

A Rejoinder to Robert Paul Wolff

by Andrew Kliman, May 10, 2014

(Note: this is a corrected version of the rejoinder.
The uncorrected version was also published on May 10.)

In the interests of quick communication, I am writing this rejoinder alone, and speaking for myself alone. What follows does not necessarily reflect the views of Chris Byron or Alan Freeman, co-authors of [the piece published yesterday](#) to which [Robert Paul Wolff has now \(already!\) responded](#).

First, I want to thank him for the graciousness and the seriousness of his rejoinder. This is not something we are accustomed to, not by a long shot. In particular, his rejoinder stands in marked contrast to the way in which Sraffian and physicalist-Marxist economists have engaged (and failed to engage) with contributions by proponents of the temporal single-system interpretation of Marx's value theory.

Wolff claims that we "made a little mistake" in our counterexample, that this mistake causes the counterexample to violate a premise of his argument, and that we have therefore "failed to refute the claims I actually made in my book and essay."

It definitely was *not* a mistake. We discussed at great length how exactly to interpret the premise in question. This was the main factor that delayed our response to Wolff's blog post. In the end, we decided to interpret the premise strictly and literally. Wolff now says that this was a mistake. My response is that his alternative reading is self-contradictory.

The premise is contained in point 1 of [his original blog post](#), which reads as follows:

1. So long as the system as a whole produces some sort of physical surplus in each cycle over and above what is required to run the system for another year, it is mathematically necessary that the iron value of a unit of iron will be less than one unit of iron, that the corn value of one unit of corn will be less than one unit of corn, that the X-value of one unit of X will be less than one unit of X for any X that is a required input in to all lines of production, directly or indirectly. In order for this to be true, it is not necessary that there be a surplus of X in the system each year. If we are calculating iron values, it is certain that the iron value of a unit of iron will be less than 1 even if there is no surplus of iron itself produced in the system.

We interpreted "So long as the system as a whole produces *some sort* of physical surplus in each cycle over and above what is required to run the system for another year" (emphasis added) to mean that "there is a physical surplus of *at least one* produced commodity." Wolff now tells us that his phrase "over and above what is required to run the system for another year" means that there must be a physical surplus of *every* produced commodity in *every* cycle of production. Why? He says that if there is not a physical surplus of *every* produced commodity in *every* cycle

of production, then the economy hasn't produced "what is required to run the system for another year." The economy "will, in fact, be in a death spiral. It will not be a self-reproducing system."

Below, I will deal with this last claim, which isn't correct. But here my point is that Wolff's interpretation of his premise is self-contradictory. On the one hand, the premise requires that there be a physical surplus of every produced commodity in every cycle of production. On the other hand, Wolff's original statement of the premise says explicitly that this is *not* a requirement: "In order for this to be true, it is not necessary that there be a surplus of X in the system each year." X is one of the produced commodities, and "it is not necessary that there be a surplus of" it each year.¹ So it is both necessary and unnecessary that there be a physical surplus of X in every cycle of production. This is self-contradictory.

Thus, given Wolff's *actual, original premises, interpreted in a manner that makes them internally consistent*, our counterexample disproves his claim that his physicalist model shows that total profit must be positive if total surplus X-Value is positive.² The larger claim in which this is embedded—the claim that, if one wishes to show that "capital rests on the exploitation of the working class," it is possible (and necessary) to do so without Marx's own exploitation theory of profit—fails as well.

But now we are being made to disprove a moving target. Wolff originally stipulated that there be some sort of physical surplus over and above "what is required to run the system for another year." Now he objects to our counterexample on the grounds that "[e]ven if the workers just live on Botox injections, there are not enough Gummi Bears to operate the system *at the same level* in the next cycle" (emphasis added). The requirement that the system operate next year (and the year after, and the year after that, ...) at the same level it operated this year is *indescribably more stringent* than the simple requirement that that the system be able to operate for another year. After all, real-world capitalism has continued to operate from year to year, despite the Great Depression, the Great Recession, and other events that have kept it from operating *at the*

¹ X is the commodity that serves as the measure of value. In our counterexample, X was Botox, and there was a physical surplus of it. But X could equally well have been Gummi Bears, in which case we would have produced a counterexample that Wolff specifically allowed, one in which there was not a surplus of X in every year. If we make Gummi Bears the measure of value, its per-unit value remains 1, and the per-unit values of Botox and labor will still both equal 1. The surplus-value will be the same as in the original example (except that it will be surplus Gummi-Bear-Value rather than surplus Botox-Value). The only changes we need to make, in order to get the exact same numerical results, are to the prices in the two cases on p. 5 of our original response. In the first case, the prices of Gummi Bears and Botox will now be 1 and 29/30, respectively, rather than 1.05 and 1. In the second case, the prices will now be 1 and 31/30, respectively, rather than 0.95 and 1.

² If Wolff were to insist on an internally inconsistent interpretation of his premises, on which it is both necessary and unnecessary that there be a physical surplus of X in every cycle of production, we could not disprove his claims in a formal sense, since absolutely every possible conclusion about everything is compatible with self-contradictory premises. But his argument would be absurd.

same level year in and year out. It has never, ever, produced the exact same amounts of each and every thing in successive years.

Economic crises are not the only reason it has not done so. As Alan Freeman has continually stressed for two decades, reproduction of an economy, even in normal times, doesn't take place by producing the exact same amounts of each and every thing each year. For example, as the economy shifted from one that produced documents on typewriter to one that produces them with computers and printers, what we had for a considerable time was a physical deficit of typewriters. More typewriters were being used as inputs (i.e., to produce documents) than were being produced as outputs. *Yet capitalism was not "in a death spiral" on that account.*

The following simple physicalist model, adapted from pp. 181-2 of my book, [*Reclaiming Marx's "Capital": A Refutation of the Myth of Inconsistency*](#), is an example of an economy that is clearly not in a death spiral. Over every two-day period, there is a physical surplus of *both* produced commodities. Yet total profit is never positive even though total surplus X-Value is always positive.

Apples (good A) and broccoli (good B) grow on their own. Workers are needed to harvest the output, but no other inputs are needed. The physical data of Table 1 are based on the following assumptions. The daily real wage (physical wage) is 0.4999 lbs of apples and 0.4999 lbs of broccoli per worker. Workers are paid at the end of the day. One day of labor is needed to harvest one pound of each product. On Day 1, four workers pick apples and two workers harvest broccoli, while on Day 2 the figures are reversed. The capitalists, who own the land, have an initial stock of at least one lb of broccoli (acquired through their own labor); given this assumption, the necessary exchanges can take place.

Even though there is a negative surplus of one good in the economy as a whole on both days, the economy reproduces itself over the two-day period. More than enough apples are produced *and* more than enough broccoli is produced, to pay the workers the apple-and-broccoli wages they need in order to return to work on Day 3, etc,

Table 1

	Industry	Labor	Output	Real Wages	Physical Surpluses
Day 1	A	4	4A, 0B	1.9996A, 1.9996B	2.0004A, -1.9996B
	B	2	0A, 2B	0.9998A, 0.9998B	-0.9998A, 1.0002B
	Total	6	4A, 2B	2.9994A, 2.9994B	1.0006A, -0.9994B
Day 2	A	2	2A, 0B	0.9998A, 0.9998B	1.0002A, -0.9998B
	B	4	0A, 4B	1.9996A, 1.9996B	-1.9996A, 2.0004B
	Total	6	2A, 4B	2.9994A, 2.9994B	-0.9994A, 1.0006B
Days 1 + 2	A	6	6A, 0B	2.9994A, 2.9994B	3.0006A, -2.9994B
	B	6	0A, 6B	2.9994A, 2.9994B	-2.9994A, 3.0006B
	Total	12	6A, 6B	5.9988A, 5.9988B	0.0012A, 0.0012B

Let apples be the measure of value. The per-unit value of apples is therefore 1. Since one labor-day is needed to produce a pound of apples, the per-unit apple-value of labor is therefore 1 as well. Thus the per-unit apple-value of the labor need to produce a pound of broccoli is also 1, so the per-unit value of broccoli also equals 1.

Total surplus apple-value, the total apple-value of the two total-economy physical surpluses, is therefore $(1 \times 1.0006) + (1 \times -0.9994) = 0.0012$ on Day 1 and $(1 \times -0.9994) + (1 \times 1.0006) = 0.0012$ on Day 2.

Total physicalist profit is the total price of the physical surpluses. Since apples are the measure of value, their per-unit price is 1 on both days.

Assume that the price of broccoli is 1.0013 on Day 1. Then total physicalist profit is $(1 \times 1.0006) + (1.0013 \times -0.9994) = -0.00009922$... on Day 1. Assume that the price of broccoli falls to 0.9987 on Day 2. Then total physicalist profit is $(1 \times -0.9994) + (0.9987 \times 1.0006) = -0.00010078$... on Day 2.

So there is negative physical profit each day, even though total surplus apple-value is positive each day *and* even though this economy is not in a death spiral.

This example shows, once again, that physicalist models are incompatible with the exploitation theory of profit. We see that such models imply that positive surplus X-value (“labor-value” or “apple-value” or “broccoli-value,” etc.) *does not* guarantee that profit exists. Hence, they imply that positive surplus X-value, exploitation, is not the exclusive source of profit.

But what about Wolff’s case, in which there is a positive physical surplus of every produced commodity in *every* cycle of production (every day, every hour, every minute, ...)? In that case, physicalism implies that positive surplus X-value and positive physicalist profit *happen to coexist*. But even in this case, physicalism continues to imply that positive surplus X-value does not guarantee that profit exists, so that exploitation is therefore not the exclusive source of profit. What guarantees that profit exists is not positive surplus X-value alone, but positive surplus X-value *in conjunction with* the barely imaginable, exceptionally stringent, and wholly unrealistic restriction that there is a positive physical surplus of every produced commodity in every cycle of production. It is clearly this latter restriction, not the positive surplus X-value, which does all the work.

If this is not 100% clear, imagine that I said that I can always kill a flock of sheep just by putting a curse on them (provided that I also feed them all arsenic). And lo and behold, every time I put a curse on a flock of sheep (and feed them arsenic), the whole flock dies. The curse and the death of the flock *happen to coexist* in every case. But this does not mean that my cursing the sheep guarantees that the sheep will die. What does guarantee that they will die is not the curse alone, but the curse *in conjunction with* the arsenic. And it is clearly the arsenic that does all the work.