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Malthus v. Bailey on the Measure of Value: A Lesson in “Methodological Humility”

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Abstract

That Malthus was guilty of egregious error in his claim to have established the labor-commanded magnitude as an “invariable” unit of value is well-known. Even his modern biographer could appeal only to a “kink or a crotchet, some kind of cerebral block” to excuse Malthus’s persistent failure to recognize the manifestly tautological character of his position. Yet the familiar form of Malthus’s argument, as it appeared in his later work, differed in several respects from its earliest statement in the first edition of his *Principles*. In this essay we trace out the several changes made to Malthus’s argument, often in response to his many critics; and we find in the midst of those alterations a common characteristic that serves to reveal the character of that “kink or crotchet”: an obsession with mathematical operations producing a unit outcome.

We draw two lessons from this sorry episode in our history. First, the sterility of the debate between Malthus and his critics serves to highlight the central importance of a precise and commonly understood vocabulary of scientific expression. This was, it is true, no more than a dispute over words; but as they are the vessels of our thoughts, words—of precise and commonly understood meaning—are critical to the progress of a science. Second, the heat of that debate highlights the insidious capacity of practitioners to mistake for scientific principles what are no more than “intricate series of definitions,” a lesson which, when taken seriously, cannot fail but to impart a salutary “methodological humility.”

Malthus v. Bailey on the Measure of Value: A Lesson in “Methodological Humility”

Alas, the history of economics reveals that economists are as prone as anyone else to mistake chaff for wheat and to claim possession of the truth when all they possess are intricate series of definitions or value judgements disguised as scientific rules. . . . One justification for the study of the history of economics, but of course only one, is that it provides a more extensive ‘laboratory’ in which to acquire methodological humility about the actual accomplishments of economics. (Blaug 1997, 703-4)

“This chapter is logomachy, simply and purely,” so said an anonymous (1826) *Westminster Review* critic of Samuel Bailey’s *Critical Dissertation on . . . Value* (1825)¹. But the epithet is not limited to a single chapter for some pages later we learn that “the same thing is to be said of this author’s chapters, one after another. The same *ignoratio elenchi*; the same fighting with a shadow” (Anonymous [1826]1967, 157 and 165). No other episode in the history of our discipline better illustrates Blaug’s charge in the epigraph above than does the Classical dispute over the purpose and character of a “measure of value.” The discourse was opened by Ricardo’s ([1817] 1951-73, I 17, n.3) famous proposal that it would be “of considerable use towards attaining a correct theory to ascertain what the essential qualities of a standard are, that we may know the causes of the variation in the relative value of commodities,” and it closed with J. S. Mill’s judicious survey of the respective positions in his *Principles* ([1848] 1976, 564-68). To the irretrievable detriment of

¹ Although published anonymously, the review is commonly attributed to James Mill, an attribution that O’Brien and Darnell (1982, chap. 5) found to be consistent with their statistical tests of style characteristics.

posterity, Ricardo's participation in the discussion was, of course, cut short by his untimely death in 1823, a passing that meant the loss not only of his incisive analysis but also of the unfailing patience and civility with which his contributions were conveyed. Unfortunately, those qualities were not widely shared among his interlocutors, and the subsequent dispute often descended to the depths of sophistry, not infrequently captious and tendentious as well.

The fervor of the participants is, for modern readers, hard to credit, until we grasp the very great importance with which they endowed the issues involved. Logomachy it was, but for authors who saw themselves as responsible for the nurture of a new science in a hostile world, a disagreement as to the content and application of its core concept was no trivial matter. Bailey's reviewer excused the sharp tone of his critique not so much because Bailey's caviling "is a spirit which ought to be repressed . . . in every department of literature," but "because in Political Economy it is peculiarly noxious" for the threat posed to a young and vulnerable science: "While the knowledge of the science is still confined to a comparatively small number, it has two powerful classes of enemies, the interested, and the ignorant; who, we daily see, assume to themselves a merit in decrying it." Those critics will seize upon any opening, and one "which best answers their purpose is the diversity of opinion which seems to prevail among those who pretend to the knowledge of the science." It is precisely such an opening that is created by "writers who, from lack of knowledge, or abundance of conceit, fancy they have made discoveries where there are none to be made, who confound diversities of expression with discordance of ideas, and magnify into importance objections which are either trivial, or totally without foundation" (Anonymous 1826, 172). But the dispute could not be "repressed" for it involved the central concept of the discipline. Speaking of a visit by McCulloch to his London residence, Ricardo reported in a letter to Hutches Trower (24 July 1823) that "he attended the last meeting of our Political Economy Club and the result of our discussions on that day convinced him, as we all had been long before convinced, that the progress of the science is very

much impeded by the contrary ideas which men attach to the word value” (1951-73, IX, 312).

Thomas DeQuincey, who, like others of Ricardo’s disciples, seems to have been more “Ricardian” than the master himself, observed with regard to the question of value, “in relation to Political Economy it is all in all: for most of the errors (and, what is much worse than errors, most of the perplexity) prevailing in this science take their rise from this source” (1824, 342).² Likewise, in opening his discussion of “the measurement of value,” Bailey described it as “a subject which has made a conspicuous figure in the writings of political economists and than which none perhaps has been a greater source of error and confusion” ([1825]1967, 94).

The purpose of such a measure is evident from Ricardo’s earliest statement: it promised a solution to “the problem of locating the source of variations in the ratios of exchange between goods” (Blaug, 1997, 95). Ricardo never doubted the importance of such a standard. In a manuscript written just weeks before his death, he rebuked those who refuse to go beyond the obvious ratio character of commodity exchange rates. When, for example, we observe a decline in the rate at which the monetary metal exchanges for cloth, we can, he allowed, describe such an event with equal propriety as either a decline in the value of cloth or a rise in the value of money, “but,” he insisted, “in Political Economy we want something more[;] we desire to know whether it be owing to some new facility in manufacturing cloth that its diminished power in commanding money is owing, or whether it be owing to some new difficulty in producing money” (1951-73, IV, 374-5). On this, Malthus agreed completely, telling the readers of the second edition of his *Principles* that “nothing appears to me more essential, in an ‘Inquiry into the nature and causes of the Wealth of Nations,’ than to have the means of distinguishing between the rise of one commodity and the fall of another” ([1836] 1986, 84n.). Modern readers are, of course, inclined to dismiss the Classics’

² While describing DeQuincey as “one of the most accomplished of Mr. Ricardo’s disciples,” Bailey ([1825]1967, 28 and 59-60) observed with some justice that he “pushes Mr. Ricardo’s doctrines to their remotest consequences, and thus, if they are untrue, necessarily exposes their incorrectness by the paradoxes into which he falls.”

earnest quest for an “invariable standard of value” as no more than another of the mildly amusing antics of the intellectual primitives. In this we have adopted the position (if not the tone) advanced by Bailey in opposition to that quest, the very position which that anonymous *Westminster* reviewer dismissed as arising from a “lack of knowledge” and as “totally without foundation.” Were it possible to return to our midst, Malthus and Ricardo could prick our smug complacency with the observation that we too occasionally find ourselves thwarted by the lack of a “means of distinguishing between the rise of one commodity and the fall of another.” They could, for example, point to the inevitable appearance, after a period of dollar depreciation, of articles wondering whether such a trend reflects a “weakening” of the dollar or a “strengthening” of the euro, or Sterling, or the yen, or any other unit of interest. Surely when we find ourselves engaged in such speculation, that old Ricardian problem has come back to haunt us.

No doubt there are lessons in “methodological humility” to be learned from this episode. To advance, science requires stable communication amongst its practitioners. That communication is necessarily conducted in verbal symbols—words. Without consensus on a stable mapping from symbol to conceptual content, communication fails, precise manipulation and expression of concepts is impaired, distinctions are blurred. At some point in its development any science must give attention to the establishment of a shared vocabulary, but such activity is not itself scientific analysis. The Classical dispute over a “measure of value” is for us a cautionary tale. No matter the passions of the contending parties, logomachy alone necessarily fails to carry the discourse beyond tautology and quickly descends to sophism. Generations later, after the passions have cooled and the vocabulary solidified, the proofs, which to their proponents seemed self-evident, are seen for the empty sophisms that they are; and positions which, in the heat of battle, were dismissed as “without foundation,” may win the day. A familiarity with this experience of our Classical forebears may, at the least, remind us of the possibility that our own most cherished disputes could meet the same fate.

Evolution of Malthus's Measure: from Confusion to Tautology

Although Ricardo started this hare, Malthus was the most assiduous in its pursuit, returning to the question repeatedly over the nearly fifteen years left to him after the publication of his first *Principles* (1820).³ Yet his exertion on this point elicited only vigorous denunciation from his critics and no more than embarrassed forbearance from his friends. Among the latter, we have his Haileybury colleague and early memorialist, William Empson, who, in a review of the posthumously published second edition of the *Principles* (1836), commented that its arguments concerning the measure of value “are, we think, the least satisfactory part of all Mr. Malthus’s writings.” But, in Malthus’s defense, this unfortunate outcome “is to be attributed mostly to the subject itself,” and “certainly arose by no means from want of attaching sufficient importance to it, or of taking sufficient pains about it, as all his friends, learned and unlearned, can bear witness” (1837, p. 469; also quoted in James 1979, 321). Even his twentieth-century reviewer was moved to explain Malthus’s persistent failure to recognize the manifestly tautological character of his position as the outcome of a “kink or a crotchet, some kind of cerebral block, a patch of mental fog” (James 1979, 321).

Among his critics, few could surpass Thomas DeQuincey for sweeping derision. In a review of Malthus’s *Measure of Value*, DeQuincey expressed himself as willing to grant Malthus praise for his work on population alone, but even here the praise was turned to insult. Malthus, according to DeQuincey, was simply fortunate; he stumbled upon a context where insight could be achieved in the absence of sustained analysis: “his success was in a path which required no logic.

³ Ricardo’s participation in the discussion was, as we have noted, cut short by his early death just a few months after the publication of Malthus’s *Measure of Value*; but there is some indication that he was already growing tired of Malthus’s obduracy. After repeated correspondence on the arguments advanced in Malthus’s pamphlet, Ricardo opened what was to be his last letter to Malthus with these words: “I have only a few words more to say on the subject of value, and I have done.” Then, after trying one more time to convince his friend that the position in which he had invested so much rested on tautology (“Your argument always supposes labour to be of an uniform value, and if we yielded that point to you there would be no question between us”), Ricardo closed with an affirmation of his personal regard which, in its great poignancy, must have drawn Malthus back repeatedly to reread the passage in the painful days following Ricardo’s sudden death just twelve days after the words were composed: “And now my dear Malthus I have done. Like other disputants after much discussion we each retain our own opinions. These discussions however never influence our friendship; I should not like you more than I do if you agreed in opinion

... he took an obvious and familiar truth . . . and showed that it teemed with consequences.”

Although Malthus was able to draw the inferences contained in his “familiar truth” that population is limited by the means of subsistence, those “are not remote inferences, but immediate and proximate.” Hence, “Not logic but a judicious choice of his ground placed Mr. Malthus at once at a station from which he commanded the whole truth at a glance—with a lucky dispensation from all necessity of continuous logical processes.” This alone can explain the influence of his writings on population, for in other areas of economics, “His failures and his errors have arisen in all cases from the illogical structure of his understanding.” Particularly with respect to the matter of value, “Having . . . repeatedly chosen to tamper with this difficult subject, Mr. Malthus has just made so many exposures of his intellectual infirmities—which, but for this volunteer display, we might never have known.” However grudgingly, even Malthus’s friends (and certainly posterity) must have agreed that on this point, Malthus “is not only confused himself, but is the cause that confusion is in other men. . . . and he who takes Mr. Malthus for his guide through any tangled question, ought to be able to box the compass very well; or before he has read 10 pages he will find himself . . . ‘maffled,’—and disposed to sit down and fall a crying with his guide at the sad bewilderment into which they have both strayed” (1823, 586-7; emphasis in original).

The First *Principles*: What is to be Measured?

Right from the beginning, Malthus’s approach to the problem of value brought him into conflict with his friend from Gatcomb Park. Wrapping himself in the aura of Adam Smith, Malthus insisted that it is the quantity of labor that a commodity will command in the market, and not the quantity embodied in its production, that serves as the appropriate measure of value. Obviously, even at its birth, the discourse took on that character of a dispute over definition that was to continue throughout its life. We see also in this first systematic treatment, in the first edition of

the *Principles*, evidence of that “kink or crotchet” of Malthus’s mind that was to develop over subsequent revisions into the source of that wholly tautological argument that would so dismay his friends and annoy his critics.

What was wanted, said Malthus of the first edition, was “some estimate of a kind which may be denominated *real value in exchange*, implying the quantity of the necessities and conveniences of life which . . . wages, incomes, or commodities will enable the possessor of them to command.” The concept of value is properly employed in this way, as the command over the “mass” of commodities, because such a definition accords with common usage—a strategy which will later be enshrined as the first rule of definition ([1827]1954, 4-5). Leaving aside the separate notion of use value, “every other interpretation of the term value seems to refer to some power in exchange; and if it do not refer to the power of an article in exchange for some one commodity named, such as money, it must refer to its power in exchange for 3 or 4, 5 or 6, 8 or 10 together, to the mass of commodities combined, or to its power of commanding labour which most nearly represents this mass.” If we adopt Ricardo’s association of the term “value” with the quantity of labor embodied, we “confound at once the very important distinction between *cost* and *value*”—an objection which, ironically, will later be directed at Malthus himself by Bailey ([1820] 1989, I, 60-61). Samuel Hollander has already thoroughly explored this early association of “real value” with general purchasing power (1997, 275-83). It remains for us only to notice that nothing in this early treatment indicates any failure on Malthus’s part to appreciate Ricardo’s object of identifying changes in the “facility” of production. On the contrary, because increases in the “facility of production” can extend to a wide range of commodities at the same time, “the value of any one of them in exchange for any other, or even compared with the mass of the others collectively, might remain exactly the same.” Consequently, “in order to express the important effects arising from the facility of production, we must take into our consideration either the

quantity of labour which commodities have cost, or the quantities of labour which they will command.” But, because of the acknowledged effect of a change in the rate of profit in altering relative exchange rates among commodities of differing capital-labor ratios, “the quantity of labour which commodities have cost never approaches to a correct measure of exchangeable value.” The labor commanded by commodities “can alone express the degree in which they are suited to the wants and tastes of society and the degree of abundance in which they are supplied, compared with the desires and numbers of those who are to consume them” ([1820]1989, I, 119-120; *cf.* 88-96).

Labor command possesses the additional merit that it necessarily captures all sources of value: “The great pre-eminence of that measure of value which consists in the quantity of labour which a commodity will command, over that which consists in the quantity of labour which has been actually employed about it, is that while the latter involves merely one cause of exchangeable value, though in general the most considerable one; the former, in addition to this cause, involves all the different circumstances which influence the rates at which commodities are actually exchanged for each other.” Nevertheless, although the labor commanded magnitude “appears to approach the nearest to a measure of real value in exchange,” even that unit is not a perfect standard. As with any other ratio of exchange, the quantity of labor commanded can change either because of a change affecting the commodity itself or because of a change affecting the market for labor: “labour, like all other commodities, varies from its plenty or scarcity compared with the demand for it, and, at different times and in different countries, commands very different quantities of the first necessary of life.” Thus, though approaching “the nearest” to an ideal standard, even labor command will not permit us to locate with certainty the source of variations in exchange ([1820] 1989, I, 124-5).

To all this Ricardo, of course, had to object; and he did so in the extensive “Notes” that he composed to Malthus’s *Principles*, which, though never published, were in Malthus’s possession for several weeks in the spring of 1821 and were the subject of repeated discussion between the two friends (Ricardo 1951-73, II, ix-xi). Ricardo’s chief objection was Malthus’s apparently cavalier disregard for the quality of invariability as a necessary characteristic of a standard of value measure. In a particularly forceful statement of the notion that would later serve as the point of Bailey’s attack, Ricardo insisted that “[w]hatever commodity any man selects as a measure of real value, has no other title for adoption, but its being a less variable commodity than any other. . . . Whoever then proposes a measure of real value is bound to shew that the commodity he selects is the least variable of any known.” This condition is contravened by Malthus’s argument at two points: first, when “he says a measure of real value implies a certain quantity of the necessities and conveniences of life,” though “acknowledging [contrary to Ricardo’s fundamental principle] that these necessities and conveniences of life are as variable as any of the commodities whose value they are selected to measure”; and second, when he fixes on labor command as his standard, a magnitude which “he acknowledges . . . is subject to the same contingencies and variations as all other things” (Ricardo 1951-73, II, 29-31).

The criticism is not quite deserved on either count. First, Malthus acknowledged that, though a measure of general purchasing power “would be very desirable, . . . when we consider what a measure of real value in exchange implies, we shall feel doubtful whether any one commodity exists, or can easily be supposed to exist, with such properties as would qualify it to become a standard measure of this kind” ([1820] 1989, I, 60). Ricardo (1951-73, II, 34) accused Malthus of confusing value (reflecting the “facility or difficulty of production”) with the concept of “wealth” (the mass of “utility to afford enjoyment to man”). This, however, is not a distinction that eluded Malthus; a rise in wealth is indeed among “the important effects arising from facility of

production”; but lacking the concept of a weighted average, we must certainly “feel doubtful” that the variety of movements in the “difficulty of production” experienced across the range of commodities could ever be aggregated into a coherent measure. Indeed, in the absence of such an aggregation scheme, “an estimate of the comparative prices of all commodities as would determine the necessities, conveniences, and amusements of life, including labour, would not only be too difficult and laborious for use, but generally quite impracticable” (Malthus [1820] 1989, I, 126).

Likewise, Malthus was no less convinced than Ricardo that a unit of value measure must exhibit the quality of “invariability,” though such a claim is impossible to sustain in the face of his expanded conception of the object of measurement. For Ricardo, the magnitude to be measured possesses a unique physical dimension: the “difficulty of production” is, as he put it in his “Notes,” “nearly in proportion to the quantity of labour . . . bestowed upon” the commodity; or, as he states it in his first *Principles*, “If we had then an invariable standard by which we could measure the variation in other commodities, we should find that the utmost limit to which they could permanently rise was proportioned to the additional quantity of labour required for their production” (1951-73, I, 56 and II, 35). Malthus, however, advances his labor commanded unit on the ground that it encompasses, in addition to the physical quantity of labor bestowed, the profit earned on the wages advanced. But alterations in wage and profit rates are felt to varying degrees in all commodities. If labor’s purchasing power over commodities is presumed to vary, we cannot pretend to locate alterations in physical input requirements by observing the variations in commodities’ purchasing power over labor.

None of this, of course, renders the labor command unit meaningless. Changes in a commodity’s command over labor, regardless of their “source,” indicate the degree to which possession of the commodity conveys a power to marshal labor in production. Malthus

recognized that his unit possessed this capacity, just as it did for Smith and for Petty before him: “the accumulation of capital, and its efficiency in the increase of wealth and population, depends almost entirely upon its power of setting labour to work” (Malthus [1820] 1989, 120). Elsewhere, Malthus suggested just such an application in his passing comment that “the best practical measure of the relative wealth of different countries would be the quantity of common labour which the value of the whole annual produce of each country would enable it to command at the actual price of the time, which in some rich countries might amount to above double the number of families actually employed” (1823, 56). The comment strikingly echoes Smith’s earlier observation that because the labor commanded by the national product exceeds the labor embodied in its production, “If the society was annually to employ all the labour which it can annually purchase, . . . so the produce of every succeeding year would be of vastly greater value than that of the foregoing,” though “there is no country in which the whole annual produce is employed in maintaining the industrious” (Smith [1776] 1976, 71 and 355-6; see also Hueckel 2000, 342-3). Apparently this last, according to Malthus, is particularly true in “rich countries.”

Nevertheless, while the labor command unit can tell us something about potential productive capacity at the moment, we cannot draw any inferences regarding future changes in that capacity unless we have information concerning the capitalist’s remuneration. This desire to judge the “stimulus to production” became confounded in Malthus’s mind with a measure of labor cost: “As it appears then that the great stimulus to production depends mainly upon the power of commodities to command labour, and especially to command a greater quantity of labour than they have cost, we are naturally led to consider this power of commanding labour as of the utmost importance in an estimate of the exchangeable value of commodities” ([1820] 1989, 120). But this is no brief for a labor command unit; the rate of profit is a dimensionless magnitude and hence can be calculated in terms of any unit desired, as Ricardo observed in his “Notes”: “Estimated in

iron, sugar, coffee, a commodity has cost me a certain quantity of one of these articles—I will not produce it unless it will exchange for more of that particular article” (1951-73, II, 91). Neither is this a call for an invariable standard. By severing the Ricardian connection between cost and input requirements, Malthus has shifted the discussion entirely within the realm of exchange ratios, rendering nonsensical any claim to invariability. All this, however, is lost on Malthus; and, as we have seen, he relegates his labor command unit to the status of second best, it being disqualified by the instability of the real wage.

That Malthus accepted without question the oxymoronic notion of an invariable unit of exchange value is evident in the curious alternative standard advanced in place of the defective labor command concept. It is here that we see manifestation of that peculiar “crotchet” of Malthus’s thinking that, in subsequent iterations, became the defining characteristic of his value analysis. That peculiarity is a recurring confusion of the notion of invariability in some physical dimension with the application of arithmetic operations defined to produce a unit outcome, either as the product of a ratio and its inverse or as the sum of proportionate divisions of a whole. Here we encounter the inverse product form in the guise of what Hollander (1997, 285-89) describes as “a linked corn-labour index.” The argument is transparently tautological. Wheat’s command over labor, it is acknowledged, varies widely across time. “In the reign of Henry VII,” we are told, “half a bushel of this grain would purchase but little more than a day’s common labour. . . . A century afterwards, . . . half a bushel of wheat would purchase three day’s common labour.” Obviously, this is also a statement about labor’s command over wheat: “In the reign of Henry VII a day’s labour, according to the former statement, would purchase nearly half a bushel of wheat,” while that “former statement” implies that a century later, “a day’s labour would only purchase one-sixth of a bushel,—a prodigious difference.” From these observations we are drawn to the wonderfully trifling inference that a ratio varies inversely as its inverse: “When corn compared

with labour is dear, labour compared with corn must necessarily be cheap.” From this, we are apparently justified in the conclusion that though “neither of these two objects, . . . taken singly, can be considered as a satisfactory measure of real value, yet by combining the two, we may perhaps approach to greater accuracy. . . . If, then, we take a mean between the two, we shall evidently have a measure corrected by the contemporary variations of each in opposite directions, and likely to represent more nearly than either the same quantity of the necessities, conveniences, and amusements of life, at the most distant periods.” Even this composite unit is imperfect, however, it’s “principal defect” being an inability to account for alterations in commodity exchange rates arising from varying capital-labor ratios. But “no approximation hitherto suggested has ever pretended to estimate” those variations, and, further, such niceties “may without much error be neglected,” as relating “rather to riches than to exchangeable value.” This last is a less than persuasive vindication since, as Hollander observed, just a few lines earlier Malthus had defended his unit in terms of its ability to express a “nearly” uniform “quantity of necessities, conveniences, and amusements of life”—a clear reference to “riches” (Malthus [1820] 1989, I, 127-29; Hollander 1997, 287-88). Ricardo certainly was not persuaded. He characterized Malthus’s argument on this point as a “complete fallacy,” noting that Malthus’s tautological exercise with the labor-corn exchange rate is of no interest to one concerned with labor’s rate of exchange “estimated in all other commodities” (1951-73, II, 96-99).

Revisions: A “Most Curious” Table

Malthus too was evidently dissatisfied with his first attempt to wrestle with the value problem. As Pullen has observed, Malthus was apparently considering revisions to his argument even before his first edition was published. As he was preparing the lengthy contents summary appearing at the end of that edition, he inadvertently substituted two section titles that would later appear in the second edition, one of those substitutions involving chapter two, section iv (changed

to its second edition title, “Of the Labour which has been employed on a Commodity considered as a Measure of its Exchangeable Value”) (Malthus [1820] 1989, II, 467). By December, 1822, he described himself in a letter to Pierre Prévost (who had produced a French translation of the third edition of the *Essay on Population* and would later bring out a like translation of the much enlarged fifth edition [James 1979, 362-66]) as “very anxious to get out as soon as I possibly can another edition of my last work in which there will be some new views on a *standard of value* which requires a good deal of care and consideration” (Zinke 1942, 188, emphasis in original; see also Pullen in Malthus [1820] 1989, I, xliii-xliv). In the event, the second edition of *Principles* did not appear until 1836, nearly two years after his death; but Malthus did bring out a revised statement of his views on value in his *Measure of Value Stated and Illustrated* (1823).

Ricardo’s earlier criticisms apparently struck home. At any rate, Malthus went to some length in his revised statement to avoid any suggestion of a confusion between “value” and “wealth.” There can be no mistaking the statement on the opening page that the object of value analysis is to locate the cause of changes in commodity exchange rates. The analytical problem arises because “the power of one object to command another in exchange . . . may obviously arise either from causes affecting the object itself, or the commodities against which it is exchanged.” In the former case, “the value of the object itself may properly be said to be affected; in the other, only the value of the commodities which it purchases.” It is to aid in making this distinction that we require an invariable standard: “if we could suppose any object always to remain of the same value, the comparison of other commodities with this one would clearly show which had risen, which had fallen, and which had remained the same” (1823,1-2)⁴.

To further sharpen the distinction, a new terminology is introduced. Value expressed in terms of the invariable standard, reflecting as it does only those “causes affecting the object itself”

⁴ References to the Wrigley, Souden collection cite the original pagination to facilitate comparison with other reprints.

is to be designated “absolute or natural” value. An object’s exchange rates with all other commodities, subject as they are to variation arising from alterations in the “absolute values” of those other commodities, is considered its “nominal or relative value” (1823, 1-2). The like distinction carries over to the second edition of the *Principles* with only a minor linguistic alteration: there the “absolute value” of the *Measure* is transformed into “intrinsic value,” to be distinguished from changes arising from causes affecting “all the different commodities with which the first commodity might be exchanged,” those being “denominated the *extrinsic* causes of its power of purchasing” ([1836] 1986, 57-60).⁵

Finally, lest there remain any confusion regarding the possibility of a measure of “wealth,” or general purchasing power, we learn by the second page of Malthus’s pamphlet that “we must feel certain that no one object exists” that can serve that function. To suppose the existence of such a standard “would imply steadiness of value, not merely in one object, but in a great number, which is contrary to all theory and experience” (1823, 2-3). Apparently we have here achieved a higher level of certainty; three years earlier, in the first *Principles*, we could only “feel doubtful” of the existence of such a standard. That greater certainty likewise carries over to the second *Principles*, where we “must feel assured” that no such standard can be found; and, for good measure, we are reminded that “even if such a measure were attainable . . . it would not be a measure of value according to the most general use of the term.” Evidently Malthus had been won over to Ricardo’s understanding of the value problem in the years since he composed his first *Principles*, where he assured his readers that common usage understood the term to denote the power of purchasing “the mass of commodities combined.” By the time we come to the second *Principles*,

⁵ J. S. Mill, who was so well placed as an astute and close observer of the disputes occupying the economists of his father’s generation, was able thereby to state the central issues in those disputes with striking clarity. In illustrating this identification problem arising from the ratio character of the value concept, which so troubled both Malthus and Ricardo, Mill commented, “A coat may exchange for less bread this year than last, if the harvest has been bad, but for more glass or iron, if a tax has been taken off those commodities, or an improvement made in their manufacture. Has the value of the coat, under these circumstances, fallen or risen? It is impossible to say.” However, we can

that earlier interpretation is expressly repudiated: “as it is well known by experience that no considerable mass of commodities ever continues to be obtained with the same facility, it is observable that when we speak of the variations in the exchangeable value of a particular commodity, we refer almost invariably to its power of purchasing arising from intrinsic causes.” Indeed, the failure to distinguish these conflicting definitions has now become the most “fruitful source of error in the very elements of political economy” ([1836] 1986, 57-60).

In this “Notes” on Malthus’s proposed corn-labor composite standard, Ricardo had commented, “I hope Mr. Malthus will see the expediency of relinquishing so imperfect and so variable a standard” (1951-73, II, 99). Malthus obliged, but Ricardo could not have been satisfied with the outcome, for Malthus had managed to convince himself that (to employ the summary statement from his second *Principles*) “the varying wages, whether in corn or money, paid to the labourer at different periods for labour of the same character, . . . does not alter the value of the labour itself, or disqualify it from being used as a measure” ([1836] 1986, 99). In other words, although real and nominal wages vary across time, the “value of the labour itself” remains forever fixed, establishing the labor command unit as the ideal “invariable standard.” How Malthus came to this remarkable conclusion is an extraordinary instance of Blaug’s warning of the delusive power of “intricate series of definitions . . . disguised as scientific rules.”

The argument begins with a confirmation of the key role of labor in production. In the first *Principles*, we had been told that our attention is “naturally” drawn to consider labor as a unit of value measure because it is “most extensively the subject of exchange”—that is, “by far the greatest mass of value is given in exchange for labour” ([1820] 1989, II, 119). In the revised statement, this principle is turned to focus on production, and it is taken as a truism that the “great instrument of production is labour.” Now, if commodities are to continue to be supplied, the

“say” when “the cause in which the disturbance of exchange values originated was something directly affecting the coat itself, and not the bread or the glass” ([1848] 1976, 438).

capitalist's receipts must "be sufficient to pay the wages, profits and rents necessary to their production." Of course, rent can be excluded from this list since prices are determined at the margin, leaving rent as the intramarginal surplus. The point is most succinctly stated in Malthus's 1825 summary of his position read before the Royal Society of Literature: "rent, from the manner in which it enters into the composition of commodities, makes very little practical difference in the natural and necessary conditions of their supply, which will still be determined by the quantity of labour and profits necessary to produce them under the most unfavourable circumstances in which they continue to be brought to market" (1825, 176-77). The sum of wage and profit receipts, then, reflect the necessary conditions of production; but, in view of the acknowledged instability of the monetary unit, these payments must be expressed in "the objects necessary to give the producer the same power of production and accumulation as the natural money prices would have commanded." It is in this form that the capitalist's returns "may be considered as the natural conditions of the supply of commodities" (1823, 3-5).

At this point, and possibly in response to Ricardo's earlier objection that unit designations are irrelevant to the calculation of the rate of profit, Malthus acknowledges that exchange rates can be expressed in terms of any object, "and that what is true of labour in this respect is true of cloth, cotton, iron, or any other article." But he continues to insist that "the conditions of supply" depend not upon a commodity's exchange with other commodities but upon its "means of obtaining those objects which will continue to the producer the same power of production and accumulation." Those "objects" are, to his mind, labor units. Since "the specific advances of capitalists do not consist of cloth, but of labour; and as no other object whatever can represent a given quantity of labour, it is obvious that labour stands quite alone in this respect, and that it is the quantity of *labour* which a commodity will command, and not the quantity of any other

commodity, which can represent the conditions of its supply, or its natural value” (1823, 17-18; emphasis in original).

Obviously to this point, apart from the terminological addition of the “conditions of supply,” we have not left the argument of the first *Principles*. We find here, just as in that earlier statement, the same confusion between an index of aggregate potential capacity, on the one hand, and, on the other, a measure of production incentives. If labor is indeed “the great instrument of production,” then, as we have noticed, the labor command unit can be interpreted as an index of a merchant’s (or a nation’s) potential command over productive resources, provided the merchant (or the nation) chooses to direct this purchasing power to that effect. But the “conditions of supply” refer to the incentives prompting that choice, and Malthus fails to appreciate the import of Ricardo’s earlier observation that the question turns not on the purchasing power of product over labor or any other commodity but rather on the ratio of product to input “advanced,” each expressed in a common but arbitrary unit. Hence, in insisting that the “specific advances of capitalists do not consist of cloth but of labor,” Malthus’s argument in this revised form is no more compelling than it had been in the first *Principles*, where it had elicited Ricardo’s earlier objection; and this second appearance consequently prompted the like criticism from the young J. S. Mill:

In point of fact . . . the advances of capitalists do not consist of labour—they consist of wages; that is, of the food, clothing, and lodging of the labourer It is, however, really immaterial whether the advances are in one commodity or another. Whatever be the nature of the returns—be they in Corn, in cloth, or in any other commodity, they must always be such as to repay the expences of production, together with the ordinary profits of stock Labour, therefore, in this respect, possess no advantage over any other commodity ([1823] 1986, 54).

Having established, at least to his satisfaction, that labor is uniquely suited to serve as a unit of value measure, it remained for Malthus only to demonstrate labor’s “invariability.” Here the argument relies on those twin obsessions—definition by common usage and arithmetic operations producing a unit outcome—that surfaced in the statement of the first *Principles*. But now there is a

third characteristic worthy of notice: the sequence in which the argument is expressed takes on particular significance in directing us to the desired conclusion. Every statement of the principle begins with the single (labor) input case and then proceeds to the more complex case where “the great mass of commodities . . . is made up at the least of two elements—labour and profits” (1823, 13).

In the single-input world, there is no denying that commodity exchange rates equal ratios of unit labor input. If some exogenous event were to produce an equiproportionate decline in the in the input requirements for, say, sole and mackerel (the Malthusian analogue to Smith’s beaver and deer) while leaving all other commodities unchanged, then “With regard to such commodities, soles and mackerel would have become of less value, and consequently they would have become of less value with regard to a given quantity of labour.” Common usage confirms that, the “correct language in this case would be, not that labour had become dearer, but that soles and mackerel had become cheaper.” When such a decline in input requirements extends to all products, “though they might retain the same relative value compared with each other, they would all become more plentiful with regard to the wants of the society and any given quantity of labour.” Here too “the correct language would still be not that labour had become dearer, but that all commodities had become cheaper (1823, 6-7).

Having thus demonstrated by application of the rule of common usage that alterations in exchange ratios of commodities for labor in the single-input case always represent a change in the “value” of commodities against an “invariant” labor, it remains only to demonstrate the like result in the two-input world. Here we must contend with the Ricardo effect: since “the condition of the supply requires that a certain compensation be made in the final remuneration for the time” required in production, changes in the rate of profit will differentially affect commodity exchange rates in accord with variations in the capital-labor ratio. Consequently, “It cannot, then, be said with anything like an approximation towards correctness, that the labour worked up in commodities

is the measure of their exchangeable value.” Since the rate of profit influences the “condition of supply” of all commodities and since the operation of diminishing marginal product in agriculture ensures a decline in that rate with economic growth across time, by what standard “are we to measure and compare the value of commodities at these different periods?” (1823, 8-24).

Malthus is convinced that he has solved the problem by the discovery of what he rather ponderously denominates “the principle of compensation” but which is in fact nothing more than the rule that factor shares must sum to unity. His statement of the argument is revealing. If we compare today’s real wage with that paid at some time in the past, before the margin of cultivation had been extended to its current point, we will find that the “corn which pays the labourer is indeed obtained by a smaller quantity of labour, on account of the superior fertility of the soil from which it is raised,” but that lower labor input will be associated with a higher rate of profit. Consequently, “in the case of the corn which pays the wages, . . . the smaller quantity of labour necessary to produce it is made up by the greater rate of profits at which it is sold, and the value of wages is thus kept the same.” This is true regardless of the behavior of real wages for “[i]t may be laid down . . . as a general proposition, liable to no exception, that when the value of any produce can be resolved into labour and profits, then as the *proportion* of such produce which goes to labour increases, the proportion which goes to profits must decrease in the same degree.” But Malthus insists that this principle cannot apply “to corn or commodities in general . . . because if the quantity of labour required to produce them increases, the effect of this upon profits may be totally destroyed by a diminution at the same time of the quantity of produce awarded to the labourer” (1823, 26-29)

This, of course, is the same fallacy of *ignoratio elenchi* that the *Westminster Review* critic condemned in Bailey. The statement that a change in input requirements can be compensated by an offsetting change in the input return, leaving factor shares undisturbed, is irrelevant to the truth of a claim involving the consequences of a change in those shares. Malthus, however, was convinced

otherwise on the equally irrelevant ground that the factor shares in the total product are identical to those in that portion of the product paid to labor: “if instead of referring to commodities generally, we refer to the variable quantity of produce which, under different circumstances, forms the wages of a given number of labourers, we shall find that the variable quantity of labour required to obtain this produce will always exactly agree with the proportion of the whole produce which goes to labour; because however variable may be the amount of this produce, it will be divided into a number of parts equal to the number of labourers which it will command.” From this he draws the less than profound conclusion “that if to obtain the produce which commands ten labourers, 6, 7, 8, or 9 labourers be required, the proportion of the produce which goes to labour, in these different cases, will be $6/10$, $7/10$, $8/10$, or $9/10$, leaving $4/10$, $3/10$, $2/10$, or $1/10$ for profits.” Thus Malthus proves that the factor shares must sum to unity. But, he insists, this trivial result justifies him in stating his central principle: “Consequently, the value of the variable quantity of produce which, under different circumstances, forms the wages of a given number of men, being composed of the values of the two elements, labour and profits, varying as above described, must be constant, and may therefore, with propriety, be proposed as a standard measure” (1823, 30-32).

Malthus excuses, “on account of its great importance,” his lengthy treatment of “the necessary constancy of the value of labour.” For the same reason, we pause here to review the structure of his argument, using his summary statement as illustration. He begins from the single input case, where, by convention, variations in input requirements are characterized as a change associated with the commodity, not labor: “If labour alone, without any capital, were employed in procuring the fruits of the earth, the greater facility of procuring one sort of them compared with another, would not, it is acknowledged, alter the value of labour, or the exchangeable value of the whole produce obtained by a given quantity of exertion.” In this context, by common usage, “We should, without hesitation, allow that the difference was in the cheapness or dearness of the produce, not of

the labour.” Arguing by analogy from the single-input case, he then seeks to demonstrate the like result for the two-input world: “In the same manner it will follow, that when capital and profits enter into the computation of value, . . . the high or low reward of labour estimated in produce implies a change in the value of the produce, not a change in the value of the labour.” The result is said to “follow” by the “principle of compensation”: any rise in the wage is, on good Ricardian grounds, necessarily associated with a decline in the rate of profit, and, we are assured, “this diminution of profits in reference to the value of wages is just counterbalanced by the increased quantity of labour necessary to procure the increased produce awarded to the labourer, leaving the value of labour the same as before” (1823, 32-34).

So convinced was Malthus of the significance of this result that he illustrated his argument with a series of numerical examples displayed in a table, which Bailey characterized as “certainly one of the most curious productions in the whole range of political economy ([1825] 1967, 142). To Malthus’s eyes, the repeated entry of the unchanging value in column seven (see appendix) in the face of evident variations in the unit labor input (column one) and the real wage (column two), is an irrefutable demonstration of the principle that “the value of a given quantity of labour must, under every variety which can take place in the fertility of the soil and the corn wages of labour, be always constant” (1823, 40). That this table rests upon the same principle of compensating movements in factor shares developed in the supporting text can be readily demonstrated if we strip away the distraction of Malthus’s numerical entries and focus on the processes underlying the key columns, expressing the elements of those processes as follows:

q = corn output per laborer

θ_L = labor's share

w = corn wage

The columnar entries can then be written as follows (taking the row 1 entries as illustration).

	Explanation	Symbol	Row 1 Numerical Entry
Column 1	Output of ten laborers	$10q$	$(10 \times 15 \text{ qtrs} = 150 \text{ qtrs})$
Column 2	Corn wage per laborer	w	(12 qtrs)
Column 3	Wage bill for ten laborers	$10w$	$(10 \times 12\text{qtrs} = 120 \text{ qtrs})$
Column 4	Rate of profit on wages advanced	$(q - w)/w$	$(150 - 120)/120 = 25\%$
Column 5	Labor embodied in wage bill (column 3 \div q)	$10w/q = 10 \theta_L$	$10 \times (12/15) = 8$
Column 6	Profit received (column 3 \times column 4)	$(10w/q) \times (q - w)/w =$ $10(1 - w/q) = 10 (1 - \theta_L)$	$10(1 - 12/15) = 2$
Column 7	Column 5 + Column 6	$10 \theta_L + 10 (1 - \theta_L) = 10$	$8 + 2 = 10$

Hence, the recurrence of “the constant quantity which appears in the seventh column,” which Malthus proclaimed as revealing the “first and most important truth illustrated in the table,” proves only that the factor shares must by definition exhaust the product.

Ricardo's Advice

Malthus's argument is, obviously, nothing but an elaborately protracted *petitio principii*. It is remarkable only that he did not himself grasp the tautological character of his claim that “[i]t is only the varying wages of a given number of men bearing, *as the terms imply*, a constant relation to labour, which, under any changes in the quantity of labour required to produce them, can still

continue of the same natural value” (1823, 40; emphasis added). James Mill’s teenage son saw through the subterfuge without difficulty: “Mr. Malthus informs us that . . . the wages of a day’s labour are always of the same value, because they are the wages of a day’s labour!” (Mill [1823]1986, 57). The point was evident to Bailey, as well: “In the same way any article might be proved to be of invariable value; for instance, 10 yards of cloth. For whether we gave £5 or £10 for the 10 yards, the sum given would always be equal in value to the cloth for which it was paid, or, in other words, of invariable value in relation to cloth” ([1825] 1967, 145).

More restrained in his criticism, Ricardo was particularly generous and insightful in the comments he extended to his friend in their brief correspondence over the few weeks remaining before his death. For Ricardo, of course, the principal defect of Malthus’s newly revised measure was no different from that of his earlier attempt: it offered no hope of locating the source of physical changes in production requirements. As he wrote in his first letter to Malthus after reading the latter’s *Measure of Value*, “I have the same objection to your measure which I have always professed—you chuse a variable measure for an invariable standard” (1951-73, IX, 282). Indeed, the problem is all the more pronounced in Malthus’s revised labor-command unit since the argument turns there on the Ricardian principle of opposing movements in wage and profit rates. As Malthus states the case, changes in wage rates are translated into compensating movements in profits which are then communicated to all other commodities, leaving labor unchanged in “value.” As he saw it, one of the points “illustrated in [his] table is, that labour being constant, all commodities into which profits enter, which may be said to be nearly the whole mass, must fall on the fall of profits, and among these will, of course, be found metallic money” (1823, 41-42)⁶ To Ricardo, this was no more

⁶ From this Malthus concluded that the “rise in the money price of labour, occasioned by the fall of profits, which Mr. Ricardo considers as that necessary rise in the *value* of labour on which he makes so much depend in his system” signifies, contrary to Ricardo, “not a rise in the *value* of labour, but a fall in the value of money” (1823, 42n; emphasis in original). This conclusion must have particularly troubled Ricardo since it contradicts the very assumption of an invariable average money price level that he considered as essential to his demonstration of those opposing movements in wage and profit rates on which Malthus rests his claim. See Ricardo (1951-73, I, 110n).

than a linguistic subterfuge, treating labor market shocks as if they originated in commodity production: “If,” he suggested, “a plague . . . should take off half our people, . . . we might indeed agree to transfer the variation to the commodities, and to say that they had fallen and not that labour had risen, but I can see no advantage in the change” (1951-73, IX, 282).

Ricardo also recognized the error in Malthus’s repeated appeals to the single-input condition to justify claims regarding the two-input case. A month after his first letter responding to Malthus’s pamphlet, Ricardo tried again to convey his objections. There he acknowledged the obvious point that relative labor inputs exactly correspond to commodity exchange rates only when labor is the sole factor; but, he warned, that result cannot be applied to other circumstances. “Your mistake,” he told his friend, “appears to me to be this, you shew us that under certain conditions a certain commodity would be a measure of absolute value, and then you apply it to cases where the conditions are not complied with, and suppose it to be a measure of absolute value in those cases also” (1951-73, IX, 298-99). Apparently Malthus did not grasp the import of the warning for, some two months later, we find him writing, without apology or qualification, “The general concession that the value of commodities is determined by the *quantity* of labour employed upon them, when time is not concerned, is the foundation on which I rest.” From that foundation, composed of commodities produced by labor alone, Malthus moved to the two input world. There “commodities produced with capital and time, and the same quantity of labour, must exceed the former commodities in *natural and absolute value* exactly by the profits for the time the advances have been made, and these profits can only be reckoned in labour because the advances consist only of labour.” Having thus established that the labor-command magnitude expresses, by definition, the “natural and absolute value” of all commodities, he extended the tautology to labor: since it clearly appears that the labour which a commodity will command must be precisely the same as the labour worked up in it with the addition of the profits, it follows incontestably that a given quantity of labour must always

be of the same natural and absolute value, that is, if we estimate its value in the same way as we estimate the value of all other commodities, a given quantity of labour will always be composed of the same quantity of labour and profits united.” That Malthus was utterly blind to the circularity of his argument is strikingly evident in his claim to have demonstrated the “*peculiar and preeminent* fitness” of his labor-command unit to serve as a value standard. “Indeed,” he wrote, “I think I have done it in the short statement just made, to which, I own, after all that I have heard since my pamphlet has been published, I am quite unable to anticipate a valid objection.” By now Ricardo must have despaired of his friend, no doubt recalling the advice he had offered just a week earlier: “the point in dispute is whether labour be the correct measure of value, you must not then take the fact for granted, and then offer it as proof of your correct conclusion” (1951-73, IX, 306-8).

As the last comment indicates, Ricardo tried repeatedly to convince Malthus that his argument lacked substance. As to Malthus’s vaunted “principle of compensation,” Ricardo likened it to the case of a “piece of cloth . . . 120 yards in length and . . . to be divided between A and B; it is obvious that in proportion as much is given to A less will be given to B and vice versa. This will be true altho’ the value of the whole 120 yards be £100, £50 or £5.” But here Ricardo raised the telling question: “Is it not then a begging of the question to assume the constant value because the quantity is constant, and because it is always to be divided between 2 persons”? (1951-73, IX, 283; see also pp. 299 and 350-51). Over three months later, after further exchanges concerning the “invariability” of Malthus’s labor-command unit, Ricardo remained convinced that it was Malthus’s intransigence that prevented a meeting of the minds: “I hope you do not suspect me of shutting my eyes against conviction, but if this proposition is so very clear as it is to you, I cannot account for my want of power to understand it. I still think that the invariability of your measure is the *definition* with which you set out, and not the *conclusion* to which you arrive by any legitimate argument” (1951-73, IX, 351-52).

The criticism never found its mark. Four years later, in defending his position against the onslaught it provoked, Malthus acknowledged that “[i]t would, no doubt, be an absurd tautological truism merely to state, that the varying wages of a given quantity of labour will always command the same quantity of labour.” But, he insisted, taking refuge in his definitions, “if it were previously shown that the quantity of labour which a commodity commands represents exactly the quantity of labour worked up in it, with the profits upon the advances, and does therefore really represent and measure those natural and necessary conditions of the supply, those elementary costs of production which determine value; then the truism that the varying wages of a given quantity of labour always command the same quantity of labour must necessarily involve the important truth, that the elementary costs of producing the varying wages of a given quantity of labour must always be the same.” Replying directly to Bailey’s objection that the relationships illustrated in his table could be just as appropriately applied to cloth or to any other commodity, Malthus asked derisively, “Is cloth the universal and main instrument of production? . . . has any one ever thought of calling cloth and profits the elementary costs of production? or has it ever been proposed to estimate the values of commodities at different periods by the different quantities of cloth and profits worked up in them?” ([1827] 1954, 192-94). The answer, of course, is obviously in the affirmative. As we have seen, Ricardo made just that point in his “Notes” on the first statement of Malthus’s position in the 1820 *Principles*, as did J. S. Mill in his review of the revised statement in the *Measure of Value*. Ricardo too raised the point in conjunction with that second statement in his correspondence with Malthus after its publication (1951-73, IX, 380-81).

Bailey: The Absurdity of “Invariable Value”

The author of the only full-length study of Bailey’s work aptly characterized the course of his subject’s reputation as a “steeplechase” career. Dismissed by his reviewer as “logomachy” (though granted third position in the syllabus followed by J. S. Mill’s discussion group) Bailey’s *Critical*

Dissertation ([1825] 1967) elicited surprisingly fulsome praise from Schumpeter, who saw in it, “as far as fundamentals are concerned, practically all that can be said,” making it a work which “must rank among the masterpieces of criticism in our field, and . . . should suffice to secure to its author a place in or near front rank in the history of scientific economics” (Rauner 1961, 2; Schumpeter 1954, 486). Such praise is no doubt a highly subjective judgment. Other readers might be more inclined to view DeQuincey’s characterization of Malthus’s work on population as all the more appropriate to Bailey. He too “took an obvious and familiar truth” and resolutely drew out its inferences, no less “immediate and proximate” but undeniably provocative for they constituted an overwhelming attack on the Classical search for an “invariable” value standard.

The “familiar truth” that lies at the center of Bailey’s argument is the ratio character of value: “it is essential to value that there be two objects brought into comparison.” In this respect, “value bears a resemblance to distance”; just as “we cannot speak of the distance of any object without implying some other object, between which and the former this relation exists, so we cannot speak of the value of a commodity but in reference to another compared with it.” Here is a truism, to be sure; but the weight of Bailey’s critique originated in his readiness to draw the obvious (and “proximate”) inference: “invariable” value is an oxymoron. “It would be an absurdity to suppose that the value of A to B could alter, and not the value of B to A; . . . an absurdity of much the same kind as supposing that the distance of the earth from the sun could be altered while the distance of the sun from the earth remained as before.” Here is the flaw in Ricardo’s supposition that a commodity can serve as an invariable standard if it is produced by unvarying labor: “if the labour in other commodities were increased or diminished, the relations of value between this one commodity and all others would, on Mr. Ricardo’s own principle, be instantly altered.” Hence, Ricardo’s concept of an invariable standard “overlooks one half of the causes concerned in the determination of value” (Bailey [1825] 1967, 4-17).

The criticism is disingenuous for Bailey was quite aware of Ricardo's object in seeking such a standard. "The truth intended to be conveyed by saying that B remains of the same value is that the cause of the altered relation between A and B is in the former and not in the latter; and to determine where the change originated is in fact the whole object of those who endeavour to show what commodities have remained stationary in value and what have varied" (Bailey [1825] 1967, 12). Further, he is prepared to concede that the search for a unit capable of performing this function "would at all events be a rational and might prove a useful inquiry" (127n.). But to characterize such a standard as possessing the quality of "invariable value" is to erroneously treat the value concept as if it "were a positive or intrinsic quality" (11).

This is the "specific error of Mr. Ricardo on the subject of invariable value." Since no commodity can be said to possess invariable value with respect to all others, his standard "would not, as he asserts, serve to indicate the variations in the value of commodities, but the variations in the circumstances of their production. . . . He has in truth confounded two perfectly distinct ideas, namely, *measuring the value of commodities*, and *ascertaining in which commodity, and in what degree, the causes of value have varied*" (Bailey [1825] 1967, 120-22; emphasis in original). Finally, in a statement that must have struck his Ricardian contemporaries as nearly blasphemous, Bailey pointed out that even as a standard against which to locate the source of variations in exchange ratios, "invariableness in the quantity of labour . . . would be of no peculiar service" (128). Any commodity, however variable its embodied labor, will serve the purpose "provided a register were kept of the varying quantities of producing labour required" (250).

Bailey went to some length to demonstrate to his readers that this inappropriate obsession with "invariableness" in a value measure is a "false analogy" with measurement in physical dimensions. In physical measurement, we must apply an instrument of fixed dimension to the object of measure to "obtain knowledge of a fact before unknown," the ratio of the relevant dimension "subsisting between

the object and the instrument we employ.” But in the case of value, “There is no unknown fact discovered by a physical operation.” It is rather simply a calculation of ratios from other known ratios: “if I know the value of A in relation to B, and the value of B in relation to C, I can tell the value of A and C in relation to each other and consequently their comparative power in purchasing all other commodities” (95-6). This is no less true in comparisons across time. Here we encounter another of Bailey’s more provocative expressions for he insists repeatedly that it is “a fundamental mistake” to suggest “that the relation of value can exist between commodities at different periods.” The point is, of course, a valid implication of the principle that value is to be understood strictly as exchange ratios; and, excluding the possibility of forward contracts (a nicety that Bailey did not consider), only contemporary commodities are subject to exchange. Hence, all that is “to be done with regard to different periods is to compare the relation of value subsisting between any two commodities . . . at one period, with the relation subsisting between them at another.” This too is no more than “a mere question of arithmetic” and requires only a common “medium of comparison,” an office which the monetary unit performs quite satisfactorily (113-16; see also chap. 5).⁷

Obvious truths and proximate inferences they may have been, but, adding his own insights and elaborating those of others, Bailey’s strictures clearly struck home in the context of the Classical debate over value. His call to avoid the “singular confusion [that] has . . . prevailed with regard to the ideas of measuring and causing value” ([1825] 1967, vii) itself echoes earlier statements from DeQuincey drawing the like distinction in the latter’s review of Malthus’s *Measure of Value* and in his “Templars’ Dialogues” (DeQuincey 1823, 588; 1824, 558). The criticisms had their effect for the revisions contained in the second *Principles* carefully point out

⁷ Bailey would have similarly objected to our current usage in speaking of the “real value” of monetary magnitudes as expressed in, say, dollars of “constant purchasing power.” Lacking the notion of a price index, he would insist that it is impossible to speak of a “constant” dollar since the dollar’s purchasing power varies with respect to each commodity. Hence, in determining “the state of comfort or luxury” provided by money incomes of a given period, he could envision no alternative but to judge “particular by particular the relation which these incomes bore to commodities” (136). Although our modern price indexes permit us to facilitate that calculation by aggregating those

to the reader that the “labour worked up in a commodity is the principal *cause* of its value,” while that which it “will command is *not* the *cause* of its value, but . . . the measure of it” (Malthus [1836] 1986, 83n).⁸ Of course, the same distinction reappears most memorably in Mill’s thermometer metaphor, itself possibly drawn from DeQuincey (Mill [1848] 1976, 568; *cf.* DeQuincey 1824, 558). Bailey’s observation that value comparisons across time are conducted in commodity ratios, thereby involving no notion of an “invariable” monetary unit, is similarly echoed in Mill’s remark that for such purposes “money, or any other commodity, will serve quite as well as at the same time and place, provided we can obtain the same data,” that being the “data” necessary “to compare with the measure not one commodity only, but the two or more which are necessary to the idea of value” ([1848] 1976, 565). Likewise, Bailey’s insight that the Classicals’ search for an “invariable” standard implies a concept “that would not be invariableness of value, but invariableness of cost, or invariableness in the circumstances of production” reappears in Mill’s observation that “[a] measure of exchange value . . . being impossible [for lack of an aggregation scheme], writers have formed a notion of something, under the name of a measure of value, which would be more properly termed a measure of cost of production” (Bailey [1825] 1967, 249-50; Mill [1848] 1976, 566).

There is, nonetheless, some justice in Malthus’s complaint that the “perseverance with which [Bailey] proceeds gravely to apply his peculiar definition of value to other writers who have defined it differently is truly curious” (Malthus [1827] 1954, 145). To be sure, Bailey could reply that such was precisely his point—to apply his definition to the work of those other authors as a means of revealing and resolving the several “paradoxes” contained in their arguments. In calling attention to the apparent incongruity in DeQuincey’s comment that “[w]ages are at a high real

“particulars,” he would no doubt question the propriety of our usage, noting that if we are to avoid questions of substitution bias or quality change, there can be nothing “constant” about the underlying commodity bundle.

⁸ It must be admitted that we cannot be certain whether this comment originated with Malthus or with the anonymous editor of this posthumous edition since no parallel comment appears in the manuscript revisions.

value when it requires much labour to produce wages; . . . and it is perfectly consistent with the high real value—that the labourer should be almost starving,” Bailey did not need Malthus to tell him that “by real value [DeQuincey] means value in relation to the producing labour.” Bailey’s intent was to resolve the paradox by asking “value in what?” “[I]f corn and labour are both affirmed to be high, [then] they are high in relation to other commodities.” But when “the labourer obtains little corn, labour must be low in relation to corn” (Bailey [1825] 1967, 60-61, quoting DeQuincey 1824, 557; Malthus 1827, 156-57).

It cannot be denied, however, that at certain points Bailey’s uncompromising refusal to countenance even the slightest deviation from his terminological standards led him to some degree of misrepresentation. He accuses Ricardo, for example, of resorting to inconsistency in defining the “value of labour” as determined by the labor embodied in the wage bundle. By this “dexterous turn,” he is said to have “ingeniously” avoided the “evidently absurd” conclusion “that the value of labour depends on the quantity of labour employed in producing it.” There follows a lengthy quotation from the concluding pages of the first chapter of Ricardo’s *Principles* (third edition), which Bailey offers as illustrating “several of the errors” said to arise from a faulty understanding of the value concept. But nowhere is there any recognition that Ricardo’s reference to the labor embodied “value” of the wage bundle serves him in solving his central problem of distinguishing an alteration in labor’s share, which is necessarily associated with an opposing alteration in profits, from a strictly nominal shock to the general price level, which, of course, produces no effect on the profit rate (Bailey [1825] 1967, 50-55; *cf.* Ricardo 1951-73, I, 48-50). Elsewhere, Bailey utterly misrepresents Ricardo’s meaning in section one of his first chapter, characterizing the reference there to Smith’s labor-command unit as instead a reference to the erroneous notion of an intertemporal value measure involving a single element alone (Bailey [1825] 1967, 79-87; *cf.* Ricardo 1951-73, I, 11-20). Finally, it must be admitted that Bailey failed entirely to appreciate the

complication raised by variations in capital-labor ratios. We find him, for example, asserting without hesitation that a “difference in the value of two commodities, which were produced by labour of equal value, would be inconsistent with the acknowledged equality of profits, which Mr. Ricardo maintains in common with other writers” ([1825] 1967, 80). Ricardo, of course, would have denied Bailey’s inference, noting that the presumed value differential would signify nothing more than the compounding of equal rates of profit over different production periods. Clearly Bailey’s critical review of the Classical debate over value was not without its flaws. Nevertheless, it had a cleansing effect, sweeping away a good deal of confusion and sophistry. With its principal insights taken up by Mill, it cleared the way for future generations to more effectively turn their energies to the business of value analysis.

Conclusion

As Bailey affirmed in his reply to his *Westminster* reviewer, words—their precise selection and arrangement—matter (Bailey [1826] 1967, 72-75]. Even what may seem to be the most trivial of questions when expressed by means of distinct and commonly understood conceptual categories—*i.e.*, words—can elicit only confusion and wasted effort when such categories are lacking. There must be a period in the history of any discipline when the efforts of its adherents are directed to a close examination of the nature and expression of the concepts that define its content. This activity, it is true, does not produce “scientific rules,” but neither is it a *mere* dispute about words. It is a necessary precondition for analysis. Yet such is the power of words that they will, even as sophistry, exert a powerful, nearly irremovable hold on the mind. Bailey warned of the “unbounded influence of the chameleon-like properties of language.” Even a false principle “can only tend to perplex the mind of the inquirer by those perversions of language, those distortions of expression, and those circuitous expedients of logical ingenuity, which it unavoidably engenders” ([1825] 1967, vi and 232).

Certainly Malthus's analytical powers fell hostage to those "circuitous expedients of logical ingenuity." He was able to reply to Bailey with little more than derision and denial, insisting, for example, that Bailey had "arbitrarily adopted a meaning of the term value quite unwarranted by the usage of ordinary conversation, directly opposed to the authority of the best writers on political economy, pre-eminently and conspicuously useless" (Malthus [1827] 1954, 144-45). As to Bailey's observation that the search for an invariable standard reveals a confusion between the nature of value and the process of measurement in physical dimensions, Malthus replied with obvious sarcasm, "I was not aware that people were ignorant of this difference" ([1827] 1954, 169). Yet, as we have seen, he continued to insist that the "truism" that a day's wage commands a day's labor reveals the "important truth" of "invariability" in the "elementary costs" of those varying wages.⁹ If such "perversions of language" could mislead and distract his great generation of economists, what better exemplar could be offered modern economists to inspire a due "methodological humility" regarding our own accomplishments

⁹ Having by the time of his *Definitions* (1823), thus abandoned even the slightest pretence of physical dimensions, Malthus denied even the last vestige of physical invariability in his unit, acknowledging that "[a] day's labour . . . is not invariable either in regard to intensity or time," an admission that explicitly contradicted Smith's famous dictum (Malthus [1827] 1954, 226; cf. Smith [1776] 1976, 50). This is excused with the concession (perhaps in response to Bailey's earlier criticism) that the value concept implies "a reference, either expressed or implied, to some place and time." From this he concludes that "because the labour of each place and time measures *at that place and time* the estimation in which a commodity is held, . . . the elementary costs of its production, . . . it must be considered as measuring . . . the values of commodities at these places and times, so as to answer the question,—what was the value of broad-cloth of certain description in the time of Edward III in England?" ([1827] 1954, 222-27). Obviously Malthus has now abandoned even the longstanding claim that a unique standard is necessary for intertemporal measurement since the purpose he describes here could be filled with equal effect by the monetary unit or any other commodity. Evidently Malthus had further misgivings regarding this concession for when he came to incorporate in his second *Principles* this possibility of changes in the physical dimensions of his labor unit, he wrote in his manuscript revisions, "I am willing to allow that the measure is not so entirely satisfactory to my own mind, nor probably so well calculated to make a satisfactory impression on the minds of others, as in those cases where the labour is exactly of the same character," but he retained the standard by default, "as no other object or set of objects will approach to such a measure" (Malthus [1820] 1989, II, 120-121). In the published text of the second *Principles*, these second thoughts were expressed with slightly less diffidence: "here it is probable that the measure will not be considered so satisfactory as in those cases where the labour is exactly of the same character," and "it must be allowed that there is no other way of approximating towards the other great object of a measure of the values of commodities, namely, a knowledge of the desire to possess and the difficulty of obtaining possession of them, . . . than by comparing them with the labour of the country in which they are produced or exchanged, whatever may be its character" (Malthus [1836] 1986, 108-109).

APPENDIX

(Malthus, *Measure of Value Stated and Illustrated*, p. 38)

Table illustrating the invariable Value of Labour and its Results

1. Quarters of Corn produced by Ten Men, or varying Fer- tility of the Soil	2. Yearly Corn Wages to each Labourer, de- termined by the Demand and Supply.	3. Advances in Corn Wages, or variable Produce com- manding the Labour of Ten Men.	4. Rate of Profits under the foregoing Cir- cumstances.	5. Quantity of Labour re- quired to pro- duce the Wages of Ten Men under the foregoing Cir- cumstances.	6. Quantity of Profits on the Advances of Labour.	7. Invariable Value of the Wages of a given Number of Men.	8. Value of 100 Quarters of Corn under the varying Cir- cumstances supposed.	9. Value of the Product of the Labour of Ten Men under the Circumstances supposed.
150 qrs.	12 qrs.	120 qrs.	25 pr.Ct.	8	2	10	8.33	12.5
150	13	130	15.38	8.66	1.34	10	7.7	11.53
150	10	100	50	6.6	3.4	10	10	15
140	12	120	16.66	8.6	1.4	10	7.14*	11.6
140	11	110	27.2	7.85	2.15	10	9.09	12.7
130	12	120	8.3	9.23	0.77	10	8.33	10.8
130	10	100	30	7.7	2.3	10	10	13
120	11	110	9	9.17	0.83	10	9.09	10.9
120	10	100	20	8.33	1.67	10	10	12
110	10	100	10	9.09	.91	10	10	11
110	9	90	22.2	8.18	1.82	10	11.1	12.2
100	9	90	11.1	9	1	10	11.1	11.1
100	8	80	25	8	2	10	12.5	12.5
90	8	80	12.5	8.88	1.12	10	12.5	11.25

* This is an error. Unlike the other entries in the column, this figure refers not to the labor *commanded* by 100 quarters but to the labor units *embodied*—that is, the ratio of 100 to the presumed output per laborer of 14. By the column heading, the correct entry would be the same as that of the first row. Wrigley and Souden (1986, 199) note the discrepancy, describing it as “set in error in the original text.” However, Pullen tells us that a manuscript copy of the table, in Malthus’s hand and identical in all respects to its printed version, was among the 27 loose sheets interleaved among the pages of Malthus’s copy of the 1820 *Principles*. Evidently the error did not originate with the typesetter. See Malthus [1820] 1989, I, xi, xxxvii; II, 92-3.

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