

Norman Schofield

The intellectual contribution of Condorcet to the founding of the US Republic 1785–1800

© Springer-Verlag 2005

Abstract Condorcet has often been thought of as a dreamer, and a mathematician without much influence on social thought. I shall argue here that Condorcet’s “Jury Theorem” had an influence on Madison, in the crucial Federal decision of 1787. There are two possible avenues of influence—one through Franklin, who was a close friend of Condorcet in Paris in 1776–1785, and one through Jefferson, who also knew Condorcet well, and sent Madison transcriptions of Condorcet’s work. Urken and McLean came to the conclusion that Madison was unimpressed by Condorcet’s work. (But they looked for the wrong kind of influence). Indeed, Condorcet’s influence may have been more pronounced on Jefferson, who based his views on debt, *usufruct* and economic growth on Condorcet’s optimism as expressed in the *Esquisse*. Oddly enough, historians have focused on the influence of Hume on Madison. In fact, Hume and Condorcet were in search of a similar calculus—decision-making under risk.

1 Introduction

It may be concluded that a pure democracy, by which I mean a society, consisting of a small number of citizens, who assemble and administer the government in person, can admit of no cure for the mischiefs of faction...Hence it is that democracies have been spectacles of turbulence and contention; have

Presented at the Conference on the History of Social Choice, University of Caen, October, 2002. I am grateful to Claude-Anne Lopez, Kate Ohno and Nicolas Rieucan for helpful remarks on biographical details for Franklin, Jefferson and Condorcet. I thank Alexandra Shankster for typing the manuscript. I would also like to express my appreciation for support from Washington University and from the Fulbright Foundation for the opportunity provided by my tenure of the Fulbright Distinguished Chair at Humboldt University, Berlin in 2002–2003.

N. Schofield (✉)
Center in Political Economy, Washington University, 1 Brookings Drive,
Saint Louis, MO 63130, USA
E-mail: schofield@wustl.edu

ever been found incompatible with personal security...and have in general been as short in their lives as they have been violent in their deaths.

A republic, by which I mean a government in which the scheme of representation takes place, opens a different prospect...

If the proportion of fit characters be not less in the large than in the small republic, the former will present a greater option, and consequently a greater probability of a fit choice [53].

These words, written by James Madison and published in November 1787 in *Federalist*, as number 10, are still relevant today. Social choice theory has, of course, concentrated on the first part of Madison's remarks—looking at the relationship between direct electoral preferences and the rationality of collective outcomes. Since Arrow's classic theorem [6], there is reason to suspect that democracy can be chaotic [43, 55]. Here, however, I shall focus more on Madison's remarks about representation.

Modern theories of representation accept that voters are uncertain about the fitness of their choice of candidate [19, 23]. However, these probabilistic theories of voter choice seem to indicate precisely the opposite of the chaos of social choice. In fact, they predict that there will be no competition at all, and all candidates will be identical, in professing "average" values—the so-called *mean voter theorem* [61].

Condorcet is famous for his incoherence theorem about preference cycles. However, his other claim to fame is the "Jury Theorem" [14]. In the Jury Theorem, voters are also uncertain about the truth of the matter. However, under the assumption that the "typical" voter has a better than even chance of choosing the "correct" outcome, Condorcet proved that the electorate would, using the majority rule, do better than an average voter. Moreover, he showed that as the electorate increased in size, the possibility of choosing the truth would approach certainty.

Clearly, there is some conceptual parallel between Condorcet's convergence theorem, and Madison's argument about "probability of a fit choice." For Madison, the heterogeneous republic meant diversity of interests. His intuition was that, as the Republic increased in size and diversity, then the "probability of a fit choice" would also increase.

I shall argue that Madison did not have in mind something like the mean voter theorem. In fact, he came to believe in the necessity of factional rivalry. In the period preceding the revolutionary election of 1800, the society was indeed divided between Jeffersonian Republicans and Whiggish Federalists. The issue that divided them was one of great importance: was the Republic to become a commercial empire along the lines of Britain (as Hamilton believed it should), or was it to become an agrarian empire (as Jefferson wished)?

In the election, the major protagonists were anything but identical. Indeed, I shall argue that this divisiveness has been a feature of U.S. politics ever since.

What I intend to do is, firstly, chart the influence of Condorcet on Madison's writings in the *Federalist*. I shall also discuss Hamilton's understandings of political economy (based as it was on British experiences in the previous century). Then I shall comment on why Hamilton and Madison, initially both Federalists, came to disagree so vigorously.

In this discussion, I shall attempt to show that Condorcet also influenced Jefferson, while Jefferson was Minister Plenipotentiary in Paris. This influence derived from Condorcet's optimism about the future of the human race, and from his belief that science would prove able to overcome the constraints of food

production. Of course, Malthus [35], in 1798, wrote in opposition to Condorcet's *Esquisse* of 1794 [15]. Later in life, Jefferson supported an essayist, Destutt de Tracy, when he argued against the Malthusian doctrine. Condorcet's optimism had a significant impact on Jefferson and, indirectly, on the future development of the U.S.

In examining Condorcet's influence on Madison, I shall conjecture that this came initially through Benjamin Franklin. Franklin, during his 10 years in residence in Paris, from late 1776 until 1785, became close friends with Condorcet [7, 11, 30, 31]. I suggest that Franklin got to know of his friend's research, and once back in the U.S., discussed his interpretation of the work with Madison in 1787.

While involved in the discussions of the constitutional convention in Philadelphia, Madison wrote an essay on the *Vices of the Political System of the U.S.* (April 1787). There, he first tried out the argument on the extended republic, but without using the phrase, "probability of a fit choice." In the summer of 1787, he received documents from Jefferson in Paris, including work by Condorcet. McLean and Urken [46] argue that it is unlikely that Madison ever read Condorcet's essay. In fact, it is clear that the essay was read by Madison, because he disputed the relevance of Condorcet's Jury Theorem to the question of unicameralism. Shortly after this, Madison adopted the phrase "the probability of a fit choice," for *Federalist 10* (in November 1787).

I suggest that U.S. presidential elections, from the immediate post Revolutionary War period until the present, have always involved a judgment by the electorate about the fitness of the candidate. As Madison articulated in *Federalist 10*, interest and factions will be intimately involved. However, just as Condorcet argued, and Madison understood, electoral choice is essentially one of judgment, of making inferences about the validity of beliefs. It is this feature of elections of representatives that makes them quite different from systems of voting *within* a legislature. Within a legislative body, voting is over an alternative, not a person. Consequently, the possibility of incoherence in a voting body, which Condorcet stumbled across, and which Madison foresaw, should always be kept in mind. In contrast, "the probability of a fit choice" for presidential elections in the extended republic may be the crucial characteristic of the US polity that generally endows it with dynamic stability [47].

2 Franklin, Condorcet and Madison

The intellectual influence of the English and Scottish constitutional theorists on the Founders, and particularly on Madison and Jefferson, has long been studied. Adair [1–3], for example, in his argument against Beard [9], relied on Hume's assertion that there was no conflict in principle, between the "landed and trading parts of the nation." In accepting Hume's logic, Adair asserted that Hamilton's belief about the disequilibrium between democracy and aristocracy was also invalid. However, Hume also contended that the election of the chief magistrate would necessarily be attended by tumult. As Hume says in his *Essays Moral, Political, and Literary*,

The filling of the [position of elective magistrate] is a point of too great and too general interest, not to divide the whole people into factions. Whence a civil war, the greatest of ills, may be apprehended almost with certainty, upon every vacancy [25, p. 18].

A similar theme is apparent in the work of Bolingbroke, and even in Gibbon's *History of the Decline and Fall of the Roman Empire* [22]; see also [71]. In a later essay, in the same collection as the above, Hume refers to

the common opinion that no large state, such as FRANCE or GREAT BRITAIN could ever be modelled into a commonwealth, but that such a form of government can only take place in a city or small territory [25, p. 527].

Hume attempts his refutation of this small republic argument of Montesquieu by proposing that in

a large government, which is modelled with masterly skill, there is compass and room enough to refine the democracy, from the lower people...to the higher magistrates...the parts are so distant that it is very difficult...to hurry them into any measures against the public interest [25, p. 528].

Adair is clearly correct to see in Hume's argument the essence of Madison's extended republic thesis. I concur with Adair that Hume's logic was absorbed into Madison's essay on the "Vices of the Political System of the United States," written in April 1787 [53, p. 69–80]. However, there are subtle differences between Madison's essay of April 1787, and the clearer thesis of *Federalist 10* of November 22, 1787.

I contend that Madison's later logic suggests the influence of the work of the Marquis de Condorcet (1743–1794). Indeed, I shall argue further that Condorcet's works in constitutional theory, fiscal theory, trade theory and economic growth were utilized by Madison and Jefferson to provide a coherent logic to what I shall call the Madison–Jefferson vision.

As is well known, Jefferson arrived in Paris as Minister Plenipotentiary in August 1784, to take over from Franklin. As Jefferson's biographer, Randall, notes, Condorcet, Chastellux and Lafayette joined Jefferson's intimate circle of friends [54, p. 431]. Condorcet was the secretary of the Academy of Science, and knew Franklin in that context. His work on social choice theory (surveyed in [45]) is still relevant today. Condorcet's fame, in social choice theory, rests on his *Essai sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix* [14].¹ He is more widely known for his *Esquisse d'un tableau historique des progrès de l'esprit humain* [15]. This latter stimulated Malthus to write his famous essay [35].

Condorcet's "jury theorem" proposed that each voter, i , say, could be characterized by some probability, p_i , say, of voting for the truth. The theorem showed that in a binary choice (yea or nay), majority rule maximized the probability P , say, that the jury (or committee) selected the truth. Moreover, as the jury size increased without bound, then this probability P approached 1. When Condorcet attempted to extend this result to one with multiple choices, he found an incoherence theorem, similar in kind to what I have termed chaos. Condorcet's results were presented in the French Academy of Science in 1785, and given Franklin's interest in the topic, it is clear that Franklin would have understood them.

¹ Condorcet's work in his *Essai* can be seen as an extension of Hume's idea of "probable belief", set out in Hume's *Treatise* [24]. Indeed, Condorcet's biographer, Baker [8, p. 13], notes the line of thought from Hume through Condorcet to what we might today call "Bayesian Social Choice Theory."

Franklin and Condorcet were dinner companions at the Salon of Madame Helvetius, and there they discussed matters of political economy with Turgot, previously Finance Minister to Louis XVI. Brands [11] mentions that Diderot, d’Alembert, and even Hume, came to call. Claude Anne Lopez [30, 31] has described how Franklin entered into the intellectual life of Paris in the 1780’s. This has obviously been clearly recognized by historians [13], but what has seemingly not been recognized is that Condorcet’s work on Social Mathematics *must* have been discussed. Franklin may not have been a mathematician, but he was certainly a scientist, and, in any case, would understand the significance of the result.

When Franklin returned to the U.S. in 1785, he created a Society for Political Inquiry in Philadelphia, which Washington certainly attended. Madison visited Philadelphia in early 1787, and presumably discussed the issue of the constitution with Franklin.

It has been suggested by McGrath [42] that Madison was aware of Condorcet’s “incoherence” theorem and had it in mind when arguing for the separation of powers implicit in *Federalist 51*. The analysis by Urken [67] and McLean and Urken [46] suggests otherwise. Their argument turns on Madison’s rejection of unicameralism.

It is known that Madison did receive a sketch of Condorcet’s work, included in a book by the Italian, Philip Mazzei, entitled *Recherches Historiques sur les Etats-Unis* [37: see 45, p. 63]. Madison mentions this in a letter to Jefferson, dated September 6, 1787 [65, p. 492]. In his contribution, Condorcet asserts that it can be proven rigorously “that increasing the number of legislative bodies could never increase the probability of obtaining true decisions” [45, p. 325]. Obviously, this can be taken as an argument for unicameralism. Since Madison seemingly rejected this principle, in *Federalist 51*, that would seem to be the end of it.

Although Condorcet believed his jury theorem applied to legislative decision-making, it is not evident that it does. As Madison’s remarks in *Federalist 62* on “mutability” imply, a legislative body makes *laws*, and these may be incoherent. In contrast, when an electorate chooses a representative, or a chief magistrate, it picks a person. A person may not be “true” in Condorcet’s sense, but may be “pre-eminent for ability and virtue,” to use Hamilton’s phrase (in *Federalist 68*, [21, p. 414]).

Thus, if we interpret Madison’s term “a fit choice” to mean a virtuous representative or chief magistrate, then there is a clear similarity between the extended republic argument of *Federalist 10*, and Condorcet’s Jury Theorem [56, 58]. As in Condorcet’s result, the larger, or more heterogeneous and populous, the republic, the greater will be “the probability of a fit choice” [53, p. 165]. As I noted above, Madison’s term “the probability of a fit choice” does not appear in the essay on *Vices* in April 1787, but does occur in the *Federalist 10* essay of November. Notice that this Condorcet’s logic only applies formally to binary choice, as in situations where there are two candidates, Federalist or Republican, say. Moreover, Condorcet’s theorem, and its apparent application by Madison in *Federalist 10*, is only valid when the electorate is knowledgeable. I suggest that this fundamental proposition is important in understanding the actions of Madison and Jefferson in the constitutional disagreement with the Federalists in the 1790s.

Before Jefferson left France in October 1789, he had witnessed the opening ceremony of the Estates General in Versailles in May, and collaborated with Lafayette and Condorcet on a draft of what was eventually to be the *Declaration of the Rights of Man and the Citizen* in August, 1789 [45, p. 55]. Implicit in

Jefferson's thought at this time was, what Randall calls, the "explosive doctrine of perpetual revolution" [54, p. 486]. In Jefferson's letter to Madison of September 6, 1789, he asks the question "Whether one generation of men has a right to bind another", and answers "no man can by *natural right* oblige the lands he occupied... or the persons who succeed him, to the payment [sic] of debts contracted by him." Thus, "*the earth belongs in usufruct to the living*" [50, p. 959].²

As Sloan (1995, 242) [63] observes, on the same day, Condorcet's letter to Comte de Montmorency computes, mathematically, the length of time of a generation, to be about 20 years (in fact, this term is the "half-life"—the time it takes for half the population to be replaced). Jefferson, using an identical calculation, estimates the half-life at 18 years, 8 months. Then, Jefferson makes the following point: the French debt of "ten thousand milliard of livres" had impoverished the nation. Limiting debt to whatever can be paid within this half-life of the population would have avoided this unjust imposition on later generations.

This parallel between the calculations of Condorcet and Jefferson merely reflects their mutual engagement and friendship. Sloan [63] records that Condorcet was present at a farewell dinner for Jefferson on 17 September 1789. There are deeper connections. Debt was the prime concern of Anne-Robert Turgot, chosen by Louis XVI as controller general of finances in 1774, to reorganize France's debt. Turgot's refusal to agree to Vergennes's scheme to aid the American colonies in 1776 had led to his dismissal. Indeed, the increase of debt as a result of this decision forced Louis XVI to call the estates general in 1789. Condorcet was Turgot's protégé and wrote Turgot's biography in 1787, as well as editing his work.

Appleby [5] also indicates that Jefferson accepted the arguments of Turgot and Condorcet on the utility of free trade. Moreover, "Jefferson was an early advocate of the commercial exploitation of American agriculture." In a letter to Jefferson on June 19, 1786, Madison assumed that the agricultural surplus of the new lands would increase without bound, and that the "equal partition of property must result in a greater simplicity of manners, consequently, a less consumption of manufactured superfluities, and a less proportion of idle proprietors and domestics" [65, p. 422].

McCoy has further argued that Jefferson kept to his "vision of a predominantly agricultural America that would continue to export its bountiful surpluses of food abroad" [38, p. 268]. Indeed, Jefferson later consistently rejected the Malthusian thesis [36] that population would outstrip food production. In 1818, he arranged the translation of an essay, *Treatise of Political Economy*, by Destutt de Tracy to this effect³ [36 p. 352, 38]. Jefferson's belief in this regard parallels Condorcet's

² Mayer [36] discusses the further correspondence between Madison and Jefferson in 1790 over the issue of debt, and the possibility of constitutional change.

³ Baker [8, p. 393] observes that Jefferson seemed to approve of Destutt de Tracy's idea of social science, the notion that society can be understood in scientific terms. There is another intriguing indirect connection between Jefferson, Destutt and Condorcet. *A Commentaire* [18] by Destutt de Tracy on Montesquieu's *L'Esprit des lois* was published in Paris in 1798, and contained an essay by Condorcet on the twenty-ninth book of *L'Esprit* (written in 1780). The essay seems to deny the relevance of Montesquieu's notions. Mayer [36, p. 136] points out that Jefferson himself (after retiring from the presidency) translated Destutt's *Commentaire* and arranged for its publication. This strongly suggests that Jefferson in the mid 1780's had accepted Condorcet's critique of Montesquieu's argument. The complex intellectual connections between the Scottish Enlightenment thinkers (Smith and Hume), Condorcet, Destutt and their colleagues in France, and Jefferson and Madison, have not been explored in any great depth.

opinion, as set out in the *Esquisse d'un tableau historique des progrès de l'esprit humain* [15]. The *Esquisse* was written while Condorcet was in hiding in 1794 from the Jacobins, and only published after his death by the efforts of his wife Sophie de Grouchy. Clearly, Condorcet's beliefs about the development of the human spirit could not have been read by Jefferson in the early 1790s; however, there is clear evidence that the optimism that Jefferson and Madison expressed in the late 1790s did owe a considerable debt to Condorcet.⁴

3 Walpole, Bolingbroke and Montesquieu

The discord in the 1790s between Hamilton and Madison (with Jefferson increasingly involved) arose out of two issues. Firstly, Hamilton seemingly believed that democracy was indeed chaotic, and could only be rendered stable by autocratic rule or by veto.

Indeed, in writing his *Federalist* essays, Madison did express fear of mutability. What we may call chaos, Madison called turbulence, or “mutability”—the incoherence of the law. In *Federalist* 62, Madison discussed the “mischievous effects of mutable government:”

It will be of little avail to the people that the laws are made by men of their own choice, if laws be so...incoherent that they cannot be understood; if they be repealed or revised before they are promulgated, or undergo such incessant changes that no man who knows what the law is today can guess what it will be tomorrow [53, p. 343].

These remarks on chaos are quite different in tone from the interpretations made by political theorists of the present day [17, 70] who seem to believe democracy is stable. The constitutional theorists of the eighteenth century were well aware that democracy was potentially unstable, and that autocracy could induce stability, but at the cost of tyranny. However, tyrants wish to extend their power, and are likely to engage in war. Indeed, the Declaration of Independence, penned by Thomas Jefferson, accused George III of precisely such risk-taking, tyrannical behavior. A common understanding of British political history is that autocracy did indeed lead to risk-taking and war. It was well known that Oliver Cromwell had, in large degree, taken on dictatorial powers precisely in order to prosecute war against France, and in Ireland. As Madison put it, in his “Vices of the Political System of the United States,” while a great desideratum of the prince is a sufficient neutrality between the different interests and factions,

In absolute Monarchies, the prince is sufficiently, neutral towards his subjects, but frequently sacrifices their happiness to his ambition [53, p. 79].

Weaker veto power can also induce stability, as in oligarchy or collegium. If we identify collegium with aristocracy, then as Adair observed, there will be an “inveterate and incorrigible” tendency to use the apparatus of government to serve

⁴ As Mayer notes, Jefferson wrote in a letter in 1799, that like Condorcet, he believed that the mind of man was “perfectible to a degree of which we cannot as yet form any conception” [36, p. 306].

the special interests of the aristocratic few [2, p. 173]. If the rule in the “aristocratic” Senate permits many veto groups, then the outcome may be the opposite of risk preferring autocracy or monarchy. With many such groups, it will be impossible to make decisions. Such a situation may be termed “risk avoiding.”

Figure 1 attempts to represent some social choice theoretic ideas in terms of two axes. The vertical axis represents the effect of the degree of concentration of power on stability. With no concentration comes chaos, to the north of this axis [6, 44, 56]. On the right of the risk axis is autocracy (or dictatorship), which may avoid chaos, but at the cost of risk taking decisions. On the left of the risk axis is the situation with multiple veto groups, creating stability at the cost of indecision, or risk avoidance. In between, is the existence of collegium, or oligarchy. (This figure is adapted from a similar figure in [59], which also elaborates on the stability and risk axes. See [57])

Figure 1 has an interpretation in terms of Montesquieu’s constitutional theory of balance between democracy, aristocracy and monarchy [2]. It was evident in 1787 that Madison and Hamilton differed in how the balance was to be obtained. To judge from Hamilton’s essays in the *Federalist*, he clearly had in mind the creation of a commercial empire. As he wrote in *Federalist 11*,

The superiority [Europe] has long maintained, has tempted her to plume herself as the Mistress of the World...It belongs to us...to teach that assuming

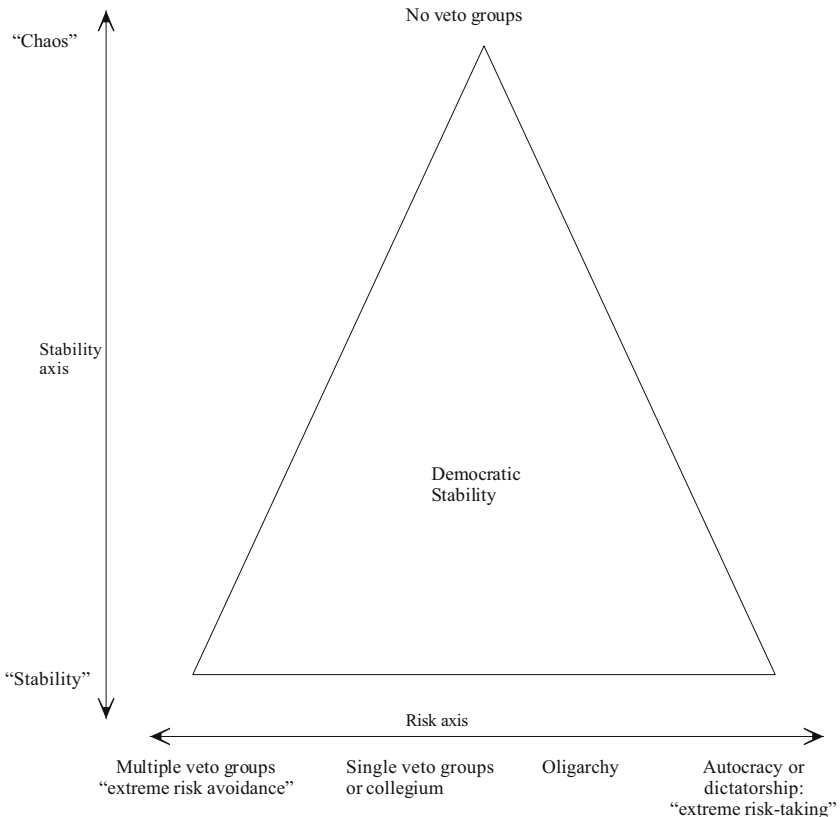


Fig. 1 Chaos or autocracy in a polity

brother moderation....Let the thirteen States, bound together in a strict and indissoluble union, concur in erecting one great American system, superior to the control [sic] of all trans-atlantic force...and able to dictate the terms of the connection between the old and the new world! [21, p. 208].

As Adair observed, the constitutional theory of Montesquieu suggested that only monarchy possessed the necessary *energy, secrecy, and dispatch* to order an empire.

While the Federal Convention would not, of course, accept a monarchy, Hamilton pressed for almost autocratic power for the executive: first, on June 4, 1787, for an absolute veto and second, on June 18, for appointment for life.

On June 4, Madison had responded that “to give such a prerogative would certainly be obnoxious to the temper of the Country; its present temper at least” [32, p. 24]. Later, in developing his balance theory in *Federalist 51*, Madison noted that

An absolute negative, on the legislative appears at first view to be the natural defence with which the executive magistrate should be armed. But perhaps it would be neither altogether safe, nor alone sufficient.

Although Madison and Hamilton seem from their written and spoken remarks to agree on the political logic inherent in Fig. 1, they disagreed about how to create the constitutional apparatus of the Republic so as to avoid the costs both of democratic chaos and of risk accepting autocracy. I shall argue that Britain’s experience in the 18th century was relevant to this disagreement and gave rise to the second issue over which Madison and Hamilton disagreed.

In the period after the South Sea Bubble in 1720, Robert Walpole became “first prime minister,” in fact if not in name [69]. Government debt had been the reason why the South Sea Company had been formed. In the bubble and crash, many lost fortunes. By a swap arrangement with the Bank of England, Walpole was able to secure the company stock.

To sustain, and even reduce government debt, Walpole instituted a system of wide-ranging tariffs and customs [49]. By 1739, debt had fallen to 46 million sterling, with interest of only 2 million. Brewer [12], North and Weingast [48] and Stasavage [66] have all written about the various institutional transformations that enabled Britain, with a much smaller economy than France, to contest and eventually defeat her rival.

I contend the reason for Britain’s success was that Walpole’s device to cover interest through customs was an institutional equilibrium that benefited land and capital, over labor. Because Britain’s imports were mostly foodstuffs, her customs duties maintained the price of land [4, 62]. Because labor was not enfranchised, this Walpole “equilibrium” ushered in a century of Whig dominance [51]. During this long period until after the Napoleonic Wars, the Whigs catered to land and capital, while real wages declined in many sectors [16, 29], causing “immiseration” of labor [52]. Indeed, the land capital coalition was preserved behind high protective tariffs until the repeal of the Corn Laws in 1846 [44, p. 33–56].

Walpole’s principal constitutional opponent in the creation of this fiscal equilibrium was Henry St. John, Viscount Bolingbroke. In exile in France, he wrote against the perversion of the English constitution by the corruption attending the

Whig dominance, against the “placemen” and “stockjobbers” who maintained this equilibrium [28].

Thomas Jefferson was much persuaded by Bolingbroke’s rhetoric. In a letter to Francis Eppes (January 19, 1821), Jefferson wrote of Bolingbroke’s style as being “lofty, rhythmical...,” with the “eloquence of Cicero” and “conceptions...bold and strong” [50, p. 1451]. As a consequence, perhaps, historians have explored the relationship between Bolingbroke’s constitutional conceptions and the ideas of the Republicans in the U.S. in the 1790s [27, 28].

If my inferences about the nature of Walpole Equilibrium in the eighteenth century are correct, then Bolingbroke’s arguments missed the fiscal consequences of the Whig capital-land coalition in Britain. However, Britain and the United States differed completely in their economic structure in 1790. I shall argue that Hamilton’s efforts to implement a version of the Walpole Equilibrium in the United States in 1790–1800 necessarily brought the opposing interests of land and capital into conflict. In the following section I shall attempt to indicate how the social choice and political economy theories just presented give us some insight into this conflict.

4 Jefferson and Hamilton

The conflict between Federalists and Republicans in the 1790s has been described many times (e.g. [68]), so I shall comment only on those features that seem to reflect the coherent political economic philosophies of Madison and Jefferson, on the one hand, and Hamilton on the other.

Madison was defeated in Virginia’s Senate election in November, 1788, but elected to the House of Representatives in February 1789. Almost immediately, he moved

that Congress establish a revenue system to enable the nation to pay its debts... He proposed high import duties on....luxuries (rum, liquors, wine, molasses, tea, sugar, spices, coffee and cocoa)...Madison asserted that though he was a “friend to a very free system of commerce...and regarded “commercial shackles as unjust, oppressive, and impolitic,” nevertheless, tariffs were in some cases justifiable: to protect, temporarily, new industries..., to discourage luxury spending...and to retaliate against unfair commercial regulations by other countries [26, p. 280].

Madison also argued for discrimination against Britain, to use America’s importation of manufactures and export of food as a device to open further trade with Europe so as to oppose Britain’s dominance. Madison would return to this theme later, particularly in a number of long speeches in January and February 1794 [34, p. 167, p. 180, p. 182, p. 205, p. 206, p. 247]. It is pertinent to the agrarian thesis that, on 9 April, 1789, Madison argued in Congress for the encouragement of

the great staple of the United States; I mean agriculture, which may justly be stiled [sic] the staple of the United States...If we compare the cheapness of our land with that of other nations, we see so decided an advantage in that

cheapness, as to have full confidence of being unrivaled; with respect to the object of manufacture, other countries may and do rival us; but we may be said to have a monopoly in agriculture...If my general principle is a good one... commerce ought to be free, and labour and industry left at large to find its object [33, p. 73].

This speech, together with Madison's earlier letters to Jefferson, make it clear that by 1789, Madison had a well-articulated theory based on free trade and agrarian expansion for the US. While there was mutual advantage for Britain and the US to exploit their comparative advantages, nonetheless, the US had to defend itself against commercial exploitation by Britain.

On January 9, 1790, Hamilton, as Secretary of the Treasury, brought out his *Report on Public Credit* [21, p. 531–574; 41]. Madison, in Congress, argued against the assumption of debts that had been pressed by Hamilton. The defeat of the proposal by a logroll in Congress may have reinforced Hamilton's belief in the inherent incoherence of the Legislature.

The *Report on Credit* was followed by further long reports on a *National Bank* (February 23, 1791), and on *The subject of manufactures* (December 5, 1791).

Madison tried to halt the National Bank by asking "Is the power [to establish] an incorporated bank among the powers vested by the constitution in the legislature of the United States?" [53, p. 481]. The bank scheme went ahead. "When subscriptions were opened on July 4, 1791, they were filled within one hour" [20, p. 242].

These three Reports were indicative of Hamilton's earnest wish to put in place an American analogue of Walpole's British Equilibrium. However, since the U.S. exported land-intensive goods, the only logically feasible path to creating a commercial economy was to sustain manufactures either by tariff or by direct government assistance. It is interesting that Hamilton deals immediately with what I have intimated was an underlying component of the Madison–Jefferson vision—that the future of the US economy lay principally in the cultivation of the land. Indeed, in the *Report on Manufactures*, Hamilton takes up the argument of Adam Smith [64]:

the labour of Artificers being capable of greater subdivision and simplicity of operation than that of Cultivators, it is susceptible, in a proportionably [sic] greater degree, of improvement in its *productive* powers, whether to be derived from an accession of Skill, or from the application of ingenious machinery...That with regard to an augmentation of the quantity of useful labour, must depend essentially upon an increase of capital [21, p. 651].

Hamilton's argument clearly sets out his view of the necessary evolution of the U.S. economy: By the creation of a National bank to generate capital, by protection of industry and by tariff to cover government debt, the U.S. would grow rapidly.

On September 9, 1792, Jefferson wrote to George Washington

That I have utterly disapproved of the system of the Secretary of Treasury, I acknowledge [sic] and avow: and this is not merely a speculative difference. This system flowed from principles averse to liberty [and] was calculated to undermine and demolish the republic, by creating an influence of his department over the members of the legislature [50, p. 994].

By denying that his rejection was speculative, Jefferson meant that he had good reasons (both empirical and theoretical) to believe that the Hamiltonian system would induce corruption and undermine liberty. From Jefferson's own reading of Bolingbroke, he believed that the creation of a capitalist system in the US would make it possible for a Hamilton, in the guise of Walpole, to bribe and maneuver among the factions of the legislature, to act as autocrat.

Aside from the allegations of corruption, I contend that Madison and Jefferson believed that Hamilton's commercial empire in the US would generate precisely the same phenomenon of labor immiseration as in Britain. Were agriculture to be diminished, then agrarian labor would experience a diminution of real income. Indeed, ascendant capital would eventually control land, as in Britain, in the form of great estates.⁵ This would necessarily require the further disenfranchisement of labor. Beard [10] in his analysis of Jeffersonian America quotes from the *Treatise* of John Taylor, of Caroline County (published in 1814).

The policy of protecting duties to force manufacturing...will produce the same consequences as that of enriching...a paper interest...and the wealth of the majority will continually be diminished [10, p. 341].

In other words, because the U.S., unlike Britain, exported land-intensive goods and imported capital-intensive ones, any system of protection would necessarily benefit capital, over land. Agricultural labor would be adversely affected. Of course, industrial labor would benefit. Madison and Jefferson were keenly aware of the effects of Hamilton's proposals, and it was this conflict over how the economy was to be structured that led to the intensity of the political conflict in the period preceding the election of 1800.

Indeed, this view of the conflict of land and capital, of the agrarian against the commercial interest, is one that pervades debate in the United States until the Civil War. While Taylor's essay postdates the election of 1800, I contend that the views expressed by Taylor in 1814 mirrored the opinions of Madison and Jefferson in the 1790s.

5 Conclusion

I shall conclude with some brief remarks about the consequences of this conflict. Although I have posed the conflict in terms of an agrarian interest against a commercial interest, I have also suggested that Madison and Jefferson viewed it in terms of how best to organize the economic development of the United States. Consistent with my interpretation of Condorcet's optimism, the two Republicans believed that agricultural expansion could lead to increased economic power for the U.S. However, Hamilton appeared correct in his view that only manufacturing was capable of rapid productivity increase. Thus, for the growth of the agrarian empire, it was necessary for the U.S. to expand its boundaries. This makes

⁵ There is one consequence of the Hamilton scheme that I have not emphasized, though it is consistent with the view presented by Madison and Jefferson. If the US focused on manufacturing development, then it would be dependent on British capital, and thus become a satellite of the metropole. It is possible that the defeat of Hamilton was necessary for the creation of what Jefferson later called the "Empire for Liberty."

Jefferson’s appetite for the western territory of Louisiana perfectly intelligible. If this expanded agrarian empire was made available to free labor, then the immiseration of labor would not occur. However, this would depend on maintaining the productivity of free agrarian labor against that of slave labor in the plantation economy.

Secondly, it is clear from Madison’s polemics in Congress in 1794 that he understood that Britain’s commercial empire could dominate an agrarian economy, such as the US, through Britain’s control of both capital and trade. The basis for his argument for a trade war against Britain was that Britain’s fundamental need for food exceeded America’s need for manufactures. In Madison’s view, manufactures were superfluities. In actual fact (if I understood 19th Century British–U.S. trade correctly), Britain maintained a persistent trade deficit with the U.S., which it covered by a large trade surplus with the rest of the world. Madison appears to have been correct in his long-term view.

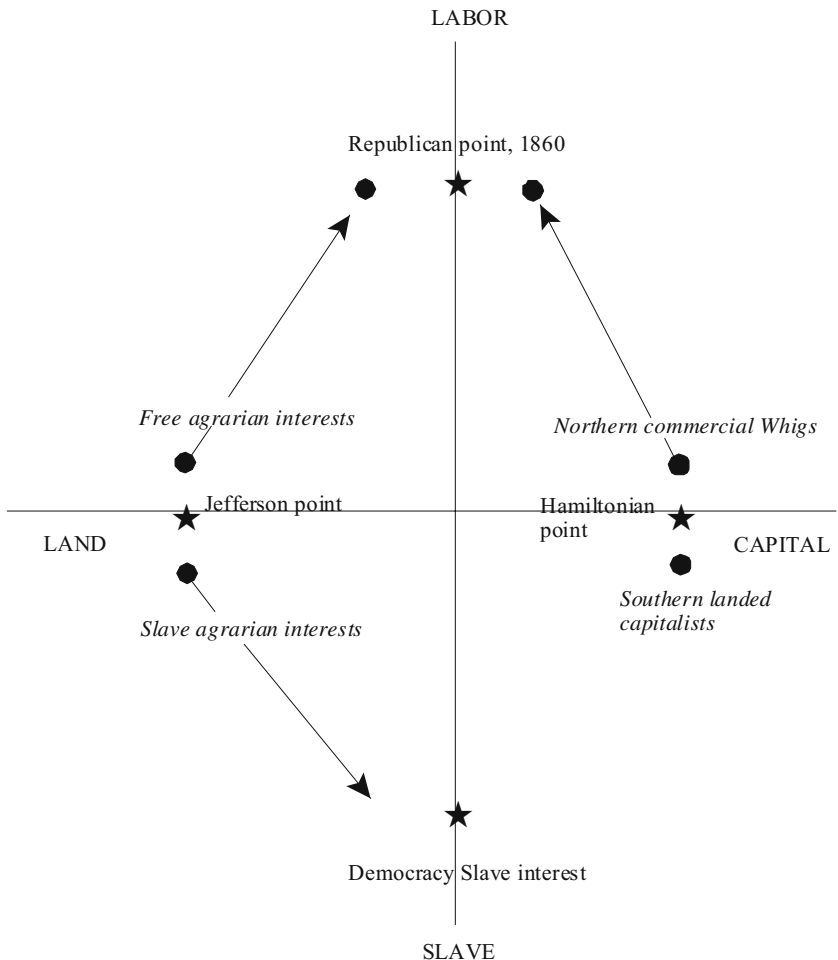


Fig. 2 A schematic representation of land and capital in the US: 1860–1860

For Madison and Jefferson, the issue of reconstructing the political economic configuration in the period leading up to the 1800 election was of paramount importance. From the perspective of Condorcet's Jury Theorem, such an election involves collective decision-making under risk. The more debate and information about possible futures, the more likely would the election lead to the attainment of a superior alternative. I have suggested that Madison considered that a heterogeneous electorate may choose representatives "pre-eminent for ability and virtue." This suggests that the election of Jefferson, and later Madison, justified their particular perspectives on the future.

To conclude, it may be worthwhile to refer to a formal model of how the U.S. polity works. The dimension that concerned Hamilton is the land-capital axis in Fig. 2. He was concerned to put in place a hard money principle. As Beard noted [9], most agrarian interests opposed this, since they were essentially debtors, or short of capital, at least. I believe that Madison initially stood with Hamilton in the figure (concerned about debt and paper money). The second axis in Fig. 2 is a labor axis. From my interpretation of the remarks of Jefferson and Madison, they believed that Hamilton's Whiggish schemes would immiserate agricultural labor. However, to found a coalition against Hamilton, it was necessary to create a coalition of agricultural labor and agrarian, slave owning interests. Because slavery had to be suppressed for this coalition to be maintained, I infer that the Republican coalition involved pro-slavery agrarian interests. Later in life, Madison feared that this inherent conflict of interest would destroy the Republic [39, 40].

The Republicans thus constructed a compromise coalition against Hamilton. Over time, the opposition between Whigs, or Federalists, and Republicans hardened. It was not until slavery became a serious issue in the 1840s to the 1860s that policy positions that were "liberal" on the labor axis could be articulated by candidates such as Fremont and Lincoln [58]. Figure 2 suggests that, contrary to the mean voter theorem, U.S. politics is based on permanent opposition between contending coalitions. These coalitions derive their logic from differing opinions about the fundamental aspects of the polity. In other words, the polity reflects both aspects of Condorcet's ideas. On the one hand, there is contention over the veracity of views concerning the structuring of society. On the other hand, the positions adopted by the contending parties changed slowly over time, illustrating not chaos so much as dynamic change [47]. These transformations may be modelled in a way that is consistent with Madison's own ideas as expressed in Federalist 10—about the contest between preferences per se, and beliefs [60]. Obviously, interests can dominate, at the cost of the "probability of a fit choice."

References

1. Adair DG (1943) The intellectual origins of Jeffersonian democracy: republicanism, the class struggle, and the virtuous farmer. Ph.D. Thesis: Yale University
2. Adair DG (1974) Fame and the founding fathers. Colbourn T (ed) Norton, New York
3. Adair DG (2000) The intellectual origins of Jeffersonian democracy. Lexington Books, Lanham, MD
4. Allen R (1988) The price of freehold land and the interest rate in the seventeenth and eighteenth centuries. *Econ Hist Rev* 41:33–50
5. Appleby J (1992) Liberalism and republicanism in the historical imagination. Harvard University Press, Cambridge

6. Arrow K (1951–1963) *Social choice and individual values*. Wiley, New York
7. Badinter E, Badinter R (1988) *Condorcet: un intellectuel en politique*. Fayard, Paris
8. Baker KM (1975) *Condorcet: from natural philosophy to social mathematics*. Chicago University Press, Chicago
9. Beard C (1913) *An economic interpretation of the constitution of the United States*. Macmillan, New York
10. Beard C (1915) *Economic consequences of Jeffersonian democracy*. Macmillan, New York
11. Brands HW (2000) *The first American: the life and times of Benjamin Franklin*. Random House, New York
12. Brewer J (1988) *The sinews of power*. Harvard University Press, Cambridge
13. Commager HS (1977) *The empire of reason: how Europe imagined and America realized the enlightenment*. Doubleday, New York
14. Marquis de Condorcet N (1785) *Essai sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix*. L'imprimerie Royale, Paris
15. Marquis de Condorcet N (1794) *Esquisse d'un tableau historique des progrès de l'esprit humain*. Gravier, Paris
16. Crafts N (1994) *The industrial revolution*. In: Floud R, McCloskey D (eds) *The economic history of Britain since 1700, Vol 1*. Cambridge University Press, Cambridge, pp 44–59
17. Dahl R (2002) *How democratic is the American constitution?* Yale University Press, New Haven
18. Destutt de Tracy A-L-C (1798) *Commentaire sur l'esprit des lois de Montesquieu*. Desoer, Paris
19. Downs A (1957) *An economic theory of democracy*. Harper, New York
20. Elkins S, McKittrick E (1993) *The age of federalism: the early American republic, 1788–1800*. Oxford University Press, Oxford
21. Freeman J (ed) (2001) *Hamilton: writings*. Library of America, New York
22. Gibbon E (1994) *The history of the decline and fall of the Roman empire*. Womersley D (ed) Penguin, Harmondsworth [1781]
23. Hinich M (1977) *Equilibrium in spatial voting: the median voter result is an artifact*. *J Econ Theory* 16:208–219
24. Hume D (1985) *A treatise of human nature*. Collins, London [1752]
25. Hume D (1985) *Essays moral, political, and literary*. Miller E (ed) Liberty Fund, Indianapolis [1777]
26. Ketcham R (1971) *James Madison: a biography*. University Press of Virginia, Charlottesville
27. Kramnick I (1990) *Republicanism and bourgeois radicalism*. Cornell University Press, Ithaca
28. Kramnick I (1992) *Bolingbroke and his circle*. Cornell University Press, Ithaca
29. Lindert P (1994) *Unequal living standards*. In: Floud R, McCloskey D (eds) *The economic history of Britain since 1700, Vol 1*. Cambridge University Press, Cambridge, pp 357–386
30. Lopez C-A (1966) *Mon cher papa: Franklin and the ladies of Paris*. Yale University Press, New Haven
31. Lopez C-A, Herbert EW (1975) *The private Franklin*. Horton, New York
32. Madison J (1977) *Papers, Vol 10*. Rutland R, Hobson C (eds) University of Chicago Press, Chicago
33. Madison J (1979) *Papers, Vol 12*. Hobson C, Rutland R, Rachal W, Sissan J (eds) University Press of Virginia, Charlottesville
34. Madison J (1985) *Papers, Vol 15*. Mason T, Rutland R, Sissan J (eds) University Press of Virginia, Charlottesville
35. Malthus T (1970) *An essay on the principle of population*. Penguin, London [1798]
36. Mayer D (1994) *The constitutional thought of Thomas Jefferson*. University Press of Virginia, Charlottesville
37. Mazzei P (1786) *Recherches historiques sur les Etats Unis*. Paris
38. McCoy DR (1980) *Jefferson and Madison on Malthus: population growth in Jeffersonian political economy*. *Va Mag Hist Biogr* 88:259–276
39. McCoy DR (1980) *The elusive republic*. University of North Carolina Press, Williamsburg, Va
40. McCoy DR (1989) *The last of the fathers. James Madison and the republican legacy*. Cambridge University Press, Cambridge
41. McDonald F (1979) *Alexander Hamilton: a biography*. Norton, New York

-
42. McGrath D (1983) James Madison and social choice theory: the possibility of republicanism. College Park, MD: University of Maryland, unpublished doctoral dissertation
 43. McKelvey RD, Schofield N (1986) Structural instability of the core. *J Math Econ* 15: 267–284
 44. McLean I (2001) Rational choice and British politics. Oxford University Press, Oxford
 45. McLean I, Hewitt F (1994) Condorcet: foundations of social choice and political theory. Edward Elgar, Aldershot, UK
 46. McLean I, Urken A (1992) Did Jefferson or Madison understand Condorcet's theory of social choice? *Public Choice* 73:445–457
 47. Miller G, Schofield N (2003) Activists and partisan realignment. *Am Polit Sci Rev* 97: 245–260
 48. North D, Weingast B (1989) Constitutions and commitment: the evolution of institutions governing public choice in seventeenth century England. *J Econ Hist* 49:803–832
 49. O'Brien P (1988) The political economy of British taxation 1660–1815. *Econ Hist Rev* 41:1–32
 50. Peterson MD (ed) (1984) Thomas Jefferson: writings. The Library of America, New York
 51. Plumb JH (1967) The growth of political stability in England: 1675–1725. Macmillan, London
 52. Porter R (2000) Enlightenment: Britain and the creation of the modern world. Allen Lane, London
 53. Rakove J (ed) (1999) James Madison: writings. Library of America, New York
 54. Randall WS (1993) Thomas Jefferson: a life. Holt Rinehart, New York
 55. Saari D (1997) Generic existence of a core for q-rules. *Econ Theory* 9:219–260
 56. Schofield N (2002) Evolution of the constitution. *Br J Polit Sci* 32:1–20
 57. Schofield N (2002) Quandaries of war and of union: 1763–1861. *Polit Soc* 30:5–49
 58. Schofield N (2003) Madison and the founding of the two party system in the U.S. In: Kernell S (ed) James Madison: the theory and practise of republican government, Stanford University Press, Stanford, pp 302–327
 59. Schofield N (2003) Power, prosperity, and social choice: a review. *Social Choice Welfare* 20:85–118
 60. Schofield N (2003) Constitutional quandaries and critical elections. *Polit Philos Econ* 2: 5–36
 61. Schofield N (2004) Equilibrium in the spatial valence model of politics. *J Theor Polit* 16:447–481
 62. Shaw-Taylor L (2001) Parliamentary enclosure and the emergence of an English agricultural proletariat. *J Econ Hist* 61:640–662
 63. Sloan H (1995) Principle and interest. Oxford University Press, New York
 64. Smith A (1981) An inquiry into the nature and causes of the wealth of nations. Liberty Fund, Indianapolis, IN [1776]
 65. Smith JM (ed) (1995) The republic of letters, Vol 1. Norton, New York
 66. Stasavage D (2002) Credible commitment in early modern Europe: North and Weingast revisited. *J Law Econ Organ* 18:155–186
 67. Urken A (1991) The Condorcet–Jefferson connection and the origins of social choice theory. *Public Choice* 72:213–236
 68. Weisberger B (2000) America afire. Harper Collins, New York
 69. Williams B (1960) The Whig supremacy, 1714–1760. Clarendon Press, Oxford
 70. Williams M (1998) Voice trust and memory. Princeton University Press, Princeton, NJ
 71. Womersley D (2002) Gibbon and the watchmen of the holy city. Oxford University Press, Oxford