



Locke's species: Money and philosophy in the 1690s

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Summary

John Locke intervened in two major debates in which the issue of species featured: (1) the question of whether species designations are based on real essences or only nominal essences (discussed in the *Essay*), and (2) the debate over the recoinage of English currency in the 1690s, in which Locke argued for a restoration of silver depleted by widescale clipping (discussed in his economic writings published between 1692-95). This article investigates Locke's position on the recoinage and considers alternative proposals in the period, including those which advocated the introduction of a 'new species' of money in the form of credit, based on land. Locke opened the space, philosophically, for innovations in defining money, but endorsed a narrower conception of money as silver by weight alone (not by its stamp or denomination). His rationale for doing so exposes his attachment to shared systems of measurement, intersubjective agreement, and ways of stabilizing meaning by reference to external criteria (in this case, the weight of silver, a measure that functioned internationally). This suggests a pattern of attempting to constrain the nominalism that his system otherwise foregrounded.

Keywords: John Locke, money, species, recoinage, credit, land banks, philosophy of language

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1. Introduction

The early modern debate over species – whether they exist in nature or merely represent a contrivance imposed on nature by language use for convenience – featured an important intervention by John Locke in *An Essay concerning Human Understanding* (1690). Locke famously argued that the designation of species comes

about not by accessing their ‘real’ essences, but by devising ‘nominal’ essences corresponding to abstract ideas, not things in themselves. Thus, for Locke, ‘*Species of Things, are nothing else but these abstract Ideas.*’¹ Natural philosophy was tasked with enhancing observation and thereby creating a better match between ideas and the words applied to them, but our knowledge did not penetrate to the real essences of things themselves. Recent criticism has been divided in its interpretation of Locke on a further, related question: is it true that Locke not only denied that we have access to real essences but that he also held that nature itself is not organised in this way? As one critic has succinctly described this position, ‘No minds, no species’.² Or is the alternative view correct, namely that Locke *did* believe in the real existence of species in nature despite his conventionalism about classifying them. On this account, the central issue remains the extent to which real essences serve to constrain our nominal essences and whether our definitions of the latter may be said to converge, progressively, with the former.³

During this period, the widespread use of the word ‘species’ appeared in a range of contexts. Among them, the term occurred with a variety of meanings in discussions over the monetary crisis in the 1690s in England. The clipping of silver from coin in circulation accelerated rapidly in 1695, leaving the currency, on average, at half its official weight. Finding a remedy for the predicament became critical during the ongoing war with France (the Nine Years’ War, 1688–97). Authorities disputed a number of alternatives, which included ‘raising’ the value of the ‘species’

¹ John Locke, *An Essay concerning Human Understanding*, edited by P.H. Nidditch (Oxford: Clarendon Press, 1975), III.iii.12. On nominal essences see III.iii.15-16; III.vi.2. Further references to the *Essay* are provided in the text, with book, chapter, and section number.

² David N. Stamos, *The Species Problem: Biological Species, Ontology, and the Metaphysics of Biology* (Lanham, MD: Lexington Books, 2003), 41.

³ See Peter R. Anstey, *John Locke and Natural Philosophy* (Oxford: Oxford University Press, 2011), ch. 11. For Anstey’s response to Stamos, see 204-5.

(that is, by devaluing it), restoring the missing silver by recalling coin in circulation and reminting it, or taking various temporary measures, as one participant put it, ‘till the true Species of money’ could be restored.⁴ Locke also joined in the debate to advocate maintaining the existing monetary standard and bring it back to its legal weight. A plan largely in line with his principles prevailed in Parliament and the Recoinage began in 1696. In the midst of these discussions for remedying the precarious position of the English economy, a suggestion was made of creating what some participants explicitly called a new ‘species’ of money in the form of credit, backed by security in land.⁵ Locke’s views on this particular strategy remain unknown, but the issues at stake invite us to reinvestigate his approach to the problem of money and what we might learn from it about his understanding of species.

Money, according to Locke’s philosophical system, represented an instance of a ‘mixed mode’. Mixed modes constitute what he termed ‘voluntary Combinations’ of ideas; they had the distinctive feature that, as Locke commented, ‘the Essence of each Species’ is made ‘by Men alone’ (II.xxxii.12), and therefore no distinction exists between their real and nominal essences. As we follow the line of Locke’s argument during the recoinage crisis, however, it becomes clear that the creative potential afforded by money as a mixed mode was far from attractive to him. On the contrary, he sought ways of limiting the introduction of new and unwarranted definitions, and, by extension, prospectively new species of money. Instead, he anchored the meaning of money in silver’s quantity by weight. The paradox is that Locke had conceptual resources for taking a very different position. Money as a mixed mode afforded a kind

⁴ Charles Davenant, ‘A Memorial Concerning the Coyn of England’ [1695], in *Two Manuscripts by Charles Davenant*, edited by Abbott Payson Usher (Baltimore: Johns Hopkins Press, 1942), 48.

⁵ E.g., John Briscoe, an exponent of a land bank, described the bills of credit created by his scheme as ‘being a new Species of Money’. *A Discourse on the Late Funds of the Million-Act, Lottery-Act, and Bank of England* (London, 1694), 30.

of flexibility for changing its definition that he might have allowed, just as the emphasis he placed on consent might have opened the door to legitimate innovations by agreement that would have allowed a greater role for credit. The rationale for adopting the position he took and the implications of his argument deserve attention in themselves. At the same time, this investigation gives us an insight into Locke's decided preference for shared systems of measurement, intersubjective agreement, and ways of giving stability to meaning by reference to 'external' criteria, which in this instance led him to emphasise the necessity of valuing silver according to its weight (a measure that functioned internationally). While these concerns remain distinct from the issue of Locke's attitude to the existence of real essences in nature, they nonetheless suggest that unconstrained nominalism held limited appeal for him. To explore these issues we need to engage especially with Locke's philosophy of language, in which monetary metaphors abound, as well as his political perspective on contracts, property and consent.

2. Locke and the problem of species

The leading accounts of Locke's complex position on species have arrived at very different conclusions. Given that, for Locke, abstract ideas mark out species, it remains in question if he maintained the stronger view that natural boundaries do not exist in nature and that real essences fail to determine species because they are relative only to nominal essences (made by human beings). Michael Ayers has developed the latter interpretation, describing Locke as offering an anti-Aristotelian and anti-Scholastic critique of substantial forms, in which he insisted on the

impossibility of determining the boundary between properties and accidents.⁶ The separation between classes is determined exclusively by nominal essences, that is, by names rather than real divisions in nature. The convenience of having such names is never in doubt, but a grave error would be made in supposing that such nominal essences are the same as the real essences of things in themselves. Locke acknowledges that nature makes certain things alike, yet we should not confuse what this means. As Locke comments,

I do not deny, but Nature, in the constant production of particular Beings, makes them not always new and various, but very much alike and of kin one to another: But I think it is nevertheless true, that *the boundaries of the Species, whereby Men sort them, are made by Men.* (III.vi.37)

To confirm the point, he notes the inadequacy of our attempts at classification which appear in anomalous cases that do not conform but rather cut across such classes. Furthermore, another ‘anarchy’ exists, as nature transforms itself over time, an important feature of the corpuscular world adhered to by Locke.⁷

An alternative reading of Locke’s position has recently been put forward by Peter Anstey based on a range of sources.⁸ In Locke’s correspondence with William Molyneux following the publication of the *Essay*, for example, Locke clarified that he believed ‘that there are real constitutions in things from whence...simple ideas flow’, adding: ‘And this I farther say, that there are real distinctions and differences in those real constitutions one from another; whereby they are distinguished one from another,

⁶ Michael Ayers, *Locke: Epistemology and Ontology*, 2 vols (London: Routledge, 1991), II, 70, 72, 74 (and more generally II, 65-77).

⁷ Ayers (note 6), II, 68-9.

⁸ Anstey (note 3); see also Peter R. Anstey and Stephen A. Harris, ‘Locke and Botany’, *Studies in History and Philosophy of Biological and Biomedical Sciences*, 37 (2006), 151-71. Anstey concurs with the reading of Matthew Stuart, ‘Locke on Natural Kinds’, *History of Philosophy Quarterly*, 16:3 (1999), 277-96.

whether we think of them or name them or no.’⁹ For Anstey, Locke committed himself to the objective existence of species in nature (based on their corpuscular structure), although he remained a conventionalist on the question of how we classify these species. In other words, human understanding does the work of sorting things, as Locke puts it,¹⁰ but this is not the same as holding that the mind, in Anstey’s words, ‘constructs or determines which classes there are in nature’.¹¹ Our remoteness from real essences means that we still make our own species designations, necessarily, on the basis of nominal rather than real essences. Nonetheless Locke maintains that the simple ideas we have of things are caused by properties that result from their real essences. There are constraints on the range of properties and thus on how we form nominal essences based on them. We do not (or certainly should not) devise nominal essences by bundling properties together in a haphazard fashion and putting a label on them. The supposition is that nature remains unified and repeats itself, rather than being erratic; a stable ontological ground exists for what we observe, and the aspiration to produce more adequate or at least improved nominal essences is not unreasonable.

The good news for natural history, on both readings of Locke, is that we ought to proceed with our inquiries undeterred, despite the epistemic limits on accessing real essences.¹² It is imperative to continue the work of experiment and observation, according to Locke, to ‘rectify and settle our complex *Idea*, belonging to each specifick Name’, and thereby, with substances, to ‘perfect, as much as we can, our *Ideas* of their distinct Species’ (III.xi.24). When Locke makes the point about the

⁹ Locke to William Molyneux, 20 January 1693. *The Correspondence of John Locke*, 8 vols, edited by E.S. de Beer (Oxford: Clarendon Press, 1976-89), IV, 626; quoted in Anstey (note 3), 205.

¹⁰ Locke (note 1), III.iii.12.

¹¹ Anstey (note 3), 207.

¹² Ayers (note 6), II, 75; Anstey (note 3), 213.

distinction between real and nominal essences, his favourite example is gold. Its nominal essence is our complex idea formed from observable qualities such as the colour, weight, and malleability of gold. The real essence, unknown to us, is the ‘constitution...on which those Qualities, and all other Properties of *Gold* depend’ (III.vi.2). We can ‘improve’ our nominal essence through further testing and observation, for instance about the ductility of gold.

Of course gold is not merely a naturally occurring substance but also a thing of high value – a commodity in itself as well as a form of currency used in exchange. Here the properties that gold exhibits (and their constancy) are crucial. The convenient divisibility of gold, the fact that it can be melted and milled, that it is fairly durable and portable, all made it ideal for use as money in domestic and international exchange. Silver possesses the same virtues, and it formed the bulk of the circulating medium in Locke’s period, although its value was lower. Locke remarks on the agreement to adopt these metals as a store of value and basis for creating equivalences in trade in order to conduct transactions in *Two Treatises of Government* (1689) and in his writings on money published during the recoinage crisis in England in the 1690s. Here we enter the domain of the social, political, and economic, but these areas of concern are not detached from nature and natural resources. The scarcity of precious metals is an important feature, as is the labour and cost required to mine and transport them, and the alloys used in creating them into coinage. Furthermore, whatever underlying doubts exist about our knowledge of real essences in the *Essay*, the stability of nature is a working assumption here. Clearly it would be unfortunate for conducting business if nature routinely changed course in this context.

Money constitutes a mixed mode and as such it belongs to a category of ideas in which ‘we have no other sensible Standard, existing any where, but the Name it

self, or the definition of that Name' (II.xxxii.12). The benefit of such terms is that their real and nominal essences are the same, and as a result we can determine precisely 'how far the *Species* extends, or what Things are comprehended under each Term' (IV.vi.4). Yet the discretion we have over mixed modes means that they also suffer from a potential lack of regulation. On the one hand, they allow us to 'fix' species in a way Locke problematizes in relation to substances; on the other, they lack the discipline imposed by an external standard because there is nothing external (in nature) that governs or constrains their usage. The question becomes how these philosophical considerations played out in the midst of the recoinage crisis when the definition of money became crucial.

3. The Recoinage crisis

English currency entered a period of protracted crisis in the 1690s caused by a variety of related factors. The first of these was the problem of clipped coins. The depletion of silver had become so severe in this period that by mid-decade fifty per cent or more of the weight had been removed by illegal clipping.¹³ Two rival solutions to the problem had backing in Parliament: either to devalue the currency, or – as Locke argued – to maintain the existing standard, recalling coins from circulation and re-minting them at full weight (i.e. according to the existing legal standard at the Mint). The principles, if not all aspects of the plan, favoured by Locke and his

¹³ Patrick Hyde Kelly, 'General Introduction: Locke on Money', in *Locke on Money*, 2 vols, edited by Patrick Hyde Kelly (Oxford: Clarendon Press, 1991), Table 4 (I, 116).

supporters prevailed against strong opposition, and in 1696 what is called the Great Recoinage began.¹⁴

The deterioration of England's coinage was closely connected to pressures created by financing military forces during the Nine Years' War against France, which required bullion for remittances to England's armies and allies.¹⁵ This demand encouraged clippers to continue their attack on coin, with the proceeds melted down and exported. The introduction of milled money in 1662, with the crown piece inscribed on the rim with the lettering 'Decus et Tutamen', and smaller coins having a grained edge to make any clipping obvious, offered some protection, but milled money represented only a small percentage of the circulating medium.¹⁶ Full-weight money, whether milled or hammered, was typically hoarded or melted, leaving lightweight hammered coins as the vulnerable medium of exchange. Attempts in Parliament in the early 1690s to address the situation had failed, but action became urgent in 1694/5 as the loss of silver accelerated and the price of guineas rose to new heights (as an alternative store of value). The proposal for a devaluation was initially set around nine per cent in March 1695 but it increased to 20 per cent by September of the year in connection with the higher market rate of silver.¹⁷ In William

¹⁴ See Ming-Hsun Li, *The Great Recoinage of 1696-1699* (London: Weidenfeld and Nicolson, 1963); J. Keith Horsefield, *British Monetary Experiments 1650-1710* (Cambridge, Mass.: Harvard University Press, 1960), chs. 3-6. Key provisions of Locke's proposal were not followed in the Recoinage, including the fact that the government plan compensated holders of clipped coin and allowed for gradual demonetisation of coins, while Locke wanted them to pass immediately only by weight (*not* according to the stamped 'face' value, which no longer corresponded to the actual silver content). See Kelly (note 14), 31-3, 37, 91. On the advantages and disadvantages of this approach, see Li, 68-9.

¹⁵ See D.W. Jones, *War and Economy in the Age of William III and Marlborough* (Oxford: Basil Blackwell, 1988).

¹⁶ For an estimate that milled money amounted to 2% of the total circulation in March 1696 (including newly minted and old milled money), see Kelly (note 14), Table 1 (I, 112).

¹⁷ See Kelly (note 14), I, 20-21, 25.

Lowndes's famous *Report containing an Essay for the Amendment of the Silver Coins*, drafted for the Treasury (Lowndes was appointed secretary in April 1695), he responded by recommending the retention of the existing alloy and weight of coins while raising the denomination to establish an equivalence with the market price of bullion, thereby reducing the incentive for clipping and encouraging holders of full-weight coins to dishoard them.¹⁸ Locke had already entered the debate over the worsening coinage in 1692 with the publication of *Some Considerations of the Consequences of the Lowering of Interest, and Raising the Value of Money*.¹⁹ He then made a series of briefer contributions in connection with debates in Parliament and at committee level before the appearance of his *Further Considerations Concerning Raising the Value of Money* (1695). In all of these writings, he resisted plans to devalue the currency. As Patrick Kelly has remarked, Locke defended a 'new, and in the circumstances revolutionary, doctrine of insisting on the sacrosanctity of the monetary standard'.²⁰

Why should maintaining the existing standard have constituted such a key commitment for Locke? To answer this we need to look more closely at his economic position and his philosophy of language which sheds light on his outlook in this context. His position is not without some surprises given some common assumptions about his work. Locke, ordinarily taken as the advocate of empiricism, took a rigorously definitional approach to the problem and rejected the force of arguments

¹⁸ The option of altering the weight and fineness of the coin attracted little support (Kelly (note 14), I, 62). Generally devaluationists did not favour this approach as their proposals had the advantage of allowing for a revaluation of the coin once the war was over. Kelly (note 14), I, 25.

¹⁹ The prefatory letter was dated 7 November 1691 and copies were available before the year's end.

²⁰ Kelly (note 14), I, 29. See also Sir Albert Feavearyear, *The Pound Sterling: A History of English Money*, 2nd ed. rev. E. Victor Morgan (Oxford: Clarendon Press, 1963): 'The sanctity which Locke attached to the Mint weights was something new' (148).

made by Lowndes, which he based on carefully led historical information regarding previous devaluations. Locke also overlooked additional economic testimony that might have led him to quite different conclusions.

The key point about Locke's philosophy of money is that he assigns the value of any coin to the quantity of pure silver it contains (by weight), not to the denomination stamped on it. The stamp on the coin represents merely a guarantee of value, a 'publick voucher', as he calls it, not the source of value itself.²¹ The giving of names to coins, whether groat, penny, crown or shilling, is purely arbitrary, but the silver content is not. Silver constitutes the 'intrinsic' value of the coin.²²

The notion of 'intrinsic value' is of course paradoxical though highly significant for Locke. In the *Second Treatise*, Locke equated intrinsic value with use value.²³ However, in *Some Considerations*, Locke observed that the determination by people to 'put an imaginary Value upon Gold and Silver' (itself taking place at an imaginary historical moment, rather like the transition from the state of nature) transformed the situation. Gold and silver created a store of value and by 'general consent' they became 'common Pledges, whereby Men are assured, in Exchange for them to receive equally valuable things to those they parted with for any *quantity* of these Metals'.²⁴ The emphasis on quantity, as we will see, is all important, but for the moment I wish to stress the change of meaning to the concept of 'intrinsic value' brought about by this development. Locke recognizes the arbitrariness, in a sense, of

²¹ John Locke, *Some Considerations of the Consequences of the Lowering of Interest, and Raising the Value of Money* [1692], in *Locke on Money*, 2 vols, edited by Patrick Hyde Kelly (Oxford: Clarendon Press, 1991), I, 312.

²² See Kelly (note 14), I, 82-3; 86-7.

²³ John Locke, *Two Treatises of Government*, edited by Peter Laslett, 2nd ed. (Cambridge, 1967), II.37. Patrick Kelly points out that this derives from Locke's early writings on interest: "'All Things Richly to Enjoy": Economics and Politics in Locke's *Two Treatises of Government*', *Political Studies*, 36 (1988), 286.

²⁴ Locke (note 22), I, 233.

choosing gold and silver rather than something else as a pledge and store of value, but once the decision has been made by ‘tacit Agreement’ to place a value on them,²⁵ the situation changes and the metals themselves are said to possess intrinsic value. As he states in *Some Considerations*, ‘For they [gold and silver] having as money no other Value, but as Pledges to procure, what one wants or desires; and they procuring what we want or desire, only by their *quantity*, ’tis evident that the intrinsick Value of silver and gold used in Commerce is nothing but their *quantity*.’²⁶ There is more than a hint of circularity in this definition; nonetheless, Locke is insistent that quantity is decisive. Given that the valuation of money form is a matter of convention it would be possible to envision a less restrictive account, allowing money to function socially according to agreements to value things independently of their quantity (by stamp or name, not weight) but Locke rejects this move.²⁷ He clearly wants to locate value somewhere in connection with observable and measurable properties such as weight, not in the imagination or purely social convention. His orientation has clear analogies with the predicament associated with nominal and real essences in which Locke tries to tie down our usage whenever possible.

Lightweight coins pose a problem because the denomination no longer corresponds to the vouched silver content which has been filed or shaved away. When they pass as current – in other words, when they are accepted at face value rather than in terms of their actual weight in silver – they deprive the public of ‘real value’ by the

²⁵ Locke (note 24), II.36.

²⁶ Locke (note 22), I, 234.

²⁷ For a challenge to Locke on this point, see Nicholas Barbon, *A Discourse Concerning Coining the New Money lighter* (London, 1696). Locke might also have used this point to allow greater scope for a credit economy in which paper currency of one kind and another circulated. Such a possibility, opening up at this historical moment, seems not to have attracted him.

percentage of their reduction.²⁸ Domestically, this alteration or departure from the standard may not have immediate consequences. But the foreign merchant, according to Locke, reaps the advantage of the failure to maintain a consistent adherence to the value of silver. In Locke's terms, this situation 'puts into the Hands of Foreigners [the power] to fetch away your Money without any Commodities for it'. He elaborates on the profit realised by outsiders:

For if they find that Two-Penny weight of Silver, marked with a certain Impression, shall here in England be equivalent to 3d weight mark'd with another Impression; they will not fail to stamp Pieces of that Fashion; and so Importing that base and low Coin, wil here in England, receive 3d for 2d, and quickly carry away your Silver in exchange for Copper, or barely the charge of Coynage.²⁹

Locke refers here to the encouragement of counterfeiting caused by the disparity in valuation, but the underlying problem was the creation of arbitrage opportunities. Foreigners identified a discrepancy in price which they actively exploited. Arbitrage requires two separate markets in order to work; hence the privileged position of the 'foreigner' as someone with ready access to these distinct locations. Locke positions them as insisting on a standard of value that transcends the state.³⁰ Whatever their

²⁸ Locke (note 22), I, 307. Despite the strictness of Locke's definition it is worth bearing in mind that ostensibly 'full weight' hammered coins varied considerably in their actual weight (as they were worked by hand and were difficult to standardise, with heavy coins being candidates for melting down to realise the extra silver content). Even in the case of milled money, according to Isaac Newton's estimate, one quarter of the coins were sufficiently overweight to make them worth melting. See Kelly (note 14), I, 45.

²⁹ Locke (note 22), I, 308. Davenant (note 4), 46, affirmed the possibility that foreign traders could counterfeit light money 'and thereby traffic here at ye same advantage'.

³⁰ For the purposes of his argument, Locke implicitly denies that arbitrage is open to English nationals who remain within the country and routinely ignore the difference between the value of the coin in tale and the value as constituted by its weight in silver. In fact, English traders could have exploited the opportunity just as easily so

motivation, they perform a vital role for this reason; the fault in creating the opening lies with English coinage and the allowed circulation of lightweight coin.

Locke entertains a possible objection to his maintenance of silver content as the standard of value. If, as some allege, £100 of clipped money which is lighter by five per cent than the standard buys as much in the way of commodities as £100 of full weight or milled money, then ‘it is evident, that my Rule fails, and that it is not the quantity of Silver, that gives the value to Money, but its Stamp and Denomination’.³¹ Locke acknowledges that this conclusion is valid so as long as people routinely accept lightweight coin instead of full-weight in ordinary transactions.³² While this practice continues, it is possible to regulate the economy

long as they had access to markets outside the state in which to operate. Stephen Quinn, ‘Gold, Silver, and the Glorious Revolution: Arbitrage between Bills of Exchange and Bullion’, *Economic History Review*, 44:3 (1996), 473-90, focuses in part on the career of one such arbitrageur, the London goldsmith-banker Stephen Evance, demonstrating the potential for English exploitation of this opportunity. In terms of Locke’s argument, he would have seen such a figure simply as a ‘factor’ of the foreign merchant (note 22), I, 322. Quinn’s account shows that the arbitrage arrangement was complex, involving trading between gold, silver and bills of exchange. See also Larry Neal and Stephen Quinn, ‘Markets and Institutions in the Rise of London as a Financial Center in the Seventeenth Century’, in *Finance, Intermediaries, and Economic Development*, edited by Stanley Engerman, Philip Hoffman, Jean-Laurent Rosenthal and Kenneth L. Sokoloff (Cambridge: Cambridge University Press, 2003), 20-23.

³¹ Locke (note 22), I, 319.

³² ‘*Clip’d and unclip’d Money will always buy an equal quantity of any thing else, as long as they will without scruple change one for another*’ (Locke (note 22), I, 319). In *Further Considerations Concerning Raising the Value of Money* [1695], in *Locke on Money*, 2 vols, edited by Patrick Hyde Kelly (Oxford: Clarendon Press, 1991), II, 469, Locke was more explicit. This point indicates that Joyce Appleby is in error when she asserts that ‘It was central to Locke’s argument to deny that clipped coin ever passed at face value’. ‘Locke, Liberalism, and the Natural Law of Money’, *Past & Present*, no. 71 (May 1976), 66 (see also 49). He knew very well that this was happening, confirmed for example in his ‘Answer to My Lord Keepers Queries’ (in *Locke on Money*, II, 387). Locke went on to point out that the receipt of lightweight coin by the government in payment of taxes and by landlords encouraged the public to follow suit (*Further Considerations*, in *Locke on Money*, II, 469). But he argued that such an arrangement was not viable in the long term; the fault was made plain by foreign traders, while the use of lightweight money, according to Locke’s principles, was fraudulent. One may wonder, given that both parties accepted the coin by tale, not

internally with coins of different silver weight that share the same stamp. Yet the foreign merchant intrudes on this situation once again and holds everyone to an independent standard. When he ‘comes to sell his Goods to you, [he] always counts upon the Value of your Money by the Silver that is in it; and estimates the quantity of Silver by the Standard of your Mint’.³³ If the merchant remains internal to the system, trading his wares within the country, he too might accept the lightweight coinage by its stamp not its silver content. But the scenario changes when the amount of clipped money in circulation becomes so great that proper (undamaged) money cannot be readily obtained or exchanged without additional charge. The trader then has no choice in the matter but to contract for payment either in ‘weighty Money or else raise the Price of his Commodities according to the diminish’d quantity of Silver in your Current Coin’.³⁴ The inflationary consequences of a devalued currency cannot be avoided.

The English needed to learn from this because it showed that ‘it is the quantity of Silver that buys Commodities and Pays Debts, and not the Stamp and Denomination that is put upon it’.³⁵ Locke suggests that when certain economic conditions prevail the role of silver as source of value becomes all too apparent: if the foreign merchant can readily obtain full-weight money in exchange for his goods, then no problem arises, whatever the condition of the coinage more generally. But when a sufficient amount of the money supply has been compromised by clipping,

weight, whether any fraud was actually involved, but this is a different objection to Appleby’s.

³³ Locke (note 22), I, 319. Sir Richard Temple disputed Locke’s account of how foreign merchants conducted business in *Some Short Remarks upon Mr. Lock’s Book, in Answer to Mr. Lounds* (London, 1696), reprinted in William A. Shaw, *Select Tracts and Documents Illustrative of English Monetary History 1626-1730* (1896; London: George Harding, 1935), 113-17. Temple argues that the foreign trader reckons profit on the basis of foreign exchange between his own currency and England’s.

³⁴ Locke (note 22), I, 320.

³⁵ Locke (note 22), I, 322.

and full-weight coin has disappeared from circulation, then silver demonstrates its status as the ultimate measure of value. However, it should be noted that while Locke treats the demand and receipt of full-weight silver money as the norm, his proof of silver's sovereign position becomes valid only at the moment that people refuse to accept clipped coins for 'weighty' ones, which implies that beforehand they have exchanged them freely. Thus it becomes a contingent question of when silver asserts itself rather than axiomatic that traders do business only in terms of it.

The alternative to Locke's plan to restore the coin to its full weight was set out by William Lowndes in September 1695. He based his proposal on a devaluation, achieved by raising the rating of silver in terms of the unit of account and introducing a number of coins with new names (with the exception of the crown piece which he retained but at a reduced weight in silver).³⁶ In *Some Considerations* (1692), Locke had already rejected such a strategy of across-the-board devaluation. In his estimation, this mistaken approach somehow assumed that denomination constituted the source of value, while he attributed it to silver content alone. To proceed in this way was to value things merely by strength of persuasion, an internal conviction grounded in nothing outside itself. Locke wonders what would put a stop to the endless raising of names:

If it be good to raise the Crown Pieces this way One twentieth this Week, I suppose it will be as good and profitable to raise it as much again the next Week. For there is no reason, why it will not be as good to raise it again another One twentieth the next Week, and so on; wherein, if you proceed but 10 Weeks successively, you will by New-years-Day next have every Half-

³⁶ See William Lowndes, *A Report containing an Essay for the Amendment of the Silver Coins* (London, 1695), signed on 12 September but not printed until November 1695 (Kelly (note 14), I, 24).

Crown raised to a Crown...And if you please to go on in this beneficial way of raising your Money, you may by the same Art bring a Penny-weight of Silver to be a Crown.³⁷

Although his *reductio* serves its purpose rhetorically, he deliberately travesties the strategy behind devaluation which was to change the rating of coin only to the point of equalising with the market rate for silver bullion.

For Locke, we are not entitled to endow things with value according to self-generated standards or subjective criteria, despite the fact that money qualifies as a mixed mode under human control. Locke responds by stabilising value in reference to something objective – the weight of coin in silver. While he emphasises the impact of a devaluation on the price of commodities, the defrauding of creditors, and the prejudice to crown revenue, he also returns again to his trope of the foreigner, external to the system, who detects the cheat. The change of valuation cannot remain a ‘secret concealed from Strangers’,³⁸ and therefore they will raise the price of their wares in line with the percentage increase in the value of the currency. As one of Locke’s supporters put it: ‘Foreigners were not imposed upon by our Mistakes: They considered not the Nominal, but the Real Value of our Coin; and sold us their Commodities too at proportionable Rates. But especially they taught us the true Estimate of our imaginary Riches, by the course of Exchange between their Money and ours’.³⁹ The problem is precisely the imaginary nature of the wealth created by false denominations detached from the standard.⁴⁰

³⁷ Locke (note 22), I, 311. This argument was repeated by a supporter of Locke’s in *A Review of the Universal Remedy for all Diseases Incident to Coin. With Application to our Present Circumstance. In a Letter to Mr. Locke* (London, 1696), 20.

³⁸ Locke (note 22), I, 313.

³⁹ *Review* (note 38), 13.

⁴⁰ For the response of Locke’s contemporary critics see Kelly (note 14); Li (note 15); Horsefield (note 15); Appleby (note 33).

Locke considers a second form of intervention to raise the value of coin, this time in relation to gold. The market establishes a ratio between the two metals. If by legal means the rate of guineas in relation to silver rose by five per cent, then foreigners would exploit the opportunity yet again. They would send over gold, and in Locke's words, 'fetch away our Silver at 5 per Cent. profit, and so much loss to us'.⁴¹ Conversely, if the rating of gold goes down relative to silver, then the same thing happens in reverse: 'For then strangers would bring in Silver, and carry away your gold, which was to be had here at a lower rate than any where else'.⁴² As he clarified in his *Further Considerations*, such a practice 'would do well enough, if our Money and Trade were to Circulate only amongst our Selves, and we had no Commerce with the rest of the World',⁴³ but the moment we enter into international trade, the problem is exposed. In the case of overvalued gold, the foreign merchant makes off with as much as thirty per cent profit (the guinea having risen from 21s. to 30s. at the height of the coinage crisis). By exploiting the overvaluation, the foreign merchant settles his account in England with gold from his own country. In fact they might as well be paying in money 'coin'd and clip'd beyond Sea' that lacked a huge amount of its silver content: for 'thus we lose near One third in all our Exportation, while Foreign gold Imported is received in Payment for Thirty Shillings a Guinea'.⁴⁴ Once more, an external intervention serves to correct a system of value that might otherwise be viable internally. Whatever we may fancy, no law can introduce a lasting proportion

⁴¹ Locke (note 22), I, 323.

⁴² Locke (note 22), I, 324. This scenario is in fact closer to the kinds of arbitrage that actually occurred at this time. See Quinn (note 31).

⁴³ Locke (note 33), II, 469.

⁴⁴ Locke (note 33), II, 469. For the increase in gold in circulation in England between 1693 and 1698 see Kelly (note 14), I, 66, and Table 1 (I, 112-13). See also Richard A. Kleer, "'The ruine of their Diana': Lowndes, Locke, and the Bankers', *History of Political Economy*, 36:3 (2004), 537, on arbitrage in gold, and 542 on the exportation of silver to buy gold overseas and reimport it.

between the two metals, which will always vary according to the market. If, for example, we set the par at fifteen ounces of silver to one ounce of gold when the market rate in other countries has it at sixteen to one, Locke asks, 'Will they not send hither their Silver or fetch away your Gold at One sixteen loss to you?'⁴⁵

Although the rising price of gold in England was directly related to the deterioration of the silver coinage, the problem Locke describes was in fact endemic in a bimetallic system where the bullion prices of the two fluctuated in international markets. Any variation between them would create the potential for arbitrage, as he makes clear, an issue exacerbated when setting by law the rate at which gold would be received at the Mint. To the extent that legal authority has a role to play, Locke confines it to stamping gold coin to ensure only its weight and fineness, rather than assigning it a fixed price relative to the unit of account.⁴⁶ But Locke's strategy of leaving it to the market to determine the relative value of the two metals is only a partial solution. He assumes that England's market rate will equalise with the rate in other countries and thus cut arbitrage out of the equation. But internal factors specific to the English economy would have a bearing on the price ratio in the country, as well as international developments in exchange rates and devaluation, making it an open question what proportionality would result at any given time (as he elsewhere suggests).⁴⁷

The real problem with gold is that it represents a rival standard to silver. This prompts Locke, in his reiteration of first principles, to state that 'it is in the Interest of

⁴⁵ Locke (note 22), I, 327.

⁴⁶ Locke (note 22), I, 327-8.

⁴⁷ Locke observes that there are 'no two things in Nature, whose proportion, and use does not vary, 'tis impossible to set a standing regular price between them' (note 22, I, 328). The rising price of gold was also caused by a shift in world gold/silver ratios. In 1692, Locke put it at 15.5:1 and in 1695 at 16:1. The ratio had begun to change in the Far East from the 1670s.

every country, that all the current money of it should be of one and the same Metal; That the several Species should be all of the same Alloy, and none of a baser mixture: And that the Standard once thus settled, should be Inviolably and Immutably kept to perpetuity'.⁴⁸ By giving gold a fix rating at which it was received, a situation developed in which rival standards vie within one another in the same system. Gold had become another form of measurement intruding on the province of silver as the legal money of the country.⁴⁹ Locke's statement calls attention to the role that a standard plays in his thinking on the subject, and the necessity that the standard should remain fixed and permanent. He resisted the conclusion that a devaluation would simply recognise an existing state of affairs by re-rating the coin. For him, the move represented an abandonment of a standard rather than an introduction of a new one. As for clipped coins, their circulation created a predicament in which 'tis no wonder if the price and value of things be confounded and uncertain, when the Measure it self is lost'.⁵⁰

4. Money and mixed modes

The most extensive discussion of Locke's position on money has been provided by Constantine George Caffentzis in *Clipped Coins, Abused Words & Civil Government: John Locke's Philosophy of Money*.⁵¹ Caffentzis maintains two central theses: first, that Locke's identification of money with silver leads to the conclusion

⁴⁸ Locke (note 22), I, 329.

⁴⁹ 'Money is the *measure* of Commerce, and the rate of every thing, and therefore ought to be kept (as all other measures) as steady and invariable as may be. But this cannot be, if your Money be made of two Metals, whose proportion, and consequently whose price, constantly varies in respect of one another' (Locke (note 22), I, 326).

⁵⁰ Locke (note 33), II, 430.

⁵¹ Constantine George Caffentzis, *Clipped Coins, Abused Words, & Civil Government: John Locke's Philosophy of Money* (New York: Automedia, 1989).

that silver's value in terms of property corresponds to its content by weight; the political responsibility of government to preserve property is paramount and therefore militates against a devaluation, which would effectively diminish the amount of silver by raising its rating. As Locke puts it in *Further Considerations*, such a plan represents 'a publick failure of Justice, thus arbitrarily to give one Man's Right and Possession to another'.⁵² Second, Caffentzis explores the significance of the fact that on Locke's theory of language, money is a 'mixed mode'; words of this kind have some distinctive features that potentially destabilise their meaning. Caffentzis argues that in order to protect against this danger Locke holds on to silver as a 'substance' that is less liable to manipulation of the linguistic variety that he detects in the strategies of devaluationists. This point deserves further discussion. Some crucial philosophical complications come into relief when we consider this question.

Mixed modes draw together ideas, both simple and complex, to form new concepts, but they have no referent in the world to secure them. Rather, their meaning corresponds to definitions supplied by individual language users who must employ them with care and consistency. Without these words, the richness of our social and intellectual life would be radically diminished, but they suffer from constant threats of abuse, changes of usage, and conflicts of interpretation. Caffentzis rightly sees mixed modes as an area of potential linguistic instability because individuals are entitled to define them according to their own internal archetypes. This feature means that the capacity of others to intervene and correct their usage is therefore highly circumscribed if not completely non-existent. As Caffentzis presents the issue, Locke's philosophy of money represents an attempt to counter Lowndes's position

⁵² Locke (note 33), II, 416.

because Lowndes would have reduced money to the status of a mixed mode.⁵³

Lowndes's endorsement of devaluation would shift the accepted definition of money, but Locke's privileging of silver – according to Caffentzis – gives him a way to resist Lowndes. Silver is a substance, and because it is a substance Locke can treat it as resilient against improper manipulation.⁵⁴

Locke's dilemma is really much deeper. We can start with the fact that silver's status as a substance does not in itself transform the situation, for two reasons. Mixed modes, as Locke makes clear, are complexes of ideas and in certain instances they include ideas of substances.⁵⁵ Thus the mere reference to silver is insufficient to avoid the 'reduction' of money to a mixed mode. More to the point, neither Lowndes nor Locke's critics, like Nicholas Barbon, advocated the elimination of silver from the coinage altogether; the contest was over its rating in terms of the unit of account (whether 5s. 2d. per ounce or 6s. 3d.). In this context, Locke was defending silver according to its current legal weight against efforts to introduce an alteration. Locke actually remarked in *Further Considerations* that the weight set for the coin in the past was relatively unimportant – it might have been a fifth higher or a fifth lower than at present without making much difference – but it did matter how long the standard had been in place. 'The Harm comes by the change, which unreasonably and unjustly gives away and transfers Mens properties, disorders Trade, Puzzels

⁵³ Caffentzis (note 52), 105, 114.

⁵⁴ Caffentzis (note 52), 114-15.

⁵⁵ Locke is explicit about this in the *Essay*, III.xi.16: 'Nor let any one object, that the names of Substances are often to be made use of in Morality, as well as those of Modes, from which will arise Obscurity. For as to Substances, when concerned in moral Discourses, their divers Natures are not so much enquir'd into, as supposed; v.g. when we say that *Man is subject to Law*: We mean nothing by Man but a corporeal rational Creature: What the real Essence or other Qualities of that Creature are in this Case, is no way considered. And therefore, whether a Child or Changeling be a *Man* in a physical Sense, may amongst the Naturalists be as disputable as it will, it concerns not at all the *moral Man*, as I may call him, which is this immoveable unchangeable *Idea, a corporeal rational Being*.'

Accounts, and needs a new Arithmetick to cast up Reckonings, and keep Accounts in'.⁵⁶ Lowndes had accumulated a series of examples to indicate that changes of valuation in silver had occurred frequently in English history, so Locke is really making an essentially conservative and pragmatic argument rather than one that rests on absolute and incontrovertible principle. What he wants to protect is the standard and we need to investigate more fully why he saw devaluation as an unwarranted violation of the standard rather than the introduction of a new one, necessitated by changing economic circumstances.

Locke's appeal to a standard here and his rejection of innovation resonate in important ways with his philosophy of language. Locke himself draws an instructive analogy between language and money in Book III of the *Essay* where we get a clear sense of his priorities, yet we can also recognise the limited room within his system for invalidating opposing schemes of language use or monetary theory. He creates a structure in both spheres in which an opposition exists between internally self-regulating systems of meaning and others based on intersubjective standards or measures of value. Locke's preference for the intersubjective and external may be obvious, but uncertainty remains about whether he can compel acceptance of his favoured option and invalidate the alternative. In the *Essay*, Locke remarks: 'For Words, especially of Languages already framed, being no Man's private possession, but the common measure of Commerce and Communication, 'tis not for any one, at pleasure, to change the Stamp they are current in; nor alter the *Ideas* they are affixed to; or at least when there is a necessity to do so, he is bound to give notice of it' (III.xi.11). He positions language as a common possession and words as a system of measurement. Employing a monetary metaphor, he objects that changing the stamp,

⁵⁶ Locke (note 33), II, 463.

where language and meaning, word and idea, have a settled relationship or currency, is improper. Yet even here Locke acknowledges that circumstances of necessity may require a change, in which case language users have a responsibility to provide notification. Insofar as this comment parallels the debate over devaluation, Parliament would discharge its duty by informing the public of the new values placed on English coin. Locke formulates a similar principle in his discussion of money, arguing that once the standard weight of coin has been established by ‘publick Authority’, it should not be altered ‘till there were an absolute necessity shewn of such a change’, but Locke does not believe that such a situation could ever arise. The reason for this comes back to the stamp as a guarantee of what he calls the ‘performance of all legal Contracts’.⁵⁷

But what of mixed modes specifically? These terms are especially difficult to police because they depend, ultimately, on definitions supplied and superintended by individuals.⁵⁸ As I mentioned in the introduction, Locke calls them ‘voluntary Combinations’ of ideas which differ from ideas of substances because ‘the Essence of each Species [is]...made by Men alone, whereof we have no other sensible Standard, existing any where, but the Name it self, or the definition of that Name’. In the end, we have ‘nothing else to refer these our *Ideas* of mixed modes to as a Standard, to which we would conform them, but the *Ideas* of those, who are thought to use those Names in their most proper Significations’ (II.xxxii.12). Money as a mixed mode is therefore subject to innovation in definition, with the ‘species’ designated not by nature but by the user. Yet money is still crucially a matter of social compact.

⁵⁷ Locke (note 33), II, 415.

⁵⁸ On this point see Paul Guyer, ‘Locke’s Philosophy of Language’, in *The Cambridge Companion to Locke*, edited by Vere Chappell (Cambridge: Cambridge University Press, 1994), 141.

These comments explain a great deal about Locke's approach to his discussion of money. In his prefatory letter to *Further Considerations*, Locke remarked on the 'Mysterious Business of Money', bedevilled by 'hard, obscure and doubtful Words, wherewith Men are often misled and mislead others'.⁵⁹ Locke clearly wanted to present himself as someone who used words in their 'proper signification', enabling others to rectify their language and thinking about the issue and to 'conform' themselves to his notions accordingly.⁶⁰ Consistent with the fact that so many of the key terms under discussion represented mixed modes (like money, coin, or interest), Locke concentrated to a large extent on offering definitions.⁶¹ But Locke's guidance in the matter is not philosophically binding. Mixed modes remain 'voluntary Collections' precisely because no pattern fixes them; they vary considerably from person to person in the absence of a 'standing Rule to regulate themselves, and their Notions by, in such arbitrary *Ideas*' (III.ix.7).

Locke provides a number of different examples of mixed modes. As Nicholas Jolley observes, they appear to be 'hybrids of natural and non-natural properties, whether normative or institutional'.⁶² The majority of them relate to actions whose meaning is partly moral and social. However much they refer to events or entities in the world, their meaning exceeds simple denotative reference. Locke includes words describing moral actions, such as murder and sacrilege (III.ix.7), incest and adultery (III.v.3), abstract concepts like justice, cruelty, liberality, gratitude, glory (II.xxxii.10-

⁵⁹ Locke (note 33), II, 403.

⁶⁰ Locke comments in the *Essay*, III.xi.11: 'The proper signification and use of Terms is best to be learned from those, who in their Writings and Discourses, appear to have had the clearest Notions, and apply'd to them their Terms with the exactest choice and fitness.'

⁶¹ On the advantages and disadvantages of Locke's definitional approach in economic matters, see Douglas Vickers, *Studies in the Theory of Money 1690-1776* (1959; New York: Augustus M. Kelly, 1968), 52-3, 60.

⁶² Nicholas Jolley, *Locke: His Philosophical Thought* (Oxford: Oxford University Press, 1999), 159.

11), and hypocrisy (II.xxii.2), and what might be called social ‘events’ such as processions (III.v.13) or triumphs (II.xxii.8). Money counts as a mixed mode because it likewise includes reference to something that exists physically but whose meaning is not contained or completed by that reference; to understand it fully we would have to take account of its role as a socially instituted practice and its normative function, as Locke does in his discussion.

Locke attempts to introduce an unvarying standard that would stabilise the meaning of money through his appeal to silver by weight, but it is not clear that he can limit the definition of the term in such a way as to rule out a different one, in which money was not understood as a fixed quantity of silver but rather as the unit of account, subject to periodic variation – for example, according to the bullion price of silver. If we consider other examples of mixed modes cited by Locke, specifically moral terminology, an interesting pattern emerges in which Locke searches for an external standard or measure that certifies meaning. Potentially such words would be subject to disputed definitions on Locke’s account of mixed modes, but he introduces an important limitation. As Locke puts it in the *Essay*, ‘where God, or any other Law-maker, hath defined any Moral Names, there they have made the Essence of that Species to which that Name belongs; and there it is not safe to apply or use them otherwise’ (IV.iv.10). The definitions of species in this context come, then, from an external source; either God or government sets their meaning. In his unpublished essay ‘Of Ethick in General’ Locke elaborates on the point that such terms are not subject to the whim of personal definitions: ‘these notions or standards of our actions not being Ideas of our own makeing, to which we give names, but depend upon some thing without us & soe not made by us but for us & these are the rules set to our actions by the declard will or laws of another who hath power to punish our

aberrations'.⁶³ The importance for Locke of possessing a determinate, external standard could not be more clear.

Locke's aspiration in the case of money to locate an equivalent fixed standard becomes more intelligible in light of these remarks. Although no direction from the divine on the issue of money was available or expected, this did not mean that Locke would resign the search for an external rule to govern monetary exchange. He acknowledged that economies could run themselves on the basis of internally adopted names and measures for their currency, that is, on a fiduciary system in which a nominal value is assigned to coins independently of their silver content. This situation developed in England when clipped coins circulated by tale, i.e., according to the face value and not by their weight in silver. They were accepted not only in ordinary commercial transactions,⁶⁴ but also, importantly, by the Exchequer in payment of taxes.⁶⁵ But as Locke presented it, such a practice ('internal' to the country) was fundamentally mistaken and unsustainable. The operation of an external, independent standard of value becomes clear when we attend to the foreign merchant who exploits the disparity between the face value and actual weight of silver in the coin. This arbitrage opportunity reveals that the standard is not in the possession of England as an individual country to alter as it sees fit but exists independently in an international market. Locke's impulse then is to adhere, above all, to silver as the standard by its weight.

⁶³ John Locke, 'Of Ethick in General', in *Writings on Religion*, edited by Victor Nuovo (Oxford: Clarendon Press, 2002), 13.

⁶⁴ See Appleby (note 33), 46, with references to contemporary sources on this subject.

⁶⁵ See Locke, 'Guineas', in *Locke on Money*, 2 vols, edited by Patrick Hyde Kelly (Oxford: Clarendon Press, 1991), II, 363-4. Locke maintains that the state's continued acceptance of lightweight coin was responsible for keeping up the internal purchasing power of the depleted currency. Noted by Kelly (note 14), I, 26.

Although Locke presented his principles as axiomatic, the potential for disputing them – afforded by the fact that money is a mixed mode and therefore a matter of ‘definition’ – becomes clear when we attend to the response of some of his contemporaries. Nicholas Barbon was especially acerbic in his reply. In answer to the view that the value of money consists solely of the silver content of coin by weight, Barbon asserted flatly that ‘*Mr. Lock is mistaken in his supposition*’. He maintained, by contrast, that ‘Money has its Value from the Authority of that Government where it is Coin’d, by which it is made Current and Lawful Money’ and furthermore that any contracts were made according to this standard (and not by weight).⁶⁶ In other words – contra Locke – names *did* have the power of giving or enhancing value. Barbon wrote in support of ‘raising’ the coinage, that is, for a devaluation which would ‘raise’ the rating of the currency. Before the crisis began he had already announced similar convictions, arguing in his *Discourse of Trade* (1690) that ‘It is not absolutely necessary, Money should be made of Gold or Silver; for having its sole Value from the Law, it is not Material upon what Metal the Stamp be set. Money hath the same Value, and performs the same Uses, if it be made of Brass, Copper, Tin, or any thing else.’ In his view the high price (or value, as he called it) set on precious metals resulted from scarcity rather than any ‘Intrinsick Vertue or Quality in the Metals’.⁶⁷ Returning to the point that ‘intrinsic value’ really came from use (also raised in Locke’s *Second Treatise*), he held that the African who exchanged gold for iron implements made the better bargain since iron was so much more useful than either gold or silver.⁶⁸

In a somewhat more cautious analysis published in 1696, a certain R. Ford advocated ‘raising’ the silver currency in opposition to the plan Locke endorsed of

⁶⁶ Barbon (note 28), 86.

⁶⁷ Nicholas Barbon, *A Discourse of Trade* (London, 1690), 21, 26.

⁶⁸ Barbon (note 28), 26-7.

retaining the existing standard. He began by accepting that ‘Real and Intrinsic’ value (registered in terms of silver content) could be legitimately distinguished from ‘Nominal and Imaginary’ value added in a ‘raised’ coinage, and he acknowledged that the condition of the coinage (clipped vs. unclipped) had some bearing on the price of goods. But the proportionality between depleted silver and increased price was not sufficiently constant to demonstrate that the value came solely from silver. In fact, the enhanced rating of coin would have more purchasing power. The real and intrinsic value might represent the major part of it, but ‘Extrinsic Value and Denomination’ also played a role, encouraging people to accept it at a higher rate.⁶⁹ This he proved by noting that silver had been depleted by 50 per cent from coins but prices had not risen by the same amount; furthermore the price rises that had occurred came about from increased demand, occasioned partly by the difficulty of importing goods in wartime. Nor had the exchange rate with Dutch currency worsened by 50 per cent – the difference was closer to 30 per cent. He concluded forcefully:

Whence it follows, that the same weight of Gold and Silver valu’d at a higher rate, will go further in purchasing Commodities, as well as in Tale, than the same weight, if a lower Value be fixed; since our Clipt and Counterfeit Money buyes more Commodities of any sort in proportion to its real and intrinsic Value, than our Money, when in its best estate, ever did in proportion to the real and intrinsic Value thereof at that time.⁷⁰

Whether Locke would have accepted these arguments is another matter; they expose not merely differences of opinion but the fact that Locke’s attempt to make his position the only one consonant with reason did not succeed. The difficulty with

⁶⁹ R. Ford, *A Further Attempt towards the Reformation of the Coin. With Expedients for preventing the stop of Commerce during the Re-coinage, and Supplying the mint with a sufficient quantity of bullion* (London, 1696), 9.

⁷⁰ Ford (note 70), 10-11.

mixed modes was clearly endemic. We are now in a position to return to the question of species.

5. The Species of money

In discussions of monetary matters, the word species was used in several senses in this period. One of the more common forms was connected with ‘specie’ – that is, money in coin (as opposed to bullion). In this context, ‘species’ was the plural, tantamount to the volume of the circulating medium in its entirety. Thus Barbon referred to one effect of ‘raising’ the value of money that it ‘*increases the species of the Money*’,⁷¹ whereas Locke’s proposal would have caused a contraction of the money supply. Charles Davenant employed the term with the same meaning in his *Discourses on the Publick Revenues, and on the Trade of England* (1698) when he remarked that London had become ‘Owner and Mistress of almost the whole species of Silver’.⁷² A different meaning of species comes into play in Locke’s *Further Considerations* where he deploys the term to differentiate between the various coins that make up English currency, whether crown, half-crown, or shilling, etc., as when he remarks on keeping ‘each species in its full weight of Silver’.⁷³ Each one constitutes a separate ‘species’ in this usage. In William Lowndes important *Report*, use of the term appears in a number of ways, at some points in keeping with Locke’s

⁷¹ Barbon (note 28), 85. See also 94. Lowndes (note 37) made the same point in his *Report*, using ‘species’ in this sense (83).

⁷² Charles Davenant, *Discourses on the Publick Revenues, and on the Trade of England* (London, 1698), 49. See also 51, 52.

⁷³ Locke (note 33), II, 433. Locke follows the same usage in *Some Considerations* (Locke (note 22), I, 306-9, 315); and in his *Short Observations on a Printed Paper, Intituled, For encouraging the Coining Silver Money in England, and after for keeping it here* (1695), in *Locke on Money*, 2 vols, edited by Patrick Hyde Kelly (Oxford: Clarendon Press, 1991), II, 353.

designation of different coins and at other times to indicate the total volume of currency. But he also employed it in two other suggestive ways. On one occasion he referred to hoarded, unclipped coins as constituting a separate species; and more suggestively still, to the plan for a recoinage based on ‘raising’ the rating of coin as something that would ‘produce a Species of Money that may be Useful and Serviceable for the Upholding of the Commerce’.⁷⁴ Here the capacity of species to develop into new forms is stressed.

This implicitly creative power to establish new species became the subject of intriguing discussions at this historical moment. I will look at two publications which addressed this possibility, one advocating it, and another – written as a letter to Locke – deploring it in moral and economic terms. We can sharpen our sense of Locke’s outlook on species and mixed modes, I would argue, by attending to these contributions.

The era in which these developments took place has become known as the Financial Revolution, associated with the establishment of a national (as opposed to royal) debt with the foundation of the Bank of England in 1694, and the introduction of a host of innovative financial instruments funded in different ways that would ultimately transform the country’s prospects and military potential across the eighteenth century.⁷⁵ The Bank of England was not the only major banking scheme

⁷⁴ Lowndes (note 37), 109. On the ‘species’ of unclipped coins, 85-6; on species as the totality of money, 76, 83, 113; on individual coins as species, 9, 62, 71.

⁷⁵ See Anne L. Murphy, *The Origins of English Financial Markets: Investment and Speculation before the South Sea Bubble* (Cambridge: Cambridge University Press, 2009); Carl Wennerlind, *Casualties of Credit: The English Financial Revolution 1620-1720* (Cambridge, Mass.: Harvard University Press, 2011); Bruce G. Carruthers, *City of Capital: Politics and Markets in the English Financial Revolution* (Princeton: Princeton University Press, 1996). The classic works on this subject are by P.G.M. Dickson, *The Financial Revolution in England: A Study in the Development of Public Credit 1688-1756* (London: Macmillan, 1967); and John Brewer, *The Sinews of Power: War, Money and the English State, 1688-1783* (London: Routledge, 1989);

proposed at this time, although its survival and success has obscured other attempts to expand credit with securities of one kind and another. In particular, proponents of a land bank, aligned with a Tory interest, came forward.⁷⁶ Nicholas Barbon teamed with John Asgill to launch a land bank in 1695, which managed to attract substantial subscriptions (though little money actually appeared);⁷⁷ when this project joined with the rival land bank of John Briscoe, with the grant of a charter in 1696, the project disastrously failed.⁷⁸ In one of his contributions during this period, Briscoe argued that the ‘Scarcity of Money’ was such that England had to ‘create some new *Species* of Money’ in order to facilitate commerce.⁷⁹

The conceptualization of such a scheme was developed at length by Asgill in *Several Assertions Proved, in Order to Create another Species of Money than Gold and Silver* (1696). He adopted a logical form, moving from explicitly stated premises to the conclusion that the critical state of English currency and credit led to ‘the

see also the briefer but valuable study by Henry Roseveare, *The Financial Revolution 1660–1760* (London: Longman, 1991). For a review across the period, see Daniel Carey, ‘An Empire of Credit: English, Scottish, Irish, and American Contexts’, in *The Empire of Credit: The Financial Revolution in the British Atlantic World, 1688-1815*, edited by Daniel Carey and Christopher J. Finlay (Dublin: Irish Academic Press, 2011), 1-22.

⁷⁶ See Steve Pincus and Alice Wolfram, ‘A Proactive State? The Land Bank, Investment and Party Politics in the 1690s’, in *Regulating the British Economy, 1660-1850*, edited by Perry Gauci (Farnham, Surrey: Ashgate, 2011), 41-62; Dennis Rubini, ‘Politics and the Battle for the Banks, 1688-1697’, *English Historical Review*, 85 (1970), 693-714.

⁷⁷ Horsefield (note 15), 197-200.

⁷⁸ Horsefield (note 15), 201-10. Wennerlind (note 76), 120-21, cites a variety of factors in the failure, including attacks by the Bank of England on this rival scheme; the inexperience of the financial directors; and the paucity of silver coin available for investment during the Recoinage. Wennerlind traces the thinking behind the land bank in an English context to innovative proposals by Sir Cheney Culpeper and William Potter, both connected with the Hartlib Circle (73-4).

⁷⁹ John Briscoe, *The following Proposals for, and Accounts of, a National Land Bank, having been Printed at London* (Edinburgh, 1695), 3, quoted in Wennerlind (note 76), 119.

necessity of inventing another Species' of money, based on land.⁸⁰ The argument he advanced was not without philosophical interest. He maintained that the new species must have all of the 'Qualities of Money'. In the case of gold and silver, the metal itself had value and was capable of being put to other uses (such as plate). As a common pledge money needed to have 'real Value' that came from these other uses and purchasing power by virtue of being accepted elsewhere (according to weight in the case of precious metal). Money must also be durable and incorruptible; divisible into larger or small amounts; certified in value by a stamp; and 'readily transferable' such that '*Delivery only makes it a Title*'.⁸¹ Land possessed these qualities, the only real issue being that of transferability, which he proposed to remedy with a land register to avoid legal disputes.⁸² Asgill consolidated his point by noting that philosophers define substances according to qualities, such that 'whatever hath all the qualities of a thing, ceases to be a likeness, and is become that very thing'.⁸³ This did not mean that any entity with the qualities of money somehow became gold and silver, but it could become *money* (just as gold is money and silver is money, but gold is not silver, nor silver gold). Consistent with this point, Asgill spoke thereafter of 'forming' land (or securities based on it) into the qualities of money.⁸⁴

⁸⁰ John Asgill, *Several Assertions Proved, in Order to Create another Species of Money than Gold and Silver* (London, 1696), 5. Hugh Chamberlen, likewise an advocate of creating a land bank, proposed 'to contrive a general Credit, to be so founded upon Land, as to give it the greatest Safety and Convenience, that in its own nature it is Capable of; and to make a Credit, that should not only be a *Succedaneum* to Money, but in divers respects, more noble and useful, and indeed a Superior Species, indued with all the Uses and Excellence of Metaline Money, and in several Regards, exceeding the same'. *The Constitution of the Office of Land-Credit* (London, 1696), 2.

⁸¹ Asgill (note 81), 15.

⁸² John Asgill, *An Essay on a Registry, for Titles of Lands* (London, 1698).

⁸³ Asgill (note 81), 17.

⁸⁴ Asgill (note 81), 22, 25, 44.

Given Locke's reservations about the establishment of the Bank of England (despite becoming an investor),⁸⁵ as well as the criticisms of Locke's position on money by Asgill's partner, Barbon, it is difficult to imagine Locke being persuaded by the case Asgill set out. Yet the openness of mixed modes to reconfiguration by individuals according to their own ideas would have limited his ability to counter the argument that land could be converted into money, at least at a conceptual level. The only outstanding point would seem to be Locke's emphasis on the importance of using language consistently and with reference to some form of agreement. For Asgill, the latter concern was covered by the endorsement of Parliament. Using legal provisions it had already put in place, Parliament's action 'will almost amount to an Unanimous Consent of the Kingdom to receive and use this Invention'.⁸⁶

To defend this position Asgill had recourse, initially, to a natural law argument, adopting the mode that Locke had also employed in the *Second Treatise*: the earth had been given in common to men but it received no improvement since an individual's labour did not accumulate to his own benefit. Enclosure addressed this problem, leading to trade and the use of tokens. Silver and gold in due course 'became the common pledge of the World'.⁸⁷ But money had exceeded its role in merely keeping accounts by acquiring additional value (in part through the introduction of interest payments). Whatever the cause, the pattern of events was now being repeated; just as necessity forced people to 'invent' gold and silver as media of exchange, the dearth of specie in the 1690s made it essential to create a new source of money based on land – in effect a new species.⁸⁸ Asgill's argument is intriguing since it enunciates

⁸⁵ See Bodleian Library, Oxford, MS Locke b. 3.

⁸⁶ Asgill (note 81), 61.

⁸⁷ Asgill (note 81), 7.

⁸⁸ Asgill (note 81), 8.

principles that coincide with Locke's in certain respects while arriving at very different conclusions.

The capacity to establish new species was acknowledged by Asgill as a positive and enabling feature of cooperative economic relations. One of Locke's supporters during the recoinage period, the anonymous author of *A Review of the Universal Remedy for all Diseases Incident to Coin...In a Letter to Mr. Locke* (1696),⁸⁹ also understood the circumstances of crisis as productive of new species but he was far from welcoming the situation. The analysis pursued in the work embarked from a Lockean tenet: the 'Fundamental Axiom', as he called it, 'that *two Ounces of Silver of equal fineness are intrinsically...of equal Value*'.⁹⁰ In other words, the quantity of silver in a coin determined its value, nothing else. Neglect of this 'unalterable Rule', as he elsewhere referred to it,⁹¹ by accepting clipped coins at face value (by tale) rather than weight, was the source of all the difficulties, allowing unequal coins to circulate, which he described as 'A Force upon Nature which could not hold'.⁹² Embedding Locke's principle not merely in reason but within nature itself was a clever rhetorical strategy,⁹³ enhanced by a whole string of metaphors of disease, corruption, and distemper that simplified the situation while giving it moral clarity. The barrier to solving the problem was partly moral and partly linguistic – in a Lockean vein he lamented the fact that the instability of language and people's conceptions meant their discourses were 'mutually eternal Gibberish to one anothers

⁸⁹ Published in London by Locke's printers, Awnsham and John Churchill.

⁹⁰ *Review* (note 38), 5.

⁹¹ *Review* (note 38), 12.

⁹² *Review* (note 38), 12.

⁹³ For some discussion of this issue, see Courtney Weiss Smith, 'A "Foundation in Nature": New Economic Criticism and the Problem of Money in 1690s England', *The Eighteenth Century*, 53:2 (2012): 209-28.

Understanding'.⁹⁴ Be that as it may, there was no escaping (as Locke again had shown) that 'foreigners' registered the true situation, estimating coin only according to the weight and fineness of the metal, not its 'nominal' value. When the price of gold spiked as a result of the depletion of silver in coin, 'Foreigners knew how to take Advantage from it', bringing overvalued guineas or ingots to England to purchase staple goods which they could resell at home cheaper than the English could, courtesy of the premium on coin they realized in the transaction.⁹⁵

Where this account moved beyond Locke was in its attention to the role of credit, and in particular the bills of credit issued by goldsmiths and the Bank of England which represented 'another sort of Money' in addition to 'our several Species of Gold and Silver'.⁹⁶ The value of these notes depended entirely, in the author's view, on being backed by the promise to pay specie on demand in exchange for them. All was well so long as this remained the case, but once 'these General Cashiers of the Nation' began to 'hesitate' in their payments, bills became subject to considerable discount when they remained in circulation:

Paper, in little bits and scraps, had no Value at all but from the Writing that was upon it: And that Writing received its Value only from the Credit of the Person subscribing it [i.e. the signer of the bill]. When that Person, by any miscarriage whatsoever, forfeited his Credit, (as now by demurring upon Payment) the value of the Paper sunk in exact proportion with his Esteem.⁹⁷

⁹⁴ *Review* (note 38), 16.

⁹⁵ *Review* (note 38), 24. As the author recognised, the scenario was just as open to 'cunning Men amongst our selves', the 'Money-mongers' with resources to melt and export coin and reimport gold from the Netherlands (23-4).

⁹⁶ *Review* (note 38), 31.

⁹⁷ *Review* (note 38), 32.

The argument begins to sound much like Locke's sceptical view of credit here.

Despite the innovation going on around him, Locke was convinced that credit had limited potential to increase the money supply.⁹⁸

The author of the *Review* was less interested in 'the minute Degrees of Difference between one Man's Reputation and another's' than the more pressing problem of the Bank of England's notes since they amounted in total to a great sum.⁹⁹

On 6 May 1696, the Bank partially suspended cash payments after a run on it. This crisis was caused by the fact that two days earlier, clipped coins ceased to be accepted by law, with an inevitable tightening of circulation. The Bank had insufficient reminted money to answer the demand.¹⁰⁰ According to the author, the Bank's paper, which once had exceeded coin in value, now dropped below it.¹⁰¹ He concluded that 'It became, in effect, neither more nor less, but perfectly a new Species of Clip'd Money'.¹⁰²

⁹⁸ For a fuller discussion, see Daniel Carey, 'John Locke, Money, and Credit', in *The Empire of Credit: The Financial Revolution in the British Atlantic World, 1688-1815*, edited by Daniel Carey and Christopher J. Finlay (Dublin: Irish Academic Press, 2011), 25-51.

⁹⁹ *Review* (note 38), 32.

¹⁰⁰ See Sir John Clapham, *The Bank of England: A History*, 2 vols (Cambridge: Cambridge University Press, 1944), I, 32, 35-6. According to Horsefield (note 15), 133, the cash reserve was down to £91,000 by 30 June 1696 and fell to £45,000 by 10 November. The author of the *Review* dated his work 31 August 1696. Adam Smith recalled this episode in his critique of paper credit in *An Inquiry into the Nature and Causes of the Wealth of Nations*, 2 vols, general editors R.H. Campbell and A.S. Skinner, textual editor W.B. Todd (Oxford: Clarendon Press, 1976), II.ii.80.

¹⁰¹ The anonymous author of the *Review* does not indicate precisely which kind of notes issued by the Bank of England- he has in mind. The Bank's promissory notes (promising repayment on demand in specie) included running-cash notes and 'specie notes' issued after the start of the recoinage in 1696. The author refers to the Bank's 'Bills and Notes' and to 'Bank bills, (and all other Bills of the like Nature)' (*Review* (note 38), 32, 35. On these different notes, see R.D. Richards, 'The First Fifty Years of the Bank of England (1694-1744)', in *History of the Principal Public Banks*, edited by J.G. van Dillen (The Hague: Martinus Nijhoff, 1934), 220-21, 223-5, 226-7.

¹⁰² *Review* (note 38), 32. The discount on Bank of England notes quickly rose to 16 per cent and reached 24 per cent by February 1697. Nicholas Mayhew, *Sterling: The History of a Currency* (London: Penguin, 1999), 95. The discount on notes did not

While exposing the tendency of new (and damaging) species to emerge in this context, the remedy offered was decidedly Lockean, even as the situation it diagnosed exceeded the terms of Locke's analysis. The author followed Locke's suggestion in respect of clipped coin that it should be weighed in scales to determine its value, making it, in that sense, all equal. But paper credit was not subject to the same solution. The only remedy in this state of affairs was 'the Reduction of it to its first Standard'.¹⁰³ That standard was nothing short of the promise to pay on demand. This alone converted paper into money and this alone would reform the system. The Bank had its rules with subscribers, allowing for the recall of 40 per cent of the latter's debt in specie. Necessity demanded that this course of action be taken, no matter how loud the complaint or resistance.¹⁰⁴

The anonymous author shared with Locke an impulse to safeguard a public standard, to simplify according to a rule, and contain an economic crisis within the terms of a single axiom. In the case of credit the capacity for doing so was clearly in danger of breaking down. Nowhere is this more obvious than in the rather optimistic assessment that if the bank failed to make interest payments to subscribers, it could still achieve something significant by keeping to its promise to pay off the principal at

disappear until the Autumn of 1697 (Horsefield (note 15), 134). In a rejoinder to the *Review*, an anonymous author defended the Bank's 'delay' in payment and pointed out that those who obtained bills did so originally by paying in either lightweight silver coin or overvalued gold, which made their insistence on repayment in full-weight money problematic. [P.H.], *The Bank of England, and their Present Method of Paying, defended from the Aspersions Cast on them in a late Book, Entitled, A Review of the Universal Remedy for all of Diseases incident to Coin...In a Letter to Mr. Locke* (London, 1697), 7-8. For his part, Asgill had opposed the move to make bills of credit current by act of Parliament, regarding the proposal as illegal, impractical, and as a 'Cheat'; as a result they had no role to play in the creation of 'another Species of Money than Gold and Silver' (note 81, 13).

¹⁰³ *Review* (note 38), 53.

¹⁰⁴ *Review* (note 38), 33-4, 56-7. The author refers to the fact although the whole of the £1,200,000 subscription for the bank had been taken up in 1694, only 60% of the funds had been called in. For a contemporary defense of this arrangement, see Michael Godfrey, *A Short Account of the Bank of England* (London, 1695), 6.

appointed times. This, he argued, would ‘occasion a certain fixt Difference of Estimation to be settled, between their Bills and running Cash; Not fluctuating as it is now, up and down, in uncomputable Uncertainties’.¹⁰⁵ This difference would be nothing more than the *agio*, a relatively stable percentage payable for the convenience of converting paper into cash.

6. Conclusion

At this point we can reapproach Locke’s position on species in nature and in the domain of mixed modes. In relation to mixed modes, Locke drew attention to the fact that in their case ‘the real Essence of each Species’ was knowable, ‘they being not of Nature’s, but Man’s making’, as we have seen. While they did not always possess ‘standing Patterns’, they could be ‘perfectly and exactly *defined*’ (III.xi.15) – hence Locke’s definitional approach to the mixed mode of money. Determining whether money counts as one of the mixed modes where there *is* a standing pattern remains the question.

Locke tells an instructive story at one stage in the *Essay* (Book III, chapter 6) in order to explain the distinction between the ‘adequacy’ of ideas of mixed modes and the dilemma posed by our ideas of substances. He does so by thinking about the position of Adam. When Adam devised notions of the mixed modes of jealousy and adultery the ideas that he created, voluntarily, corresponded not to any pre-existing archetype but to his own conception and ‘could not but be perfect, could not but be adequate’ (III.vi.44). In that sense, ‘the Standard there was of his own making’ (III.vi.46). The situation of his children, *vis à vis* these terms, was less free since they

¹⁰⁵ *Review* (note 38), 59.

encountered words already in use. If they wanted to employ them in the established manner ‘as Names of Species’ they had to conform their ideas to ideas in the minds of others as ‘their Patterns and *Archetypes*’ (III.vi.45). The potential for distortion of meaning entered at this stage, the remedy for which was to ask for definitions. The predicament with respect to gold, as a physical substance, was different. In this case, Adam’s abstracting of an idea would occur in reference to qualities he observed, such as hardness, the bright yellow colour, and weightiness of it. As Locke observes, ‘here he has a Standard made by Nature’ and the complex idea he forms derives from the ‘Perception’ he has of ‘the thing it self’ (III.vi.46). The name Adam gives it marks off a species. As Adam conducts further trials and discovers that the substance is ductile and fusible, among other things, he adds these properties to the complex idea and so to the species itself. But the idea remains inadequate, so to speak, because trials continue (by Adam and others), inevitably supplementing the range of properties and qualities included in the complex idea. The essence attached to gold here is a nominal one, but a real essence is supposed ‘from which these Properties all flow’ (III.vi.49). Although in speaking of species we imagine them as existing in nature and as distinguished by real essences, Locke’s problem is that if we attribute properties to the real essence of a substance then we have to know the real essence first to make such a judgement (III.vi.50).¹⁰⁶ This we are not in a position to do.

There are several conclusions to draw from this discussion. Like other mixed modes, the idea of money presents us with options in defining the species. Where terms are already in use, Locke declares that ‘the significations of Words are very warily and sparingly to be alter’d’ (III.vi.51). He aptly notes, for our purposes, that ‘He that hath new Notions, will, perhaps venture sometimes on the coining new

¹⁰⁶ See also a parallel comment in *Essay*, IV.vi.5.

Terms to express them: But men think it a Boldness, and 'tis uncertain, whether common Use will ever make them pass for currant' (III.vi.51). In short, Locke operates with two criteria in the context of money – existing usage and perspicuous definition. He supplies the latter with his adherence to 'intrinsic value' as the definition of money, by which he means the weight of the coin in silver. Silver brings stability to the equation, but of course Lowndes's proposal was not to eliminate silver but to revalue it. Thus Locke is really insisting that the meaning of money must remain the existing definition of its value at the Mint, i.e. 5s. 2d. per ounce. The status of money as a mixed mode might have allowed others to tamper with the definition, but Locke's rigour was an attempt to inhibit their doing so. In other words, he was making an essentially moral argument.

Silver by weight acted as a kind of external constraint on definitions that would otherwise be ungoverned. The convention of calling this the 'intrinsic' value of money does not alter the fact that what was significant about it is its independence from manipulation, and the way it connected value to something substantial, objective, and in that sense 'external' or intersubjective. This makes the response of one of Locke's more acute critics, the Scottish commentator James Hodges, all the more interesting. He described as a 'Fallacy' Locke's view of intrinsic value. Locke proceeded, he remarked,

as if there were a real intrinsick Value united with, and fixed in the Substance, Body, and Bulk or Quantity of Silver, and so equally distributed through, and in all the Parts of its Substance, as that every Part of its Quantity can have no Value more or less, than what another Part of the same Quantity hath.¹⁰⁷

¹⁰⁷ James Hodges, *The Present State of England, as to Coin and Publick Charges* (London, 1697), 135.

For Hodges, value only came from the estimate placed on money by common consent, which was far from invariable. Indeed, the routine acceptance of lightweight coin demonstrated the opposite conclusion to Locke's was true,¹⁰⁸ namely that inconsistent weights of silver could readily be made equivalent. 'Raising' the coin was thus far from difficult to defend.

On his own analysis of mixed modes, Locke could have arrived at a different assessment. He could have seen devaluation as merely a new definition of money, agreed, as Hodges suggested, by common consent. What Locke searched for, evidently, was a secure criterion of meaning that was external and invariable – in short he wanted to find a way to constrain the freedom associated with mixed modes. We cannot, of course, conclude directly from this that Locke was similarly committed to the idea that real essences in nature constrain our species terminology, but there is at least a pattern worth observing in which a radical nominalism held no appeal for him. In nature, the standard might come from observable properties rather than discernable 'real essences' but he sought a more regulated system, determined at the very least by intersubjective criteria.

¹⁰⁸ Hodges (note 108), 175-6, 195.