



Article

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Should Bitcoin Be Classified as Money?

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Abstract: The advent of virtual currencies such as bitcoin raises a pressing question for lawmakers, regulators, and judges: should bitcoin and other virtual currencies be classified as money or currency for legal and regulatory purposes? I examine two different approaches to answering this question—a descriptive approach and a normative approach. The descriptive approach says that bitcoin and other virtual currencies should be classified as money or currency just in case they really are money or currency, whereas the normative approach says that this question of classification should be answered on the basis of substantive normative considerations. I argue against the descriptive approach and in favor of the normative approach.

Keywords: money, bitcoin, virtual currency, law, finance, social ontology

1 The Question

The launch of bitcoin in 2009 ushered in a new age of ‘virtual currencies’. Today, there are thousands of such currencies in existence.¹ These virtual currencies share some features in common with standard currencies such as the US dollar, the euro, and the yen. Most notably, many of them are used as a method of payment in some environments. But virtual currencies also differ from standard currencies in certain salient respects. As their name suggests, they are entirely virtual or digital. This distinguishes them from standard currencies, which usually come in both physical

¹ According to data from CoinMarketCap, there are more than 8000 cryptocurrencies in existence as of February 2021. See <https://coinmarketcap.com/all/views/all>. Cryptocurrencies are digital currencies that use cryptography to secure transactions and control the creation of new currency units. Cryptocurrencies are sometimes taken to include digital bank currencies (e.g., Global China Cash), which are not virtual currencies in the sense characterized below because they are issued by central banks.

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and electronic form—for instance, US dollars come in the form of physical banknotes, as well as in electronic form. More importantly, virtual currencies are not issued or controlled by a central bank or other public authority, unlike standard currencies. Rather, they are typically issued and controlled by private individuals or organizations. Furthermore, virtual currencies do not have the status of legal tender in any jurisdiction.² That is, there is no state or other territory in which these currencies are “recognized by law as a means to settle a public or private debt or meet a financial obligation, including tax payments, contracts, and legal fines or damages” (Investopedia 2021, par. 1).

The advent of virtual currencies raises a pressing question for lawmakers, regulators, and judges: should bitcoin and other virtual currencies be classified as money or currency for legal and regulatory purposes? As Anita Ramasastry (2014) notes, the answer to this question has significant practical implications. For there are many existing laws and regulations concerning money or currency, such as money laundering laws, banking laws, and tax regulations. If bitcoin and other virtual currencies are classified as money or currency, then these existing laws and regulations would apply to the users of these virtual currencies.

The answer to this question, though, is far from clear. As we noted, bitcoin and other virtual currencies are not legal tender in any jurisdiction. But it is an open question whether the notion of money or currency should be equated with the notion of legal tender, for the purposes of law and regulation. Seeing as bitcoin and other virtual currencies resemble standard currencies and forms of money in certain central respects, it may be thought that they should be classified as money or currency despite their not being legal tender. This, indeed, is the stance that several judges have taken in recent court cases involving bitcoin.³

One case concerned Trendon Shavers, who was the founder and operator of Bitcoin Savings and Trust (BTCST), an online investment scheme that solicited investments and paid returns in bitcoin. In 2013, the United States Securities and Exchange Commission accused Shavers of defrauding investors out of more than 4.5 million dollars worth of bitcoins. In response, Shavers argued that bitcoin is not money and so the BTCST investments do not count as investments of money. Since they are not investments of money, he argued, they are not ‘securities’ as defined by Federal Securities Law, and so they are not regulated by this body of law. Judge Amos L. Mazzant disagreed, ruling as follows:

² The SOV, which is a digital decentralized currency based on blockchain technology, is legal tender in the Republic of the Marshall Islands. However, the SOV is not a virtual currency in the relevant sense because it is issued by the Ministry of Finance of the Republic of the Marshall Islands. See <https://sov.foundation>.

³ The cases discussed below are from Ramasastry (2014).

It is clear that Bitcoin can be used as money. It can be used to purchase goods or services, and as Shavers stated, used to pay for individual living expenses. The only limitation of Bitcoin is that it is limited to those places that accept it as currency. However, it can also be exchanged for conventional currencies, such as the U.S. dollar, Euro, Yen, and Yuan. Therefore, Bitcoin is a currency or form of money, and investors wishing to invest in BTCST provided an investment of money (*SEC v. Shavers* 2013, p. 3).

Judge Katherine B. Forrest reached a similar verdict in another case, which involved Ross William Ulbricht. Ulbricht created, owned, and operated the website Silk Road, which facilitated the anonymous buying and selling of narcotics using a bitcoin-based payment system. In response to a charge of money laundering, Ulbricht argued that the transactions he engaged in were not ‘financial transactions’ because they were conducted using bitcoin, and bitcoin is not money. Judge Forrest disagreed, opining as follows: “Bitcoins carry value—that is their purpose and function—and act as a medium of exchange. Bitcoins may be exchanged for legal tender, be it U.S. dollars, Euros, or some other currency. Accordingly, this argument fails” (*United States v. Ulbricht* 2014, p. 548).

On the other hand, the United States Internal Revenue Service announced in 2014 that it would treat virtual currencies as property rather than currency for federal tax purposes, citing the fact that virtual currencies are not legal tender:

The Internal Revenue Service (IRS) is aware that ‘virtual currency’ may be used to pay for goods or services, or held for investment. Virtual currency is a digital representation of value that functions as a medium of exchange, a unit of account, and/or a store of value. In some environments, it operates like ‘real’ currency—i.e., the coin and paper money of the United States or of any other country that is designated as legal tender, circulates, and is customarily used and accepted as a medium of exchange in the country of issuance—but it does not have legal tender status in any jurisdiction (Internal Revenue Service 2014, sec. 2).

In a similar vein, a court in the Netherlands ruled in 2014 that bitcoin does not meet the definition of ‘legal tender’, ‘common money’, or ‘electronic money’, although it is a medium of exchange (Rizzo 2014; Zeldin 2014). The civil case concerned an uncompleted bitcoin transaction in which the buyer paid for 2750 bitcoins but only received 990 bitcoins from the seller. The buyer sued the seller for the remaining bitcoins, plus the lost profits he would have made during bitcoin’s subsequent price surge. The court ruled that the seller must pay back the buyer the original value of the 1760 bitcoins that were not delivered, plus interest and legal costs. However, the court did not grant the buyer the 130,000 euros worth of damages that he sought for lost profits. Had bitcoin been judged to be money, he may have been entitled to these damages.

We see, then, that there are diverging opinions on the issue of how bitcoin and other virtual currencies should be classified in the context of law and regulation.

How might this matter be adjudicated? It may be thought that for judges, this is a question of legal interpretation. And it is commonly supposed that legal interpretation is a matter of discovering what the authors of a given statute meant to say with their words.⁴ Yet most of our banking laws, money laundering laws, and other laws pertaining to money or currency were written prior to the advent of bitcoin and other virtual currencies. So the authors of the relevant statutes likely had no intention of either including virtual currencies in the purview of these laws, or of excluding them. Authorial intent is therefore unlikely to settle the matter. In any case, when it comes to lawmakers and regulators, past intentions will be of little help in resolving the issue of how to classify bitcoin and other virtual currencies—for lawmakers and regulators are not in the business of interpreting existing laws and regulations, but of devising new laws and regulations. So the question for them is: should bitcoin and other virtual currencies be classified as money or currency for this or that purpose, going forward? Let us now examine two different approaches to this vexing question.

2 The Descriptive Approach

The first approach says that bitcoin and other virtual currencies should be classified as money or currency for legal and regulatory purposes just in case they *really are* money or currency. Recent writings by some economists suggest such a ‘descriptive approach’. For instance, David Yermack observes that the issue of whether bitcoin should be considered a currency has “drawn increasing attention from market regulators concerned about the tax, insurance, and other consequences of how bitcoin is treated legally” (2015, p. 32). He then proceeds to examine whether bitcoin is a ‘real’ currency. Similarly, Peter Hazlett and William Luther note that the question of whether bitcoin is money is “not purely academic”, as government agencies have grappled with this question and reached conflicting conclusions (2020, p. 144). The implication is that their theoretical analysis of bitcoin might help such government agencies to resolve this issue.

To illustrate the descriptive approach, let us consider in some detail the analyses proposed by these respective authors. Both Yermack and Hazlett and Luther subscribe to a functionalist conception of money.⁵ According to this conception, something is money if and only if it fulfills certain functions which are

⁴ Cf. Dworkin (1982, p. 181). Dworkin himself argues that legal interpretation involves substantive political theory.

⁵ This is the standard conception of money in economics. Some philosophers also endorse this conception. See, e.g., Guala (2016, p. 175).

characteristic of money. While these authors agree on this functionalist conception, they disagree over the details. Specifically, they disagree over which functions are definitive of money. Hazlett and Luther privilege the function of being a medium of exchange (2020, p. 145), whereas Yermack takes three functions to be definitive of money, viz. being a medium of exchange, a unit of account, and a store of value (2015, p. 32).

These authors go on to assess whether bitcoin is money given their respective definitions of money—and they reach opposing conclusions.⁶ Yermack contends that bitcoin functions only somewhat as a medium of exchange, since relatively few merchants accept bitcoin and even these merchants engage in a small number of bitcoin transactions (2015, p. 37). Furthermore, he argues, bitcoin functions poorly as a unit of account because merchants oftentimes have to quote bitcoin prices in four or more decimal places, which is hard for consumers to keep track of (2015, pp. 38–39); and it functions poorly as a store of value due to its high volatility (2015, pp. 40–41). Bitcoin is therefore not a bona fide currency, he concludes. Hazlett and Luther, on the other hand, argue that bitcoin's routine use as a medium of exchange in a small corner of the Internet suffices for it to be money over this domain (2020, p. 148).

Thus, these authors reach opposing conclusions regarding the monetary status of bitcoin because they disagree over whether the function of being a medium of exchange is the only definitive function of money and, moreover, they disagree over whether bitcoin fulfills this function to a sufficiently high degree. It is by adjudicating such theoretical questions that we can adjudicate the practical question of whether bitcoin should be considered money or currency for legal and regulatory purposes, according to the descriptive approach.

The main problem with this approach is that it elides a fundamental difference between practical domains such as law and regulation, and theoretical domains such as science. The aim of theoretical domains such as science is to advance our knowledge and understanding of the world, and this aim guides definition and classification in science. It thus makes sense for social scientists to try to define money or currency in a way that reflects the true nature of money or currency. And it makes sense for them to classify bitcoin as money or currency just in case it *really* is money or currency so defined. In contrast, the aim of practical domains such as law and regulation is to regulate and coordinate our social interactions, and it is this aim that should guide definition and classification in law and regulation. Sometimes, though, this aim may be promoted by adopting definitions or

⁶ More precisely, Yermack assesses whether bitcoin is a currency. However, his assessment is based on a definition of money rather than currency, and so his conclusion may be construed as concerning the monetary status of bitcoin.

classifications that diverge from what we take to be the correct definitions or classifications. Thus, for example, the European Union classifies carrots as fruit in the context of laws pertaining to fruit jams, jellies, and marmalades and chestnut purée (Council of the European Union 2002, annex 3 a.1). Scientifically speaking, of course, carrots are not fruit.⁷ But since the Portuguese make carrot marmalade, it made sense for the European Union to classify carrots as fruit in this particular regulatory context.⁸ Likewise, it might make sense for lawmakers and regulators to classify bitcoin and other virtual currencies as money or currency even if they are not really money or currency.

A further problem with the descriptive approach is that it presumes that there is one correct account of what money or currency really is. This presumption, however, may be challenged. We already saw that some economists take money to be a commonly accepted medium of exchange, whereas others take it to be a medium of exchange, unit of account, and store of value. But many theorists of the social world do not subscribe to any version of the functionalist conception of money. One of the most influential alternatives—at least among philosophers—is the recognitional conception. According to this conception, something is money if and only if it is recognized, accepted, or declared to be money (where ‘acceptance’ refers to a certain mental state as opposed to an act of accepting something as payment).⁹

Proponents of the recognitional conception diverge on the details. One important issue concerns the subjects of the relevant attitudes or speech acts. Some hold that the subjects are the members of the relevant population (see, e.g., Thomasson 2003a); others hold that they are either practical authorities or individuals or entities with social standing (see Passinsky 2020); still others hold an ecumenical view that allows for different sorts of cases (see Hindriks 2006). Another issue concerns the precise content of the relevant attitudes or speech acts—viz., what exactly are you recognizing when you recognize that something is *money*? One view is that you are

⁷ According to botanists, a fruit is a mature ovary of a plant. Since a carrot is not a mature ovary of a plant, it is not a fruit.

⁸ A related example, which is discussed by Mercier (2007, p. 177 n. 8) and Guala (2016, p. 205), is the classification of tomatoes as vegetables for trade purposes in the United States. In 1893, the United States Supreme Court ruled that tomatoes are vegetables for the purposes of the Tariff Act of 1883, even though botanically speaking tomatoes are fruit. The opinion of the Court cited the fact that in ordinary parlance, tomatoes are taken to be vegetables (*Nix v. Hedden* 1893, p. 307). Adhering to ordinary parlance in this context arguably promotes social coordination, and the Court’s decision may have been guided (at least implicitly) by this aim.

⁹ Thomasson (2003a, 2003b), Hindriks (2006), and Passinsky (2020) subscribe to a conception along these lines. Searle (1995, 2010) may also be construed as a proponent of this conception, though some of his remarks point in a different direction (cf. Guala 2016, pp. 165–67).

recognizing that the function of the thing is to be a medium of exchange (whether or not it fulfills this function).¹⁰ Another view is that you are recognizing that the holder of the thing has certain rights, for instance, the right to repay public or private debts with it.¹¹ These differences notwithstanding, proponents of the recognitional conception are united in the belief that something's being money is not so much a matter of what we *do* with it—as the functionalist conception would have it—but rather a matter of how we *think* or *talk* about it.

Neither conception is entirely adequate on its own. Consider banknotes in Germany during the period of hyperinflation following the First World War. These banknotes were eventually so devalued that people used them as wallpaper. At that point, the banknotes no longer fulfilled the characteristic functions of money, but they were still recognized as money by the German government.¹² There is *some* clear sense in which these banknotes were still money—or so it seems to me. The functionalist conception, though, cannot account for this. Since the devalued banknotes no longer fulfilled the characteristic functions of money, they were no longer money according to this conception. Imagine now a society in which people regularly accept seashells in exchange for other goods. These people use seashells in the way that we use dollar bills. But suppose that unlike us, they do not have a concept of money—so they do not conceive of the seashells *as* money. Again, it seems to me that there is *some* clear sense in which these seashells are money in this society. The recognitional conception, though, cannot account for this. Since the seashells are not represented as money, they are not money according to this conception.

This points to the possibility that 'money' is an ambiguous term. Perhaps to be money in one sense is to be money according to the functionalist conception, and to be money in another sense is to be money according to the recognitional conception. Both conceptions would then be correct, albeit incomplete. Given this ambiguity, we can easily account for both of our intuitive judgments—the devalued German banknotes are money in the recognitional sense, whereas the seashells in the imaginary society are money in the functionalist sense.

But if the term 'money' is ambiguous, then the descriptive approach may not be able to satisfactorily answer the practical question of interest to us. For it may turn out that bitcoin and other virtual currencies are money in one sense,

10 This view relies upon a distinction between the function(s) a thing *has* (its 'intended function' or 'proper function'), and the function(s) it fulfills or performs. This is a familiar distinction in the literature on artifacts. See, e.g., Hilpinen (1993, p. 161) and Thomasson (2009, sec. 4).

11 When combined with the view that the relevant subject is the law or the legal system, this view yields a version of the recognitional conception which equates money with legal tender.

12 Cf. Almäng (2016, sec. 3) on the separation of 'institutional statuses' from 'institutional functions'. Cf. also Hindriks (2020, sec. 2) on the mismatch problem.

but are not money in another sense. For instance, if Hazlett and Luther are right, then bitcoin is money in the functionalist sense. However, since government agencies such as the IRS do not recognize bitcoin as currency, it may be argued that bitcoin is not money in the recognitional sense. But then the question would still remain: which is the pertinent sense for various legal and regulatory purposes?

Supposing that the recognitional sense is pertinent for at least some legal and regulatory purposes, the descriptive approach faces a further problem. According to the recognitional conception, the attitudes or say-so of certain subjects *makes it so*. And however we construe the relevant subjects, they will presumably include at least some lawmakers, regulators, or judges. But then it does not make sense for these lawmakers, regulators, or judges to decide whether to classify bitcoin as money or currency solely on the basis of whether bitcoin is money according to the recognitional conception. For their very decision partly *determines* whether bitcoin is money according to this conception. It seems, then, that their decision must be based at least in part on other considerations—especially if their say-so plays an outsize role in making it so.¹³

3 The Normative Approach

This brings us to what I will call the ‘normative approach’. This approach starts from a simple and plausible idea: social institutions have a point or purpose to them, and this point or purpose is to secure or promote values (Hindriks and Guala Forthcoming, sec. 4). Since the law is a social institution, it too has a purpose and this purpose is to promote certain values. It is a matter of debate what these values are. But they plausibly include values such as social coordination, dispute resolution, justice, and fairness (cf. Dworkin 1982, p. 194). The normative approach, then, says that bitcoin and other virtual currencies should be classified as money or currency for various legal and regulatory purposes just in case doing so would secure or promote values such as social coordination, dispute resolution, justice, and fairness.¹⁴ This approach is normative insofar as it says that lawmakers,

¹³ Thanks to Dan López de Sa for helpful discussion of the ideas in this paragraph.

¹⁴ This normative approach is in the spirit of Haslanger’s (2000) ameliorative approach to gender and race. According to Haslanger, our definitions of gender and race should be guided by normative considerations. However, Haslanger is not explicitly concerned with how gender and race should be defined in law, but rather with how they should be defined in social theory. My normative approach is also in line with Guala’s suggestion that the codification of marriage in law is a “normative juridical matter” (2016, p. 200).

regulators, and perhaps even judges should make their classificatory decisions on the basis of substantive normative considerations, rather than on the basis of purely descriptive considerations.¹⁵

On this normative approach, there may be no uniform answer to the question of how bitcoin and other virtual currencies should be classified for legal and regulatory purposes. For it may very well turn out that the relevant values are best promoted by classifying bitcoin and other virtual currencies as money or currency in some contexts, but as something other than money or currency in other contexts. For example, it may turn out that these values are best promoted by classifying bitcoin as money in the context of money laundering statutes, but as property in the context of tax regulation. Thus, the normative approach requires us to examine particular bodies of statutes and regulations. In each case, we must determine which classification best promotes the relevant values.

Implementing the normative approach is thus no easy task, and it is not something that I shall attempt to do here. That being said, let me illustrate the approach with two examples. The first concerns money laundering statutes. Should bitcoin be classified as money in the context of these statutes? If bitcoin is so classified, then existing money laundering statutes would apply to transactions involving bitcoin. This would make it easier to prosecute bitcoin users such as Ross Ulbricht, who (you may recall) owned and operated a website which facilitated the buying and selling of narcotics using a bitcoin-based payment system. This, in turn, would arguably promote justice and fairness. For there appears to be no morally relevant difference between Ulbricht's actions and the actions of someone who, say, owned and operated a website facilitating the buying and selling of narcotics using a US dollar-based payment system. Given that this latter person could be prosecuted under existing money laundering statutes, it would be unjust and unfair if Ulbricht could not likewise be prosecuted. This favors classifying bitcoin as money in the context of money laundering statutes.

My second example concerns tax regulations. Should bitcoin be classified as money or currency in the context of these regulations? As we noted earlier, the IRS currently treats bitcoin and other virtual currencies as property rather than currency for tax purposes. Some have complained that this makes tax compliance much more difficult (see, e.g., Marotta 2018). If classifying bitcoin as currency for tax purposes would make tax compliance easier, then doing so might better coordinate the actions of taxpayers and the government, which would in turn promote the value of social coordination. This would be an argument in favor of

¹⁵ On certain views of legal interpretation, the normative approach may be applicable to judges. For instance, it may be applicable to judges on Dworkin's (1982) theory.

classifying bitcoin as currency for tax purposes. On the other hand, if tax compliance becomes much easier than it is now, more businesses and consumers may start using bitcoin. And the widespread use of bitcoin might ultimately undermine the ability of central banks to achieve important economic goals, such as a low unemployment rate, through regulation of the money supply. This, in turn, might thwart the promotion of values such as economic efficiency and social coordination. That would then be an argument in favor of continuing to classify bitcoin and other virtual currencies as property rather than currency for tax purposes.

As evidenced by this second example, the normative approach may not always yield a decisive answer. In such cases, we will need to carefully weigh the considerations for and against classifying bitcoin and other virtual currencies as money or currency for this or that purpose, in light of the values our law is meant to promote. While I cannot hope to resolve such complex cases here, I do hope to have articulated and illustrated a promising approach to resolving them.

4 Conclusion

In this paper I have focused on the question of whether bitcoin and other virtual currencies should be classified as money or currency for legal and regulatory purposes. And I have argued that this question should be answered by means of a normative approach as opposed to a descriptive approach. The broader upshot of my discussion is that when it comes to questions of definition and classification in law and regulation—for instance, how to define sex or gender for various purposes, how to construe marriage, who to count as a person, and so on—the answers are not to be found by simply uncovering the true nature of the relevant social phenomenon. Rather, the answers are to be found by engaging in substantive normative theorizing.

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References

- Almäng, J. 2016. “Legal Facts and Dependence on Representations.” *Journal of Social Ontology* 2: 1–15.
- Council of the European Union. 2002. “Council Directive 2001/113/EC of 20 December 2001 Relating to Fruit Jams, Jellies and Marmalades and Sweetened Chestnut Purée Intended for Human Consumption.” *Official Journal of the European Communities* L10, 12.1.2002: 67–72. Available at: <https://data.europa.eu/eli/dir/2001/113/oj>.
- Dworkin, R. 1982. “Law as Interpretation.” *Critical Inquiry* 9: 179–200.
- Guala, F. 2016. *Understanding Institutions: The Science and Philosophy of Living Together*. Princeton: Princeton University Press.
- Haslanger, S. 2000. “Gender and Race: (What) Are They? (What) Do We Want Them To Be?” *Noûs* 34: 31–55.
- Hazlett, P., and W. Luther. 2020. “Is Bitcoin Money? And What That Means.” *The Quarterly Review of Economics and Finance* 77: 144–9.
- Hilpinen, R. 1993. “Authors and Artifacts.” *Proceedings of the Aristotelian Society* 93: 155–78.
- Hindriks, F. 2006. “Acceptance-Dependence: A Social Kind of Response-Dependence.” *Pacific Philosophical Quarterly* 87: 481–98.
- Hindriks, F. 2020. “How Social Objects (Fail to) Function.” *Journal of Social Philosophy* 51: 483–99.
- Hindriks, F., and F. Guala. Forthcoming. “The Functions of Institutions: Etiology and Teleology.” *Synthese*, <https://doi.org/10.1007/s11229-019-02188-8>.
- Internal Revenue Service. 2014. *IRS Virtual Currency Guidance (Notice 2014–21)*. Also available at https://www.irs.gov/irb/2014-16_IRB#NOT-2014-21.
- Investopedia. 2021. “Legal Tender.” <https://www.investopedia.com/terms/l/legal-tender.asp>.
- Marotta, D. J. 2018. “The Tax Treatment of Bitcoin and Other Cryptocurrencies.” *Forbes*. <https://www.forbes.com/sites/davidmarotta/2018/09/27/the-tax-treatment-of-bitcoin-and-other-cryptocurrencies>.
- Mercier, A. 2007. “Meaning and Necessity: Can Semantics Stop Same-Sex Marriage?” *Essays in Philosophy* 8: 142–81.
- Nix v. Hedden. 1893. 149 U.S. 304 (1893). Available at: <https://casetext.com/case/nix-v-hedden>.
- Passinsky, A. 2020. “Social Objects, Response-Dependence, and Realism.” *Journal of the American Philosophical Association* 6: 431–43.
- Ramasastri, A. 2014. “Is Bitcoin Money? Lawmakers, Regulators and Judges Don’t Agree.” *Verdict*. <https://verdict.justia.com/2014/09/09/bitcoin-money>.
- Rizzo, P. 2014. “Dutch Court Declares Bitcoin Isn’t Money in Civil Trial.” *CoinDesk*. <https://www.coindesk.com/dutch-court-declares-bitcoin-isnt-money-in-civil-trial>.
- Searle, J. R. 1995. *The Construction of Social Reality*. New York: The Free Press.
- Searle, J. R. 2010. *Making the Social World: The Structure of Human Civilization*. New York: Oxford University Press.
- SEC v. Shavers. 2013. No. 4:13-cv-416 (E.D. Tex. Aug. 6, 2013). Available at: <https://casetext.com/case/sec-exch-commn-v-shavers-1>.
- Thomasson, A. L. 2003a. “Foundations for a Social Ontology.” *ProtoSociology* 18–19: 269–90.
- Thomasson, A. L. 2003b. “Realism and Human Kinds.” *Philosophy and Phenomenological Research* 67: 580–609.
- Thomasson, A. L. 2009. “Artifacts in Metaphysics.” In *Philosophy of Technology and Engineering Sciences*, edited by A. Meijers, 191–212. Amsterdam: Elsevier.

- United States v. Ulbricht. 2014. 31 F. Supp. 3d 540 (S.D.N.Y. 2014). Available at: <https://casetext.com/case/united-states-v-ulbricht-11>.
- Yermack, D. 2015. "Is Bitcoin a Real Currency? An Economic Appraisal." In *Handbook of Digital Currency: Bitcoin, Innovation, Financial Instruments, and Big Data*, edited by D.L.K. Chuen, 31–43. Boston: Elsevier.
- Zeldin, W. 2014. "Netherlands: Local Court Ruling on Bitcoin Transaction." *Global Legal Monitor*. <https://www.loc.gov/law/foreign-news/article/netherlands-local-court-ruling-on-bitcoin-transaction>.