# **Response to Moseley**

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#### Abstract

In "A Marxian reply to Hahnel: The relative explanatory power of Marx's theory and Sraffa's theory," Moseley begins by arguing that I misrepresent Marx. For any like myself, who believe that because we now have linear algebra, and the theorems of Frobenius and Perron to take advantage of, we are able to elaborate a better formal framework for understanding prices and income distribution in capitalism than was available during Marx's time, the past fifty years has become a game of whack-a-mole: whenever anyone rebuts one particular defense of using a labor theory of value framework, a different variation rises in its place.

#### Keywords

Sraffa, Marxist economics, theory of value

### I. Introduction: Whack-a-Mole

In "A Marxian reply to Hahnel: The relative explanatory power of Marx's theory and Sraffa's theory" (Moseley 2021), Moseley begins by arguing that I misrepresent Marx:

Hahnel's interpretation of Marx's theory is the currently popular Sraffian interpretation. However, I argue that the Sraffian interpretation of Marx's theory is fundamentally erroneous for reasons that I discuss at length in my recent book *Money and Totality: Marx's Logical Method in Capital and the End of the "Transformation Problem"* (Moseley 2016). Therefore, I argue that Hahnel's interpretation is a misinterpretation and as a result, his comparison of "Marx's theory" and Sraffa's theory is not a valid comparison. (Moseley 2021)

Whenever someone criticizes what Moseley calls "Marx's theory," Marxist economists invariably rise to object that the criticism is not valid because what was criticized was not actually "Marx's theory," and therefore that what is, in truth *their* particular interpretation of "Marx's theory," stands unrebutted. Over the past half century Ronald Meek (1973), Ira Gerstein (1976), Ben Fine and Laurence Harris (1979), Anwar Shaikh (1977, 1978a, 1978b, 2016), John Weeks (1982), Gerard Dumenil (1980, 1984), Duncan Foley (1982, 1986, 2000), Simon Mohun (1994, 2003, 2004), Andrew Kliman (1996, 1997, 2001, 2007), and Kliman and McGlone (1988, 1999) are only some of the Marxist economists who, like Moseley, have defended their own interpretation of what Marx *really meant to say* in *Capital* and *Theories of Surplus Value*—which

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**Corresponding Author:** Robin Eric Hahnel, American University, 4400 Massachusetts Ave. NW, Washington, DC 20016-8007, USA. Email: robinhahnel@comcast.net Marx wrote during the late 1850s and early 1860s. For any like myself, who believe that because we now have linear algebra, and the theorems of Frobenius and Perron to take advantage of, we are able to elaborate a better formal framework for understanding prices and income distribution in capitalism than was available during Marx's time, the past fifty years has become a game of *whack-a-mole*: whenever anyone rebuts one particular defense of using a labor theory of value framework, a different variation rises in its place.

Because their interpretations and rationales for why we should continue to use a labor theory of value framework to understand prices, profits, and crises are not the same—and indeed disagree and often contradict one another—to respond to every defense of formal Marxian economic theory offered up over the past half century would require many chapters in a very long book, which would require a new "updated edition" every time a new interpretation and defense appeared.

That was not the book I wrote.

Instead, in a very short book intended to be accessible to an audience which did not require a PhD in heterodox economic theory, in chapters 1, 2, and 3 I briefly present what is *commonly taught* as the core features of a Marxian theory of prices, profits, and technological change based on a labor theory of value; and I then compare and contrast that treatment with an equally brief presentation of the basic features of a Sraffian treatment of prices, profits, and technical change (Hahnel 2017a).

The logic of chapters 4, 5, and 6 in my book is admittedly less straightforward. Since Marx's time the economics profession has created separate fields and theories to treat different subjects. Crises are studied as part of macroeconomics as distinct from microeconomics. How to integrate inputs from the natural environment into our analysis, and how to "model" environmental sustainability and instability are now studied in a separate field called environmental economics. And finally, at the philosophical level "normative" economics has long been distinguished from "positive economics." Marx lived and wrote prior to this "division of labor." Whereas, in contrast, both Sraffa himself and many who self-identify as Sraffians confine themselves to what today is called positive microeconomic theory—as Moseley correctly points out. Which is one reason why I wrote the following in the conclusion to my book:

Marx was, is, and will remain a giant intellectual figure in human history. Like Darwin and Freud, Marx changed our understanding of ourselves forever. Moreover, Marx wrote as much, on as many different subjects as Sraffa wrote little, on a narrow range of topics. So if posed as: Choose Marx or Sraffa—choose a major or a minor intellectual figure—the choice is a no brainer! (Hahnel 2017a: 101).

In any case, because Marx covered far more ground than Sraffa, the "compare and contrast" I do in chapter 4 "Theories of Capitalist Crises," chapter 5 "Economy and the Environment," and chapter 6 "Moral Critique of Capitalism" is admittedly different from the more straightforward compare and contrast between Marx and Sraffa in chapters 1, 2, and 3. In chapter 4 on crises I compare the theories of Marx and Marxians who study and write about crisis today to the theories of a number of non-Marxist heterodox macroeconomists who I present as ideological "soulmates" so to speak with Sraffians, at least in the sense that they do not depart from a labor theory of value in their attempt to understand different kinds of crises in capitalism. In chapter 5 I argue that the Sraffian *framework* is far more suitable and helpful than Marx's labor theory of value *framework* for integrating inputs from the natural environment into our analysis. And in chapter 6 I argue that the Sraffian *framework* is also better suited for expressing a moral critique of capitalism today than Marx's labor theory of value *framework*.

Finally, to be clear, there are many who continue to self-identify as Marxist economists but who no longer use Marx's labor theory of value framework. My response to Moseley here, as well as my book, is not aimed at them, but only at those who, like Moseley, continue to cling to some version or another of a Marxian labor theory of value framework as the best way to explain prices, profits, technical change, environmental sustainability, and various kinds of crises in capitalist economies, as well as the best way to argue that capitalists do indeed exploit workers. In contrast to mainstream neoclassical economic theory, what Marxian and Sraffian theory have in common is they identify an *economic surplus* produced in any productive economy, and focus on how this surplus is distributed among its participants. What I argue is that the Sraffian framework is better suited than the labor theory of value framework for analyzing the production and distribution of the economic surplus. In what follows I briefly defend my conclusions in six areas against Moseley's claim to have rebutted them.

#### 2. Prices

Moseley is correct that Sraffian price theory is not a "monetary theory," but simply a theory to explain the *relative prices* at which commodities will exchange in capitalist economies. As best I can tell, interpreting Marx's theory as being fundamentally a monetary theory is the essence of what Moseley believes to be his contribution to a large literature claiming to provide the correct interpretation of what Marx really meant. But regardless of whether Moseley is right or wrong in this regard—and I offer no opinion—whatever else it may do, formal Marxian theory does deploy the labor theory of value to explain what *relative* prices will be in capitalist economies, and how we should understand their formation. And it is *that* explanation I present in brief, and contrast with the Sraffian explanation, concluding that for several reasons the Sraffian treatment is superior. As far as I can see in his review of my book Moseley offers no *direct* rebuttal to any of my reasons for preferring the Sraffian explanation of *relative prices*. To summarize:

The Marxian theory adds an extra step which is unnecessary. Formally, the Marxian explanation of relative prices begins with technologies,  $\{A, L\}$  and a subsistence real wage,  $w_s$ , and proceeds to calculate a vector of labor values, V. But since these V's cannot be the relative prices—because if they were the rate of profit would be systematically different for capitalists in industries with different capital/labor ratios—it has been traditionally conceded by most Marxist economists that the labor values must be "transformed" into a different set of relative prices which Marx called "prices of production," P. And Marx himself clearly believed such a transformation was necessary. Symbolically the Marxian explanation is:  $\{A, L, w_s\} \rightarrow V \rightarrow P$ . The Sraffian explanation of relative prices is more direct. It also begins with technologies,  $\{A, L\}$ , and derives relative prices which will generate equal rates of profit for capitalists in all industries regardless of their capital/labor ratios for *any* real wage,  $w_a$ . Symbolically the Sraffian theory of relative prices is:  $\{A, L, w_a\} \rightarrow P$ .

No reason any Marxist has given to justify **why** the extra step of calculating labor values is worth taking stands up to scrutiny: Before citing Occam's razor and declaring discussion closed—as many Sraffians do—I go on in my book to consider the possibility that the more circuitous route may have some advantage because it helps us understand or learn something important which the more direct route does not. I specifically rebut four different arguments which different Marxists have made over the last half century to justify the more circuitous route to explaining relative prices in capitalism departing from labor values.<sup>1</sup> Moseley offers no direct rebuttal to my reasons for rejecting all four reasons which have been offered by different Marxists for not applying Occam's razor. Nor do I believe Moseley presents a new reason of his own for what a detour through labor values adds to our understanding of *relative* prices and their formation in capitalism.

<sup>&</sup>lt;sup>1</sup>I present the four different justifications Marxists have offered on pages 14–15 of my book. I explain why the first two reasons do not hold up under scrutiny on pages 15–19. And I explain why the second two reasons are not convincing on pages 32–34. I refer readers to those pages in my book rather than take up space here. But the important point is that Moseley makes no attempt to respond to my arguments, but simply ignores them.

### 3. Profits

I presented a similar argument with regard to profits: (1) Labor values are unnecessary to explain the origin of profits. (2) Introducing the unnecessary concept of labor values tells us nothing true and important about what is going on, but only serves to potentially mislead us about why and how capitalists get profits.

Labor values are unnecessary: The fundamental Sraffian theorem (FST)—if and only if dom( $\mathbf{A}+\mathbf{bL}$ ) < 1 is r > 0—explains the origin of profits without the intermediary of labor values: In words the FST says: If and only if capitalists deprive workers of all the goods workers produce, and there is therefore a surplus of goods left over after wages are paid, will the rate of profit be positive. Morishima's fundamental Marxian theorem (FMT)—if and only if (1–**Vb**)/**Vb** > 0 is r > 0—explains the origin of profits using labor values: In words the FMT says: If and only if a ratio defined in terms of labor values which Marx called "the rate of exploitation" is positive, will the rate of profit be positive.<sup>2</sup>

*The FMT is misleading*: The FMT is commonly interpreted as saying that capitalists get profits from "exploiting" only one of the "inputs" they use in production by systematically paying less for "labor power" than its "value," whereas capitalist generally pay for all other inputs according to their "values." But profits have nothing to do with exploiting one input rather than another, as John Roemer succinctly explained:

One cannot maintain, as is frequently done, that labor power is that one special commodity that mysteriously produces more value than is embodied in it, and hence its exploitation is the sole cause of profits. For, as an alternative to labor value, one could choose corn to denominate value, defining the embodied corn values of all commodities, and the following would be true: The economy is productive in the sense of being able to produce a surplus if and only if corn is exploited. (Roemer 1981: 52)

In other words, the notion that there is one special input in production whose "exploitation" is the source of capitalist profits is arbitrary since any basic input can be chosen to tell the same story. Capitalists cease to buy *every input* they use—not just the labor they hire—as soon as buying more of the input fails to increase their revenues *by more* than the amount they pay for it. Put differently, a fundamental characteristic of capitalism is that capitalists insist on receiving the going rate of profit on every input they use, not just the labor they hire. And it is those who fail to understand this who are deceived. Moseley offers no cogent rebuttal to these arguments.

## 4. Technological Change

Marx's own belief in his labor theory of value led him down a false path with regard to the effects of technological change. Based on his belief that exploitation of labor, but not of non-labor inputs, was the source of profits, Marx speculated that when a capitalist discovers a capital-using, labor-saving (CU-LS) change which lowers his production cost at the prevailing prices and wage rate, and therefore adopts it, and when his competitors follow suit and adopt it as well to avoid being competed out of business; collectively they may witlessly reduce the rate of profit when prices adjust to the new conditions of production because, in Marx's view, they will have

<sup>&</sup>lt;sup>2</sup>Morishima successfully formalized the "rate of exploitation" as Marx described it. I doubt he would appreciate being dismissed as Moseley does: "Morishima's Fundamental 'Marxian' Theorem does not in fact apply to Marx's theory." Moseley also does not seem to realize that if what he says about the transfer of surplus value were indeed the case, capitalists in industries with different capital labor ratios, or in Marxist terms different organic compositions of capital, would necessarily earn different rates of profit: "Constant capital (equal to the price of the means of production) is transferred directly to the price of the output, and no additional value (and hence no surplus value) is produced by this transfer."

collectively reduced their use of the sole input, labor power, which was laying their golden eggs. What Marx was then at pains to explain was why capitalists would do such a self-destructive thing. His answer was that if they were capable of acting collectively in their class interest they would not. But Marx pointed out, in this case correctly, that an individual capitalist who discovers a new CU-LS technology which lowers production costs would have every incentive to adopt it, and if his competitors did not follow suit they would, indeed, be competed out of business. For Marx, competition among capitalists was the reason they might witlessly act collectively like the proverbial lemmings.

Using the labor theory of value Marx calculated that the rate of profit in the economy, r(M), will be equal to the rate of exploitation, S/V, times one minus the organic composition of capital, C/ (C+V): r(M) = [S/V][1-C/(C+V)]. Mosely disputes my claim that no matter how much C/ (C+V) increases and approaches one, and therefore [1-C/(C+V)] approaches zero, it is always possible for S/V to increase sufficiently to prevent r(M) from declining. Mosely says that because there is a limit to the number of hours in the working day there is a limit to how much the quantity of surplus value, S, can increase: "It gets harder and harder to compensate for an increase in constant capital per worker by increasing surplus value per worker because there are only so many hours in the working day." But S/V is not the quantity of "surplus value per worker," it is the *ratio* of surplus value to variable capital per worker, if you will. And since V can approach zero in the limit—which is indeed how C/(C+V) approaches one—it is possible for S/V to rise as fast as need be for any increase in C/(C+V) to prevent r(M) from falling even though S may have a limit.

Moreover, Marx's rate of profit, r(M), is *not* the uniform rate of profit in the economy. It would be the rate of profit if all goods sold at their values. But since Marx realized that goods must actually sell at their prices of production rather than their labor values, the r(M) Marx formulated is, at best, merely indicative of what the effects of technological change on the uniform rate of profit in the economy might be. Equipped with mathematical tools and theorems unavailable to Marx in the mid nineteenth century, in 1961 Nobu Okishio formulated and analyzed what the actual uniform rate of profit in a capitalist economy would be, and thereby put the theory/hypothesis "for a tendency for the rate of profit to fall" (TRPF) to rest. Okishio proved that *any* technological change which reduces production costs at current prices—including any CU-LS changes—and therefore any technological change that would ever be adopted and imitated, will necessarily either increase or leave unchanged *the uniform rate of profit* in the economy after prices adjust, provided the real wage rate remains the same.<sup>3</sup>

I explain why attempts by a number of obdurate Marxists to weasel out of this conclusion and salvage a TRPF based on adoption of CU-LS new technologies all fail on pages 51–55, and need not repeat those arguments here. Moseley's claim that Shaikh (1980) successfully rebutted Roemer's extension of Okishio's theorem to the case of fixed capital in Roemer (1979) is not persuasive. Shaikh's rebuttal is an example of retroactively "moving the goal line" regarding what competition requires of capitalists when the other team (Roemer in this case) has scored a touchdown.

In conclusion, Moseley's own argument to the effect that a limit on how much S can rise will cause r(M) to fall when capitalists adopt new CU-LS technologies is logically flawed on its own terms, and is irrelevant since r(M) is not the uniform rate of profit in the economy in any case. Nor does Moseley offer any compelling reason to abandon Okishio's theorem. Shaikh (1980) failed to rebut Roemer's extension of the theorem to the case of fixed capital. And Moseley's own argument about turnover time is also not persuasive. Any competent treatment of fixed capital must treat turnover correctly since, by definition, fixed capital is capital that requires more than one time period to turnover. Neither Roemer nor Sraffians make what would be rookie mistakes in this regard, as Moseley claims they have.

<sup>&</sup>lt;sup>3</sup>In short, Okishio proved that when new prices emerge after capitalists adopt CU-LS technologies, capitalists are *not* in any danger of "witlessly" reducing their rate of profit, and generating a "crisis of capitalism."

### 5. Crises

The notion that adoption of new CU-LS technologies can/will lead to a TRPF and thereby a crisis of capitalism has now been refuted, and every attempt to save it, including Moseley's, has been refuted as well. Moreover, if there is no reason to believe that an increase in the organic composition of capital causes a TRPF and crisis, there is also no reason to believe that "necessary conditions for recovery from a crisis" require a "reduction in the composition of capital" as Moseley asserts.

Moseley's discussion also fails to offer any substantive criticism of my argument that all of the *useful insights* Marx made about crises in capitalism—(1) monetized exchange makes crises possible, (2) the capitalist credit system makes crises far more likely, (3) under consumption crises are possible, although not inevitable, and (4) profit squeeze crises are also possible, although not inevitable—do not require a labor theory of value to articulate.

Finally, I point out that whereas capitalists will not cause a TRPF when they choose what new technologies to adopt and reject, they can cause a different problem. Adam Smith hypothesized that what we might call a second invisible hand is at work in capitalism. Namely, that under standard assumptions if, and only if, a new technology increases economic productivity will it be adopted by profit maximizing capitalists. However, using a Sraffian framework John Roemer proved that Smith's second invisible hand works only if the uniform rate of profit in the economy is zero. If, on the other hand, the rate of profit is positive, Roemer proved: (1) Profit maximizing capitalists will commit "errors of omission." They will sometimes fail to implement a capitalusing, labor-saving (CU-LS) new technology even though it increases economic productivity; (2) They will commit "errors of commission." They will sometimes implement a capital-saving, labor-using (CS-LU) new technology even though it decreases productivity; and (3) the higher the rate of profit in the economy the more errors of omission and commission profit maximizing capitalists will make (theorem 4.9 in Roemer 1981). In other words, unlike a TRPF which profit maximizing capitalists cannot cause, capitalists will sometimes make socially counterproductive decisions about when to adopt and when to reject new technologies as they become available. In his review Moseley said: "Hahnel is quite wrong that Marx's theory cannot explain this inefficiency in capitalists' choice of technology. Marx was the first to explain this inefficiency in capitalism a long time ago." If this is true, I apologize and am happy to stand corrected. What I know is that Roemer's proof and explanation for the intuition behind the result is clear; and I do not recall anything equally cogent about this in Marx.

### 6. The Environment

I leave the debate about whether or not the Sraffian framework provides a more convenient way than the labor theory of value to incorporate rent into our analysis of income distribution and prices, as well as whether Marx did or did not improve on Ricardo's theory of rent to another day,<sup>4</sup> to focus instead on economic growth and environmental sustainability. Like many Marxists, Mosely insists that the fact that capitalists seek to maximize profits and competition for profits propels economic growth means that environmental destruction is inevitable unless we replace capitalism with socialism before it is too late.

I want to replace capitalism with participatory socialism as fast as anyone—for a whole host of reasons (see Hahnel 2012 and 2021)! I also do not dispute, but indeed insist on the fact that to date capitalism has inflicted great harm on the natural environment, and is now within mere decades of triggering cataclysmic climate change. I have also argued at length that *it is not easy* to prevent capitalism from abusing the natural environment, and it would be much easier to protect the environment if we had a participatory socialist economy instead (see Hahnel 2011). But

<sup>&</sup>lt;sup>4</sup>Suffice it to say I dispute Mosely's arguments to the contrary.

I want to avoid facile arguments which cannot be supported about capitalism and the environment, because they do not serve either the cause of reversing environmental deterioration, nor the cause of replacing capitalism with socialism for that matter.

The environment now hosts five times more people than when Marx lived. And the amount of "pressure" the consumption each of us puts on the environment on average by using up scarce environmental resources and releasing pollutants is many times greater today than in Marx's day as well. This means the number of hours of unpleasant work it takes to produce different goods and services is a *smaller fraction* of the opportunity cost of producing them today than back when Marx lived in a largely "empty world," because the opportunity cost of using up scarce inputs and services from the environment is a larger fraction of the total opportunity cost of producing goods now than it was in the past. In today's increasingly "full world" it is essential for our intellectual framework to facilitate measuring not only the amount of hours of unpleasant labor required both directly and indirectly to produce different kinds of goods and services, but the amount of different kinds of scarce *environmental throughput* used up both directly and indirectly to produce them as well.

In my book I show how the Sraffian framework allows us to measure both, whereas the labor theory of value *by design* measures only the former. I also show how using a Sraffian framework we can rigorously measure quantitatively both changes in overall labor productivity *and* changes in environmental "throughput efficiency" when new technologies are introduced. And I show how this allows us to rigorously define sufficient conditions for environmental sustainability, and thereby dispel common confusions about the relationship between economic growth and environmental sustainability. Introduction of new technologies affect both labor productivity and throughput efficiency by as much as the sum total of new technologies adopted increase environmental throughput efficiency by as much as they increase labor productivity, they put no greater strain on the natural environment. This insight, or dare I call it "truth," is extremely important as humanity struggles to achieve *two* goals going forward: (1) increasing how much we benefit from the goods our efforts and sacrifices produce, and (2) protecting the natural environment from further deterioration. Most importantly, this means that economic growth is not *necessarily* incompatible with environmental sustainability as some Marxists and ecological economists whom I cite claim—irrespective of what kind of economic system we have.

The trick is to make sure that increases in labor productivity—getting more output from an hour of work—are matched by increases in throughput efficiency—getting more output from scarce inputs from the natural environment. And while it will be harder to make this happen in capitalist economies than in socialist economies, since we are not on the verge of replacing capitalism with socialism it is fortunate that this *can* be done under capitalism.

Moseley complains that I give no example of new technologies that increase throughput efficiency, and refers to them as "completely unreal and hypothetical." So, let me give one very real example: we now know how to transport ourselves in electric cars as well as gasoline powered cars. And we now know how to produce electricity with hydro, wind, and solar power as well as coal, oil, and natural gas. If these technologies are adopted, carbon throughput efficiency will increase tremendously, and humans can continue to transport ourselves conveniently and also decrease carbon emissions from the transportation sector. Moreover, there are well known policies which can make this happen *under capitalism*. Of course the urgent task at hand is to make the transition happen as quickly as possible. And the problem is that we must mobilize a political coalition powerful enough to force governments to adopt these policies despite opposition from the powerful capitalist fossil fuel industries. But to imply that this is somehow pointless, or impossible under capitalism is wrong, environmentally irresponsible, and only undermines the credibility of those who claim it is impossible.

### 7. A Moral Critique of Capitalism

Most people believe Marx made the boldest moral criticism of capitalism anyone ever has namely that capitalism is based on, indeed synonymous with, the exploitation of labor. If you ask most people about what Marx said, that is what they would tell you. And he did say that! But not in the way most people think.

What Marx argued forcefully in *Capital*, and Morishima finally proved as what came to be known as the fundamental Marxist theorem in 1961, is that if and only if something Marx defined and called "the rate of exploitation" is positive can capitalist profits be positive. But Marx's rate of exploitation has no moral implication *per se*, and indeed Marx himself was at pains not to draw any moral conclusions regarding his rate of exploitation. Marx called S/V, or more precisely (1-Vb)/Vb, the "rate of exploitation," and just "let it hang out there," so to speak, for people to draw their own conclusions. But I think most Marxist scholars would back me up when I speculate that if we could go back in time and ask Marx if a positive rate of exploitation is necessarily wrong, evil, unjust, or immoral, Marx would insist he had made no such claim. Put differently, according to most Marxist scholars, Marx eschewed making a moral critique of capitalism.<sup>5</sup>

It is easy to turn the FMT into a moral critique of capitalism. All one must do is argue that it is immoral when it takes less than an hour both directly and indirectly to produce the bundle of goods workers are able to buy with the wage they are paid for an hour of work. But it is also just as easy to turn the FST into a moral critique of capitalism. All one has to do is argue that it is immoral when capitalists, who do no work, keep some of the goods the workers they hire produce. And yes, contrary to what Moseley said, I *do* propose that Sraffians use the word "exploitation" to describe what is going on when capitalists "deprive" employees of some of the goods they produce.<sup>6</sup> So once again, the labor theory of value, and the FMT expressed in terms of labor values, are neither sufficient nor necessary to make a powerful moral critique of capitalism. A Sraffian framework and the FST provide a more direct way to make clear that capitalist profits derive from treating their employees in a way that cannot be morally justified, i.e. that capitalists *exploit* their workers.

#### 8. Conclusion

To put it succinctly and bluntly—and at risk of oversimplification—in *Radical Political Economy: Sraffa versus Marx*, I present a point-by-point case that it is past time to consign formal labor theory of value Marxism to the dustbin of intellectual history. Marx was an intrepid and brilliant nineteenth century explorer who challenged conventional thinking about capitalism using the intellectual tools available to economists in his time. With better tools now available we are now able to confirm and demonstrate many of Marx's conclusions in more rigorous and compelling ways. In some regards we are also now able to demonstrate that some of Marx's hypotheses or conjectures were mistaken and/or misleading.

A formulation of the Sraffian "framework" which takes full advantage of advances in linear algebra theory is more suitable than the labor theory of value framework available to Marx in the

<sup>&</sup>lt;sup>5</sup>This is a philosophical issue I don't wish to dwell on. But I do believe it is accurate to say that providing an explicitly *moral* critique of capitalism was "just not Marx's *thing*." On the other hand, it most certainly is "my thing," and is where I believe criticism of capitalism should begin. Moreover, I have called on fellow Sraffians to come down off the fence, and take a moral stand along with me.

<sup>&</sup>lt;sup>6</sup>I review and rebut the various rationales offered in defense of the moral legitimacy of capitalist profits on pages 83–88. I go into greater depth criticizing these rationales in chapter 3, "Producers and Parasites," in Hahnel (2017b), as well as in Hahnel (2020). And for the record, I am happy to state the accusation as "capitalists *steal* some of the goods their employees produce" if anyone finds the wording "capitalists *deprive* their employees of some of the goods they produce" too genteel.

nineteenth century to frame and analyze relative price formation, the origins of profits, technological change, economic crises, environmental sustainability, and a moral critique of capitalism. And those like Professor Moseley who insist on clinging to the labor theory of value framework only diminish the impact today of important insights Marx was the first to reveal, and continue to perpetuate some misconceptions where we now know better.

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