Analogous to the differentiation between Money and money, the term Currency (with a capital C) can be added to this terminology to conceptualise non-monetary (non-transferable) unit systems, including but not limited to those elsewhere discussed under the term 'reputation currency' (see Bindewald 2018, pp. 68-70). Leaving those out of the scope and purpose of this paper, the individual definitions here proposed are:

- 'Money', 'currencies', and 'money' are transferable units that can facilitate transactional forms of collaboration. Ontologically all three are 'discursive institutions'.

- 'Money' is the purely conceptual space that contains the limitless number of conceivable ways in which such unit systems can be devised.

- 'currencies' are the actual implementations of the concept of 'Money' that are, or were, used to transact by specific groups of agents. These implementations are designed with a specific group and specific objectives in mind. This determines explicitly or implicitly, the forms of collaboration and corresponding transactions that a currency can facilitate. The way those transactions are executed - by the handing-over of physical representations of those units or by the reassignment of electromagnetic representations - does not constitute a categorical difference here, but comes down to practical design options in the initial and ongoing implementation process of a given currency.

- 'money' are the contemporary currencies that are devised or licensed by nation states and that most people currently use for most of their everyday transactions. To highlight the difference to Money, these are here sometimes paraphrased as 'conventional currencies'.

5.2 Implications for policy and theory

The complexity of proposing fundamental changes to financial policy also reflects in the multitude of existing organisations and agencies that are currently mandated with regulating and overseeing the financial system. Even to the 'watchdog' of the US Congress the situation in the US appears to be "complex and fragmented" and in need of streamlining (Government Accountability Office, 2016). As the data in this thesis covers various localities and constituencies, no attempt will be made to suggest amendments or refinements to any concrete policy or law text. But the findings from sections 2 and 3 suggest that a terminological distinction between Money, money and currency would be beneficial to adhere to in legal and expert discourses.

Admittedly, the introduction of the distinction between the concept of Money and 'conventional money' as its dominant instantiation, including all theoretical considerations that come with this, would be impractical to reflect in all legal texts that are currently concerned with 'money'. Consequently, one simple if radical way to do introduce clarity and coherence would be to eliminate all references to 'money' from law texts. Instead, the idea here is to clarify what sort of money/currency the law in a given case or constituency is concretely concerned with, and replace all mentions of the word 'money' with the name of that currency. In the UK that would mean that laws and regulations refer only to Pound Sterling, in the US to the US Dollar, in the Eurozone to the Euro. For complementary currencies this would have two direct effects. On the one hand, any currency system that has no direct interface with the national currency system, for example by being redeemable to it with the issuer, falls clearly outside the scope of the laws that are only concerned with Pound Sterling. It would thus not matter any more if the issuers, users or any observer regard, categorise, describe, or even advertise currencies like the Sardex, the WIR, timebanks or LETS as 'money' or something completely different. Consequently, the terminological and discursive ambiguity of that term would cease to be an impediment for the clarity of the law.

The second immediate benefit would be the elimination of the current legal contradictions, as revealed in the two previous chapters, in regard to the question of whether notes, coins and central bank reserves are equivalent as 'money' with electronic balances issued and held by commercial banks. That all of those practically count as 'money', for all discourses but the law, has been widely noted not only by economists but also by legal scholars (compare Hayek, 1990, p. 91; Proctor, 2012, p. 40; Huber, 2016, p. 22). If the law was to speak of Pound Sterling or Euro instead of 'money', all payment instruments, physical or electronic, would be included without doubt.

This would not necessarily imply that all other currencies and issuers thereof would be unregulated. A further proposal for "functional regulation" of all financial service providers, including conventional banks can be found in the chapter 8.2 of Bindewald 2018. And as unlikely the implementation of the here proposed legal and policy adjustments might seem, in one way or another it is time to heed the inadequacies of current definitions of money in order to avert what professor Huber recently warned against: "If legislators continue to slumber, it might very well happen, that [...] hardly revertible global facts are being created, which will finish off any financial sovereignty" (my translation, Huber, 2017). The recent announcement of a supranational currency issued by Facebook Inc. only lends further weight to these concerns and suggestions.

The discrepancies identified within and across the contemporary discourses of complementary currencies, financial regulators should also reinvigorate the academic efforts of finding more coherent theories which could help to understand current phenomena of conventional money and currency innovation and resolve terminological inconsistencies. In the review of current monetary theories (see Bindewald, 2018, chap. 2) no framework that can achieve such coherence could be identified, as two integration steps were required which discursive institutionalism appear to make possible. Firstly, monetary theory needs to take the contemporary division of influence between governmental agencies and commercial banks into account and cannot continue to adhere to chartalist ideas that restrict the term money to currencies issued by states. Secondly, novel and unconventional instantiations of the concept of Money need to be regarded as relevant on a theoretical level, even if they remain marginal in terms of the economic impact.

A precondition for the first integration step is to relinquish the appraisal of material forms of money as having primacy over non-material forms. The image of gold coins still seems to pervade the writings of even well established and otherwise critical scholars. In his presumed refutation of Ingham's proposition of money as a social relation, Costas Lapavitsas says: "Much of the mystery and complexity of money arises because it is simultaneously a social relation [...] and a thing" (Lapavitsas, 2005, p. 401). However, even if the immediate history of the conventional money in use today includes certain material underpinnings to paper notes that sets them apart from money on account, the way that these material phenomena are treated in contemporary research really only add that to monetary theory: mystery. The break from the global gold standard in the 1970s and the ensuing spread of information technologies that led to today's dominance of money that is electronically created and transacted by private banks means that monetary theory still needs to include material forms of money but they do not contradict a purely social constructivist position.

Proctor summarised both points, saying that “it can no longer be accepted that money can exist only in a physical form or that the State has the monopoly over its creation. [...] The dominance of scriptural money and the role of private institutions in the creation of money is now so great that the original theory [of metalism and chartalism] has an air of unreality about it.” (Proctor, 2012, p. 40) Yet the account of money and currency even in the texts of both central banks and the law was here found to still reference these obsolete ideas and to fail in providing a consistent terminology.

Authors such as Dodd, Zelizer, Lietaer, Gomez and Blanc, have called for and worked towards such an extension of monetary theory and discourse to include the phenomena of complementary currencies. Describing money and currencies, including conventional money, as discursive institutions provides a consistent theoretical framework and a rich transdisciplinary methodological tool-kit to bridge the divide between all sectors of the practice of complementary currencies and ‘money as we know it’. Notably, with this presented terminology, profit orientated currency systems like the Sardex and the growing field of blockchain based currencies like Bitcoin can be described within the practice of complementary currencies alongside models like timebanks, local currencies and LETS that have broader recognition in the complementary currency literature.

Finally, the way in which money and currencies are talked about needs to be seen as more than semantics employed for educational or promotional purposes. Language and discourse is how Money, money and currencies are imbued with reality and social relevance. Money is what it is said to be and how it is instantiated and used as currencies; and stories about money coalesce across discourses into ‘the story that is money’. This demands a heightened sense of awareness and coherence particularely from scholars, advocates and practitioners concerned with reforming our financial systems towards sustainability, equity and democracy.

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