All Value-Form, No Value-Substance: Comments on Moseley's New Book, Part 13

Andrew Kliman, January 19, 2017

Fred Moseley claims that, on his "macro-monetary" interpretation of Marx's value theory, prices of production are determined on the basis of quantities of money capital and labor-time that are "givens" (i.e., taken as data), not on the basis of given physical quantities. In this part of my series of comments on his recent book, I will explain why this claim isn't true, and respond to a recent attempt by Moseley to defend the claim against my critique.

I. How Moseley's Prices of Production are Actually Determined

Marx's *own, original* theory certainly does state that prices of production are determined on the basis of given quantities of money capital and labor-time. But this is not true on Moseley's interpretation, because his interpretation is simultaneist. That is, his prices of production require that per-unit input and output prices be equal, and this equality in turn implies that the per-unit prices are simultaneously determined on the basis of given physical quantities.

Furthermore, the simultaneous determination of the per-unit prices is *logically prior* to the determination of his quantities of money capital. Moseley simply doesn't have any quantities of money capital to take as "given" in the absence of the *prior determination* of the per-unit prices. For example, consider a constant capital of $30,000. Why does it equal this amount and not another amount? The answer is that three machines were purchased, and their per-unit price was $10,000. The physical quantity (three machines) and the per-unit price ($10,000) come first, and the aggregate quantity of money capital is then determined on their basis, as a result. (It makes no sense to say, conversely, that the "given" constant capital of $30,000 and physical quantity of three machines determine the price to be $10,000 each.)

Hence, Moseley is wrong when he claims that his (aggregate) prices of production are determined without regard to physical quantities, on the basis of given quantities of money capital and labor-time. His actual causal sequence of determination is this:

(1) The magnitudes of his per-unit prices are determined by (a) physical quantities, (b) his stipulation that per-unit input and output prices must be equal, and (c) the stipulation of a particular "normalization condition" needed to obtain "absolute" rather than "relative" prices.

(2) The aggregate quantities of money capital are then determined on the basis of the per-unit prices and the physical quantities (e.g., $10,000 per machine times three machines equal $30,000).

(3) *Finally*, after all that, the aggregate prices of production are determined on the basis of quantities of labor-time and *derived—not given—*quantities of money capital that have been determined by physical quantities and simultaneously determined per-unit prices.

1

II. Moseley's Nonexistent Prices of Production

Moseley has recently denied this. He has argued that per-unit input and output prices can be equal even if the prices have not been simultaneously determined on the basis of physical quantities. The equality of input and output prices might be a property of the *actual data.* And that is exactly what he assumes. So his equality of input and output prices does not result from simultaneous valuation of prices on the basis of physical quantities:

> Kliman argues that, because unit input prices = unit output prices in my interpretation, this means that they must be determined simultaneously. But that is not true. Simultaneous determination i[s] not the only reason that unit input and output prices are equal. Another reason is that the economy is assumed to be in long-run equilibrium. No matter how unit prices are determined, if the economy is in long-run equilibrium, then unit input prices = unit output prices. …
>
> So unit input prices = unit output prices in my interpretation because the economy is assumed to be in long-run equilibrium, not because of simultaneous determination. [Moseley 2017]

One problem with this response is that it leaves Moseley without a general theory of prices of production. He now has a theory only for the special case in which input and output prices just happen to be equal (i.e., the case of static equilibrium, which he calls "long-run equilibrium"). This is an event that occurs with *zero probability.*

In every other case—that is, in *virtually all* cases—the actual quantities of money capital that are advanced are determined on the basis of input prices that do not equal output prices. If Moseley were a temporalist, he could use these actual quantities of money capital as "givens" (data) to determine prices of production. But he rejects temporalism, so his prices of production cannot be determined in that manner. The only other alternative is to use physical quantities and simultaneous valuation to determine the prices of production, but he allegedly rejects that option as well. Hence, in virtually all cases, he has no theory of the determination of prices of production. In other words, his prices of production *do not exist.*

This leads to a second problem: Moseley's response is an implicit rejection of Marx's view (as well as the view of Smith, Ricardo, etc., etc.) that market prices in a competitive economy fluctuate around prices of production. As I noted in Part 11 of this series of comments on Moseley's recent book,

> Leaving aside monopoly and similar complications, [commodities] exchange at market prices that stand above or below their prices of production. But they can exchange at market prices that stand above or below their prices of production only if they *have* prices of production—that is, only if these prices of production *exist*. [Kliman 2016, p. 8; emphases in original]

Thus, because virtually all cases are ones in which Moseley's prices of production do not exist, he also lacks a theory to explain the fluctuations in market prices. They obviously don't fluctuate around nonexistent prices of production. They just fluctuate, period.

Now, I anticipate that I will be told that his market prices fluctuate around the zero-probability static-equilibrium prices. My response is twofold.

First, Moseley cannot coherently posit such a line of defense, because he supposedly rejects the use of physical quantities and simultaneous valuation to determine his static-equilibrium prices. To see this, consider the following two-sector economy, in which the actual money capital advanced in each sector in each period is $100. Each sector also produces one unit of physical output in each period, so its per-unit price and its total price are the same.

Table 1

Period	1	2	3	4	5	6	7	8
Sector 1								
Profit	18.33	18.46	21.09	21.23	18.16	21.41	18.52	19.84
Price	118.33	118.46	121.09	121.23	118.16	121.41	118.52	119.84
Rate of profit	18.3%	18.5%	21.1%	21.2%	18.2%	21.4%	18.5%	19.8%
Sector 2								
Profit	21.83	22.02	19.05	18.55	22.30	18.38	21.71	19.74
Price	121.83	122.02	119.05	118.55	122.30	118.38	121.71	119.74
Rate of profit	21.8%	22.0%	19.0%	18.6%	22.3%	18.4%	21.7%	19.7%

What are the magnitudes of the "long-run equilibrium" prices around which the above prices may or may not be fluctuating? Moseley has no idea, since he has no physical input data with which to compute them. And in any case, he (allegedly) rejects the use of physical quantities and simultaneous valuation to determine the per-unit input prices that would equal the per-unit output prices. So even if the physical input data were specified, he would still have no idea.

Furthermore, the *actual* monetary data above give him no information whatsoever about the magnitudes of his "long-run equilibrium" prices. He knows that the *actual* magnitude of the money capital advanced is $100 in each period, but these capital advances are based on *actual* prices; the capital advances based on his "long-run equilibrium" prices might be very different. And if they are very different, then the amounts of profit associated with his "long-run equilibrium" prices will also be very different from the *actual* profits given above. And so on.

Thus, as I said above, Moseley has no way of explaining the fluctuations in the actual market prices. They don't fluctuate around any actual prices of production—based on actual capital advances and actual profits—since he has no such prices of production. And the actual market prices cannot be said to fluctuate around any "long-run equilibrium" prices, since he has no idea what such prices are. They might well be consistently much higher or consistently much lower than the actual market prices in the table. These actual market prices just fluctuate, period.

Second, even if Moseley were to embrace determination of his "long-run equilibrium" prices on the basis of physical quantities and simultaneous valuation, this would not help get him out of the corner into which he has backed himself. The notion that market prices fluctuate around, or converge upon, static-equilibrium prices is *just dogma for which empirical support is lacking*. The dogma runs into problems even in imaginary cases in which the physical input-output coefficients are held constant (i.e., imaginary static-equilibrium cases). It is a bizarre fantasy when it is applied to actual economies that experience technological change, as the following example illustrates.[1]

III. "Long-Run Equilibrium" Magnitudes: Centers of Nothing

The data in the example are generated as follows. In period t, x_{jt}, p_{jt}, p_{jt+1}, and r_{jt} are the output of good j, its input and output prices, and Sector j's temporal rate of profit. To produce a unit of output, Sector 1 uses $a_1 = 0.6$ units of Good 1 and Sector 2 uses $a_2 = 0.3$ units of Good 1. In the initial period (period 0), Sector 1 uses $l_1 = 0.4$ units, and Sector 2 uses $l_2 = 1$ unit, of living labor per unit of output; but both living-labor coefficients decline by 4% per period because labor-saving technological change occurs. The real wage rate per unit of living labor is initially $b = 0.5$ units of Good 2, but it rises by 4% per period. The monetary expression of labor-time is $m = 1$. Each good's initial input price is 1.275. Initial output is 99 in Sector 1 and 101 in Sector 2. The equations governing the temporal system's motion are

$$p_{1t+1}x_{1t+1} = p_{2t+1}x_{2t+1}$$

$$x_{jt+1} = x_{jt}(1 + 0.606[r_{jt} - r_{kt}])$$

$$r_{jt} = \frac{p_{jt+1}}{p_{1t}a_j + p_{2t}b_t l_{jt}} - 1$$

$$p_{1t+1}x_{1t+1} + p_{2t+1}x_{2t+1} = p_{1t}(a_1 x_{1t} + a_2 x_{2t}) + m(l_{1t}x_{1t} + l_{2t}x_{2t})$$

The first equation follows from the assumptions that aggregate expenditure is divided equally between the two goods (implying unitary elasticity of demand for each) and that prices adjust to

---

[1] The example is a slight variation on one presented on p. 94 and p. 110, n6 of Kliman (2007).

equate demands with supplies. The second states that output would be constant in each sector if rates of profit were equal, but that output of a sector is increased (decreased) if its rate of profit is greater (less) than the other sector's rate of profit. The third equation is the temporal rate of profit, and the last equation is the TSSI equality of total price and total value.

The static equilibrium rate of profit is computed in the usual manner: the two rates of profit are equated and output prices replace input prices in their denominators. This yields a solution for p_{1t+1} / p_{2t+1}, from which the solution for the rate of profit follows.

The results of this simulation are as follows. First, as Figure 1 shows, the two sectors rates of profit *do not* fluctuate around the static-equilibrium rate of profit (ROP). After the initial period, the actual rates of profit are consistently much lower than the static-equilibrium ("long-period") rate of profit. The actual rates of profit *do*, however, fluctuate around something else—the actual, temporally-determined, average rate of profit.

Figure 1. Rates of Profit Don't Fluctuate Around Static Equilibrium Rate
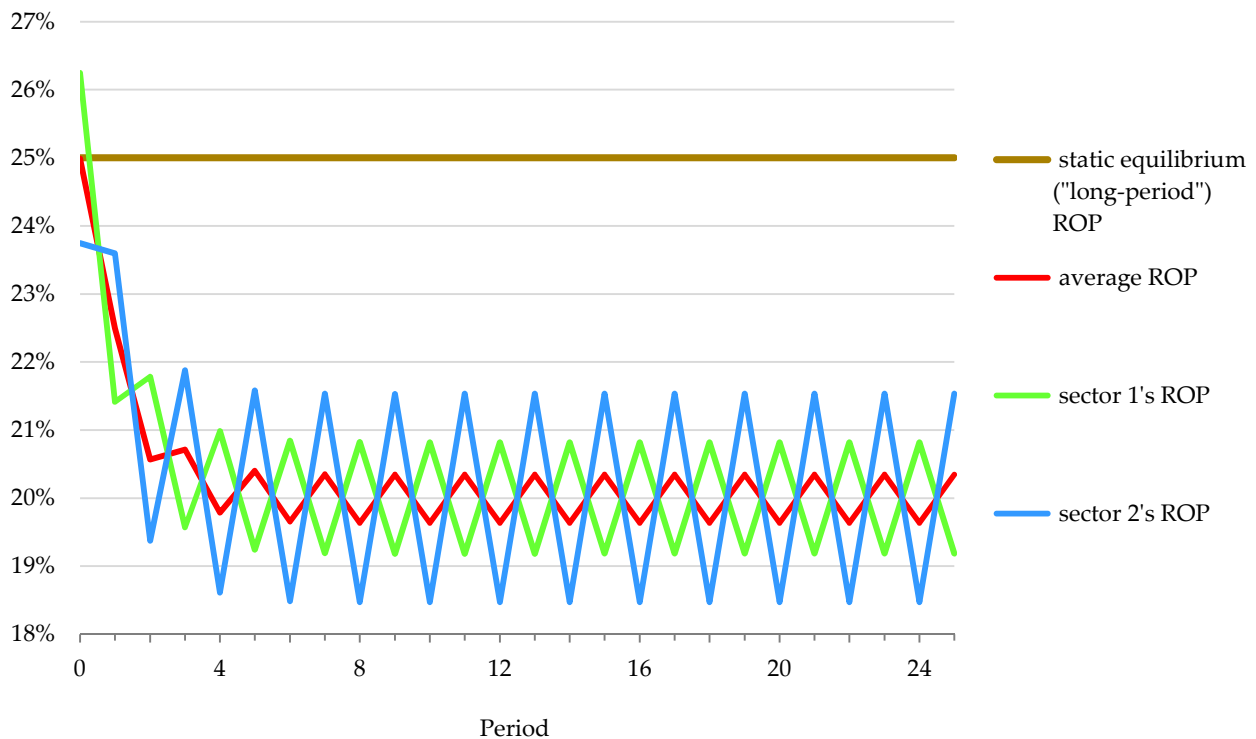
What accounts for this discrepancy between these results and the dogma that market prices fluctuate around static-equilibrium prices? The discrepancy is a direct consequence of the fact that the economy under consideration is not *a static-equilibrium economy*, but rather *an economy in which labor-saving technological change continually occurs*. In both sectors, the amount of living labor needed to produce a unit of output declines by 4% per period, so, on average, each sector's output price is 4% less than its input price. As a result, the actual, temporally-determined, average rate of profit is consistently lower than the static-equilibrium rate of profit;

and the sectoral rates of profit fluctuate around the former, not the latter. The relation between the actual average rate of profit and the static-equilibrium rate of profit is approximately

$$(1 + \text{actual average ROP}) \approx (1 - 0.04)(1 + \text{static-equilibrium ROP})$$

$$= (1 - 0.04)(1.25) = 1.2$$

so the actual average ROP is always approximately 20% after the first few periods. Note that the $1 - 0.04$ term represents the 4% decline in the amounts of living labor needed to produce a unit of output, which leads to the 4% average decline in output prices below input prices.

For the same reason, the simulation reveals that the actual market prices do not fluctuate around the simultaneously-determined ("long-run equilibrium") prices, as Figures 2 and 3 make clear. The simultaneously-determined prices are consistently several percent less than the market prices. Yet the market prices *do* fluctuate around something else—*the actual, temporally-determined, prices of production, computed on the basis of **actual** given quantities of money capital and labor-time, without regard to physical quantities or simultaneous valuation.* The actual market prices and the actual prices of production are approximately equal on average, since the average deviation between them is extremely close to 0%.

Figure 2. Sector 1's Price of Production, Actual vs. Simultaneously-Determined (% deviation from actual output price)
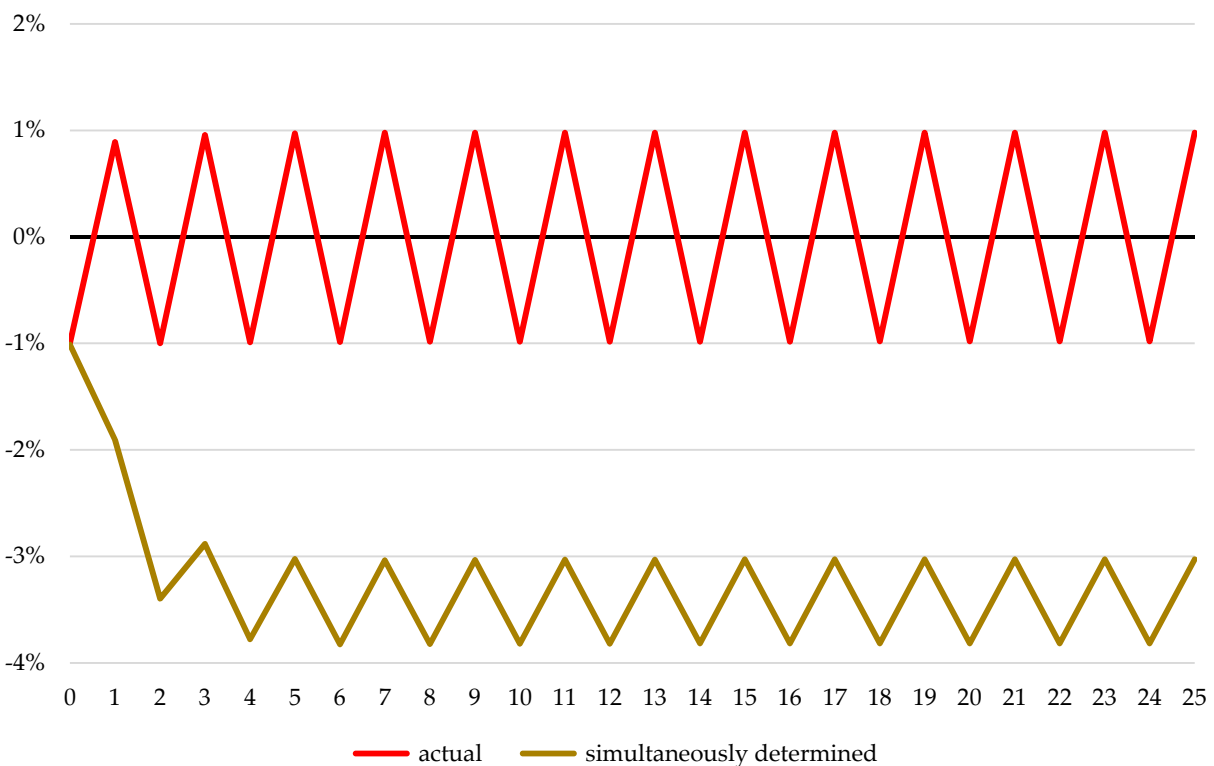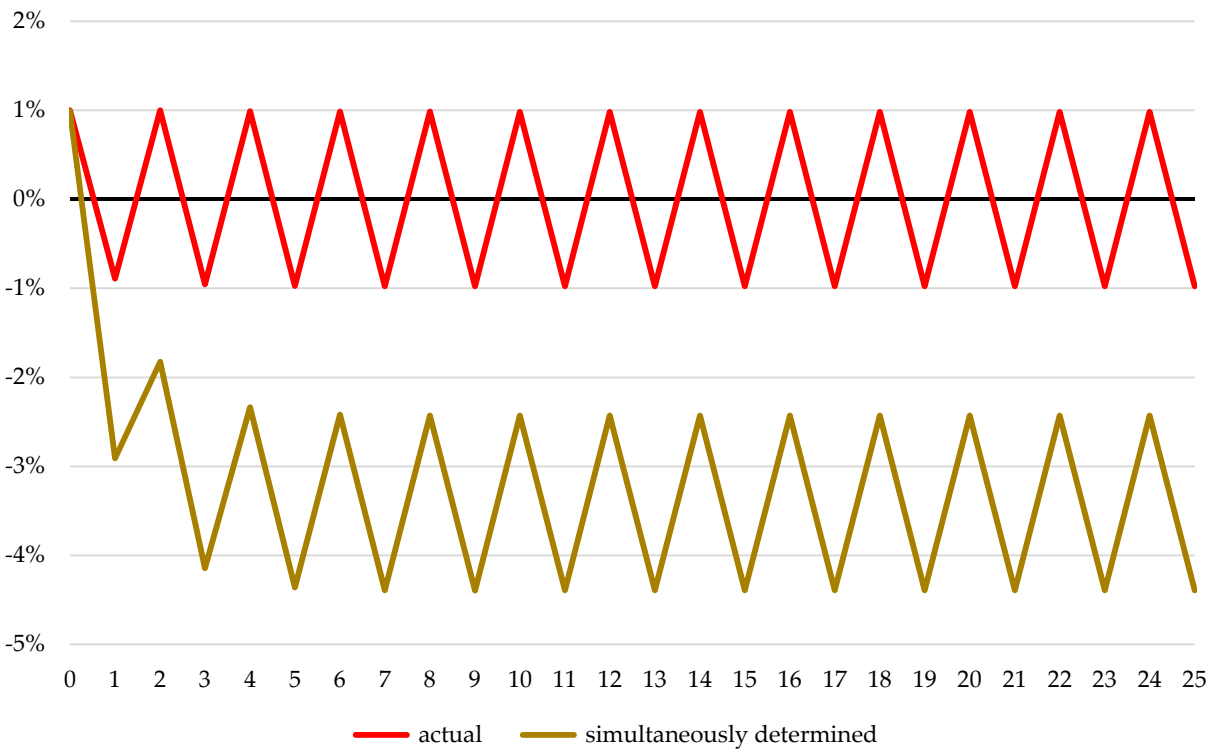

6

Figure 3. Sector 2's Price of Production, Actual vs. Simultaneously-Determined (% deviation from actual output price)

IV. Marx's Concept of Prices of Production

As should be obvious, Marx's concept of prices of production has nothing to do with the static-equilibrium prices. The most important evidence for this consists of his numerous statements over several decades that market prices in a competitive environment fluctuate around prices of production. As we have just seen, static-equilibrium do not fit this description.

The prices of production that do fit this description are actual temporally-determined, prices of production, computed in the exact way that Marx describes in chapter 9 of *Capital,* volume 3. They are computed on the basis of given actual, given quantities of money capital and labor-time, without regard to physical quantities or simultaneous valuation.

He defines prices of production as follows:

> The prices that arise when the average of the different rates of profit is drawn from the different spheres of production, and this average is added to the cost prices of these different spheres of production are the *prices of production*. … Thus the production price of a commodity equals its cost price plus the percentage profit added to in accordance with the general rate of profit, its cost price plus the average profit. [Marx 1991, p. 257; emphasis in original]

He says nothing, here or anywhere, about adding together the hypothetical cost prices (consumed constant capital plus variable capital) and the hypothetical average profits that would have existed if inputs had been purchased at prices that happen to equal output prices. His concept of price of production is infinitely more general and realistic than that. He is clearly referring to actual data, actual cost prices and average profits computed on the basis of the actual total profit.

He writes, "If a capitalist sells his commodities at their prices of production, he withdraws money according to the value of the capital that he consumed in their production and adds a profit to this in proportion to the capital he advanced" (Marx 1991, p. 259). Note that this sentence explicitly refers to "the value of the capital that he consumed" and "the capital he advanced"—actual sums of money-value that have been consumed and advanced—not "the value of the capital *he would have* consumed if input prices and output prices had been equal" or "the capital *he would have* advanced if input prices and output prices had been equal."

Yet on Moseley's interpretation, "cost price" must refer *exclusively* to the value of the capital that would have been consumed if input prices and output prices had been equal. If "cost price" were allowed to differ from that hypothetical value, then the price of production as defined by Marx ("the production price of a commodity equals … its cost price plus the average profit") would likewise differ from Moseley's "long-run equilibrium" price. However, Marx's actual definition of "cost price" does not depend on any particular "regime" of prices. The material elements of the consumed capital might have been bought at their values, at actual prices of production, at market prices, at monopoly prices (or even at "long-run equilibrium" prices). It does not matter; whatever the prices may have been, it is still the case that the production price equals cost price plus average profit. Marx employed this formula again and again, and never anything different from it, throughout his work.

Indeed, in the same Part of volume 3, he wrote,

> the price of production of a commodity that diverges … from its value enters as an element into the cost price of other commodities, which means that a divergence from the value of the means of production consumed *may* already be contained in the cost price ….
>
> It is *quite possible*, accordingly, for the cost price to diverge from the value sum of the elements of which this component of the price of production is composed …. [Marx 1991, p. 309; emphases added]

Note that Marx did not write what he would need to have written if Moseley's interpretation were correct, namely that a divergence from the value of the means of production consumed *must* already be contained, and that it is *absolutely necessary* for the cost price to diverge from the value sum of the elements. He wrote "may already be contained" and "quite possible." "May" implies "may not," and "quite possible" implies "not necessary." In other words, the formula that price of production equal cost price plus average profit is valid whether inputs were bought at their values or whether they were bought at their prices of production (or at other prices).

In fact, later on the same page, Marx wrote, "price of production = cost price + profit = $k + p = k + s$, which is equal in practice to the commodity's value." (k is cost price, p is average profit, and s is surplus-value.) Since k appears twice in the same formula, it follows that the magnitude of the cost price that partly determines the price of production is the same as the magnitude of the cost price that partly determines the commodity's value. Surely even Moseley cannot claim that the formula that value equals cost price plus surplus-value is valid only if the inputs were bought at "long-run equilibrium" prices!

References

Kliman, Andrew. 2007. *Reclaiming Marx's "Capital": A Refutation of the Myth of Inconsistency.* Lanham, MD: Lexington Books.

_____. 2016. "All Value-Form, No Value-Substance: Comments on Moseley's New Book, Part 11." August 23. http://www.marxisthumanistinitiative.org/miscellaneous/all-value-form-no-value-substance-comments-on-moseleys-new-book-part-11.html

Marx, Karl. 1991. *Capital: A Critique of Political Economy*, vol. 3. London: Penguin Books.

Moseley, Fred. 2017. [Comment on "All Value-Form, No Value-Substance: Comments on Moseley's New Book, Part 12"]. Jan. 9, 8:36 am. Posted in "Comments" section at http://www.marxisthumanistinitiative.org/miscellaneous/all-value-form-no-value-substance-comments-on-moseleys-new-book-part-12.html.