Chapter 5

Examples

Marx now gives a few examples of the workings of his theory. As we have seen, according to his theory the value of a commodity is determined by the amount of labor invested in its production. It follows then that changes in the amount of this invested labor will bring about changes in value. Or, to put it another way, changes in value which one observes on the market may be assumed to be the results of prior changes in the amount of labor required to produce the item. Marx gives examples as follows (at the beginning of the passage he is quoting himself):

> "As values, all commodities are only definite masses of congealed labor-time." The value of a commodity would therefore remain constant, if the labor-time required for its construction also remained constant. But the latter changes with every variation in the productiveness of labor. This productiveness is determined by various circumstances, amongst others, by the average amount of skill of the workmen, the state of science, and the degree of its practical application, the social organization of production, the extent and capabilities of the means of production, and by physical conditions. For example, the same amount of labor in favorable seasons is embodied in eight bushels of corn, and in unfavorable, only in four. The same labor extracts from rich mines more metal than from poor mines. Diamonds are of very rare occurrence on the earth's surface, and hence their discovery costs, on an average, a great deal of labor-time. Consequently much labor is represented in a small compass. Jacob doubts whether gold has ever been paid for at its full value. This applies still more to diamonds. According to Eschwege, the total produce of the Brazilian diamond mines for the eighty years, ending in 1823, had not realized the price of one-and-a-half years' average produce of the sugar and coffee plantations of the same country, although the diamonds cost much more labor, and therefore represented more value. With richer mines, the same quantity of labor would embody itself in more diamonds and their value would fall. If we could succeed at a small expenditure of labor, in converting carbon into diamonds, their value might fall below that of bricks. In general, the greater the productiveness of labor, the less is the labor-time

> required for the production of an article, the less is the amount of labor crystallised in that article, and the less is its value; and *vise versâ*, the less the productiveness of labor, the greater is the labor-time required for the production of an article, and the greater is its value. The value of a commodity, therefore, varies directly as the quantity, and inversely as the productiveness, of the labor incorporated in it.

Marx thus implicitly defines a seemingly scientific law for the determination of value: $V \propto Q/P$; that is, value is directly proportional to the quantity of labor and inversely proportional to the productivity (to use the modern form of the word) of labor. Actually, since the quantity of labor depends on the productivity of labor, we should say value is directly proportional to the quantity, *or* inversely proportional to the productivity, of labor: $V \propto Q$ or $V \propto 1/P$.

Let us see how his examples illustrate his point. Marx attributes the fact that the exchange values of various products are "constantly changing with place and time," to changes in the amount of labor the products contain. That is, the productivity of labor fluctuates; and since value is identical with the embodied labor, value also fluctuates.

It should be noted that Marx's first examples, and indeed all his examples, are relative ones. They concern relative changes in value, fluctuations up and down, rather than dealing in absolute numbers. That is, they only tend to correlate changes, rather than demonstrating a precise numeric relationship.

Having said that, let us look at Marx's first, agricultural, example. We see that Marx finds fluctuations in the productivity of labor, in agricultural matters, in the form of changes of productivity from growing season to growing season. That is, from one year to another there are changes in the amount of harvested output, which correspond to changes in the ratio of the amount of goods produced to the labor invested (this ratio being the productivity).

Let us look then at his first, agricultural example. He says "the same amount of labor in favorable seasons is embodied in 8 bushels of corn and in unfavorable only in four." That is, the same total amount of labor is exerted by a farmer in a good year as in a bad year; but for extraneous reasons beyond the farmer's control, the harvested output in one year is only half what it is in another.

In his agricultural example it thus becomes apparent that by productivity, Marx does not mean the word in the more usual, narrow sense in which it is normally conceived. He does not mean only the rate of output as determined by such workplace-related factors as the speed of the productive equipment, the state of technology, or "degree of [science's] practical application," and so on. Rather, he includes under the term all factors whatsoever that affect the output, including "physical conditions," like the weather, which affects crops.

Productivity is a mathematical proportion, the ratio of goods produced to hours of labor; and in Marx's lexicon anything which affects this ratio is included under the term productiveness, or productivity.

Marx cites the figures eight or four bushels: the total amount of labor is conceived of as being divided up into "innumerable individual units" of a certain size (though Marx doesn't tell us what size: he never gives us any numerical examples of the workings of his formula, but deals only with relative magnitudes). Each of these labor units of a certain size has produced, or has "embodied" itself in, its corresponding fraction of the total output, that being in either of the two years respectively eight or four bushels.

It is obvious that if the same amount of labor accounts for either eight or four bushels of corn, the ratio of labor-hours per amount of output is twice as high in the case of four bushels as in the case of eight. According to Marx's theory, this difference in "productivity" accounts for the fact that prices of foodstuffs are higher in years of bad harvests; this example shows how the prices were determined, and demonstrates that Marx's labor theory is what is at work in exchange value or market prices.

In sum, any time the ratio, "labor-hours/output of goods," changes, the exchange value correspondingly changes, just as Marx's theory predicted. Thus the example demonstrates the working of his law of value.

Rebuttal

On a certain superficial level of understanding, the cited example might seem to bear out Marx's theory. His definition seems to give the right answer: value is the amount of embodied labor per unit, and when crops are bad the usual amount of labor is divided up among fewer units of output, so the resulting value is larger. Thus his theory is in accord with reality as represented by the example.

If we consider Marx's formula or theory only as a "black box," looking only at the inputs and outputs without worrying about the internal mechanism, the example may be convincing. Given the right amounts of labor and commodities as input, it yields the right value (presumably) as output.

But if we concern ourselves with his explanation *as* an explanation, if we concern ourselves with the internal mechanism of his theory and how it functions in the real world, the example is less convincing. Then the question tends to arise: His formula gives the "right" answer for value, but how does anyone know the formula or the answer? How do the people involved in determining value – the capitalist who sets an asking price, the buyer who agrees to pay it – how did these people know how to adapt their actions and decisions to fit Marx's formula when determining prices? In short, what is the working mechanism?

That is to say, Marx's formula or law of value apparently works well as an *a posteriori* description of what goes on. But it is difficult to see how it could work in an *a priori* manner, in a forward-moving direction so as to determine the value in a cause-and-effect fashion. It is difficult to see Marx's "explanation" as an explanation, in other words. We have a price going up on one side of the black box, and either an amount of goods going down or an amount of labor going up, on the other side. The two seem to be in accord, but there is no rational connection that can be made between the two. Marx doesn't really give us a picture of how the varying factors like the weather produce the given result in the human milieu which is the marketplace. He gives no mechanism whereby his abstract theory or numerical formula might exert its effect on real-world economies.

The fact that Marx's formula for value seems to give the right result under certain carefully chosen circumstances does not prove that his theory is what actually is at work in those circumstances. Perhaps, on the contrary, his theory is just an *a posteriori* rationalization, an invented schema which somehow closely approximates or mimics the actual working dynamic.

That is what must be decided. Marx's entire labor theory in its finished version adheres so closely to supply and demand that it is hard to find a demarcation line between the two. Marx has so thoroughly modified, propped up, and adjusted his theory that its workings are almost indistinguishable from those of supply and demand; the predicted results of labor theory are the same in most cases as those of supply and demand. Thus it is difficult to think of a test situation or a set of circumstances which could be used to distinguish the results of the one from the other. His theory in effect "piggybacks" along with supply and demand – it sneaks in on the merits of classical theory, by molding itself to supply and demand so closely that the results of one can be mistaken for the workings of the other. Our task will be to determine which of the two is actually at work in determining prices.

Consider the first, agricultural example. Marx presents the higher prices of food in years of bad weather as a matter of "the productiveness of labor": a given amount of labor is embodied in, or divided up among, fewer bushels of grain in bad years than in good. He is in effect saying that prices are higher in bad years "by division," i.e., by the terms of a calculation based on his formula, "Value = total labor/total output." When output is low, and the labor remains the same, value is high. This is presumably a complete explanation because he has already proved his formula to be correct; and thus when he can show the results of its application in varying circumstances, he has given us the entire truth about why prices fluctuate.

But suppose the producers and sellers haven't read his proof. How, in the real world, do prices arrive at Marx's prescribed level? What mechanism in real-

world terms, apart from Marx's abstractions on a page, ensures that prices will correspond to embodied labor? Do producers actually calculate the embodied labor and then peg prices to that figure? No, if conscious calculation is what is envisioned, the calculations are much more in classical terms of starting with production costs (including, to be sure, labor costs) and adding on a profit. What Marx proposes is that prices automatically, by either a mystical or a naturalistic mechanism, correspond to the embodied labor, apart from any human calculation; value is a condensation of labor, a physical equivalence. Because value *must* equal embodied labor, market prices somehow, mystically, must conform themselves to the required figure. No other mechanism beyond that is offered by Marx. Notably, human will or calculation doesn't enter into the process.

Thus Marx does not offer any mechanism or chain of cause and effect whereby prices adjust themselves to the levels of labor (apart from his illiterate notion that value can be simply the substance, labor, in another state). Apart from such fractured physics, and apart from the presumptive authority of his deductive proofs, Marx gives no mechanism or explanation at all. There is no logical or coherent connection made between amounts of labor and resulting prices, or between bad harvests and prices. His "correlations" between the two are as irrational as the "correlations" of astrology.

As an example of the difficulties with his view, we might ask this: how do people even know how much labor is embodied in the grain? If the value is directly determined by that labor, still a money price must be set, and it is set by people; how do these people know where to set the price?

There might be a quasi-explanation for this: perhaps they base their reasonings on money, i.e., on the expenses incurred in producing the crop; and these expenses are (let us suppose) proportional to the labor. Thus, while the producers reason in terms of money, it is actually labor which determines the value of goods.

That is, we might say that the producers have paid just as much as in previous years, and that the expended labor is the same. Moreover, they want to get the same net return as always; and since their output is lower, they must charge more per bushel for it. Thus labor indirectly determines the value of the goods.

But that is simply the classical view with added, extraneous complications. It's an explanation based on supply and demand, or expenses, profit margins, and such; it's too much an explanation in human terms to be in accord with Marx's theory.

A formula is not an explanation; what we need to see is a mechanism, some factor which can operate in the real world to determine events. A formula may on an abstract level appear to give the right numbers under certain

circumstances, but the people involved in the marketplace, the buyers and sellers, don't govern their behavior by such formulae. If Marx's theory cannot show a mechanism whereby the forces active in the marketplace can result in the formula, then it is not an explanation at all. Rather, it is an assertion that there is a "correspondence" between two quantities, with no evidence given as to how there can be – much as it is asserted that the movements of the planets astrologically "correspond" to events on earth. The amount of scientific credibility is the same in both cases. Formulae derived by exercises in abstract logic don't govern the marketplace, any more than abstract theories about celestial constellations can control human behavior.

Counter-explanation

To Marx's "example" we may oppose the classical explanation. That explanation is that prices are high because, in years of bad harvests, demand is as high as ever, while supply is sharply lower. As Smith put it,

> When the quantity of any commodity which is brought to market falls short of the effectual demand, all those who are willing to pay the whole value of the rent, wages, and profit, which must be paid in order to bring it thither, cannot be supplied with the quantity which they want. Rather than want [lack] it altogether, some of them will be willing to give more. A competition will immediately begin among them, and the market price will rise more or less above the natural price according as either the greatness of the deficiency, or the wealth and wanton luxury of the competitors, happen to animate more or less the eagerness of the competition... Hence the exorbitant price of the necessaries of life during the blockade of a town or in a famine.

Comparing these two contrasting explanations of the price fluctuations in agricultural commodities, we see that Marx gives us a deduced formula based on "the productiveness of labor," through which value is determined purely by the quotient, labor/output. The authority for this formula is sheer force of logic. On the other hand the classical view gives not so much a formula as a picture. It illustrates the determination of value within a context of human economic nature and the decisions and actions taken in certain circumstances. The reader may judge for himself which of these two explanations is more credible. The point to be kept in mind, though, is that we are looking for a cause-and-effect explanation of the determination of price. The question is not whether a rote formula can be

devised which will more or less coincide, after the fact, with real-world movements of prices. The question is what determines prices; what are the motive factors; what causes price movements and what factors can function, in a cause-and-effect manner, to control prices.

Actually, there is no great mystery about this subject, if we remember that science is concerned with evidence and factual observation, and if we disregard the mystifications of abstract theorizing. Universal human experience of market forces, the personal knowledge each of us has of his own economic behavior, bears witness to the validity of the classical view. When supplies are low, prices stay high, because there is little competitive pressure to lower them – that is an economic commonplace observation.

Being a labor theory, Marx's theory is quite close to classical theory. To a great degree, in classical theory (that is, in real life), labor does determine price. Labor costs are one of the three components of price; when labor costs go up, prices have to rise, and similarly when labor costs go down. For the most part, in giving his examples Marx is not so much demonstrating the validity of his theory as saying again what classical theory also says: leaving aside other factors, where the amount of labor needed to produce an item changes, price will change in the same direction.

What classical theory has that Marx does not, is a coherent, cause-and-effect explanation of why this is so. The capitalist desires to cover his production costs and also make a profit. Therefore, if labor costs go up, his tendency is to raise prices. If labor costs go down, he might attempt to keep prices the same and thus increase his profit; but if there is competition from other producers, he will probably be unable to do this, and prices will fall. Thus there is in classical theory a chain of cause and effect, in terms of human economic behavior, showing how the end result derives from the initial factors. Moreover, this explanation is of great intuitive force for anyone who has ever had any economic dealings whatsoever.

By contrast, Marx's theory is a formula in a vacuum, devoid of any intuitive explanation or any demonstration of a working mechanism. It is simply a formula, putatively proven to be valid, whose results are therefore deemed conclusive, without the need of any elucidation as to its inner workings. Prices of food products rise in bad years "by division," because the quotient labor/output is (presumably) higher when output is lower; and because, as Marx has proved to his own satisfaction, value is identical with embodied or transmuted labor, and price is the "phenomenal form" of value. Thus his point is proven.

As one author said,

> During a famine a sack of potatoes does not represent any
> more work-hours than it does in a time of plenty, but it has,

299

> nevertheless, a much higher value... Marx's "labor theory of value" was just such an artfully-constructed piece of logical subtlety as one might expect from him. But it was obviously built up on an over-simplified foundation: from among a variety of possible causes only one was taken into consideration – *pars pro toto*. The result was in direct contradiction to the most palpable facts of everyday existence. [1]

And how did prices set themselves before Marx even wrote his theory? When no one knew prices were supposed to correlate exactly to embodied labor, certainly no one made any such calculations; yet prices presumably corresponded exactly to labor. There is no conscious mechanism whereby this could have occurred, and he offers us no credible *automatic* mechanism. The whole theory is simply not tenable.

A Complicating Factor

There is some problem with even saying that the same amount of labor is embodied in four bushels of corn in bad years as in eight bushels in good years. Marx's view of value, remember, is a very mechanistic, literalistic one – labor congeals or physically embodies itself within a commodity.

It is hard to form a coherent picture of how this works in his agricultural example; it would seem on the contrary that, in bad years, some of the labor is simply wasted; or it is embodied in the corn that "doesn't grow," as it were. What Marx seems to imply is that the labor that should have congealed in the stalks that didn't appear must now congeal in the stalks that did; i.e., labor must shift itself over from dead plants or kernels, to the living plants or to kernels that did grow. That view does not seem intellectually coherent; it seems to be another example of Marx's arbitrarily defining reality to suit his purposes.

Of course, it could be said that every plant grows, but that the growth is stunted and thus production is limited. Then perhaps a coherent picture could be formed: the labor, as usual, embodies itself uniformly in all the growing plants; the harvest contains all the labor just as in good years, and thus per-unit value is higher.

A case could be made for that, if the situation were that simple. Still, an equally credible case could possibly be made for saying that labor is wasted; that the potential growth, the grains that didn't appear, accounts for some of the labor, or that a certain proportion of the labor is simply wasted, invested or embodied in grain that didn't grow. Thus it is somewhat glib to assert that "the same amount of labor" congeals in the four bushels as in the eight.

What Marx probably envisions in his agricultural example is a situation where every producer's crops are down 50%, and where the entire amount of expended labor must be counted as "embodied" in the decreased output. The growth of the plants is stunted everywhere in the same proportion, let us say.

But suppose on the contrary the situation is this: some regions of the country have normal weather and normal harvests, while others have drought and total failure of the crops, producing nothing; thus there is the net result that, adding both regions, total output is half the usual harvest. We see then that the amount of labor directly, physically exerted on the grain which grows is the same as ever. That is to say, the labor embodied in the grain brought to market is the normal amount. The labor in the drought region has produced nothing.

In this case how does the price of the grain produced, which has only the usual or normal amount of labor actually embodied in it, become double the normal price? (That is, we know from experience and almost instinctively that the price would be high. We are interested, to repeat, in distinguishing the results as predicted by classical theory or real-life experience, from those predicted by Marx's theory.) How does the labor invested, in the bad area, in the production of no crops, "know" that it has to go over and embody itself in crops from the good area? Why isn't that just lost, with the actual harvest, containing the normal amount of labor, bringing in the same price as ever?

This raises again the issue of Marx's qualification concerning "homogeneous" labor, and his rationale for averaging the embodied labor in a commodity, society-wide. Labor as value should be the labor actually performed in producing a particular item – we have seen that. There is really no basis for saying that labor can average itself out. If labor physically embodies or congeals itself in the commodity, how can the resulting quantity be an average or "homogeneous" quantity? In the present example, the labor embodied in the grain produced in a particular field, let us say, should be the labor actually performed in that field. There is no basis for averaging it out over a region, or over a country, or over the entire world for that matter.

There are other considerations that could be brought into the equation. We might accept Marx's estimation that in certain circumstances an output of half the grain means twice the price. But some questions need to be asked about certain other situations.

Would it make a difference, for instance, whether granaries and silos all over the country were still filled with grain from previous years, or whether they were empty? If they were full, common sense might tell us that any price rise would be moderated (but this is common sense from the viewpoint of classical economics, and not necessarily Marx's view). On the other hand, if the only grain available was the current year's harvest, and if that harvest was down by half,

then prices would probably rise sharply to reflect the shortage (leaving aside considerations of the world market).

That is, again, the classical viewpoint. By contrast, it is questionable whether Marx's theory would make the above distinction; if this year's grain has a labor content twice the normal level, then its value and price should be twice the usual, and this presumably holds true regardless of whether there is any stored grain or not. It is the current "prevalent" state of "productiveness" that determines the price. This result from his theory, however, seems to be contrary to what we know of actual market prices.

Counter-Arguments

Presumably this objection could be countered by an added-on stipulation similar to Marx's previous two qualifications, perhaps by saying that value must be calculated on a basis of all the grain present. That is, if the labor content of the stored grain is the normal amount, and the labor content of the current harvest is double that amount, then the average for all the grain would be somewhat less than double the normal price. Thus his theory could explain why the price rise is moderated in such a case, bringing it once again into accord with reality.

That is, if the labor "socially necessary" is the amount required under "normal conditions of production," using the "average degree of skill and intensity prevalent," then maybe agriculturally speaking it would make sense to average the harvests over a period of years. That should be the standard of what is average or prevalent. This is especially the case if there is a large grain reserve in storage, buffering the market from the effects of one bad year.

This issue has several facets and several answers. First, we can say that classical, market economics might work like that, but it is not what Marx's theory says. Within his theory, what the harvest might have been the previous year, and how much grain is being held in storage, is irrelevant to the current price. The average degree of skill and intensity, the prevalent conditions, are those which obtain *now*, at the present moment, at the time the value is being calculated. You don't average the past price of hand-woven cloth together with machine-woven cloth, and you don't average past harvests together with the current one. The value has to be as Marx's theory stipulates: the ratio of labor to output in the current growing season.

We might ask ourselves what the situation would be if no grain were produced in the current year, but grain previously stored in warehouses or silos were put on the market to help make up for the shortfall: what should the price of that previously-produced grain be, according to Marx's theory?

Such a case would probably fall under the heading of the second qualification of Marx's labor theory. The value of a product, or the "labor-time socially necessary," is the amount under "normal conditions of production," those "prevalent at the time." In other words, the situation is analogous to the one where a new method of weaving cloth comes into use: the price of hand-woven cloth, previously produced, falls to the level of machine-woven cloth, the machine method being now considered the "prevalent" or "normal" condition of production.

In the same way, in a bad harvest the higher amount of embodied labor is the current, prevalent, now-normal value of grain; previously-produced grain would also assume the current, normal value. To take this reasoning farther, whether previously-stored grain is put on the market or not, the price of grain remains the same, being determined by the prevalent condition as to the amount of embodied labor contained by the grain. (That quantity is its value, and price is the phenomenal or observable form of it.)

(It should be noted that there are a couple of differences between the case of the grain and that of cloth. For one thing, in the case of the cloth, the new or now-prevalent value is lower than the previous one; prices are falling because of the advent of more-productive methods. In the case of the grain, on the other hand, the value is rising.

For another thing, the value of grain is inherently more volatile and unstable than the value of cloth. The labor required to produce cloth would seem to be pegged to such mechanically-determined factors as the state of technology, the type of productive equipment available, and so on. These factors would tend to change infrequently, and to move in plateaus or by steps. The value of agricultural products however, if we accept Marx's characterizations as to what constitutes embodied labor, could vary continuously from season to season.

This latter difference may however be more illusion than reality. In the case of cloth, other factors besides the state of productive equipment enter in, and these are less stable. Cloth is often woven from cotton, flax, and such – these are themselves agricultural products and contribute their own instabilities to the net result.

At any rate, the differences are not so great but that it seems certain the value of stored grain should fit the circumstances outlined in Marx's second qualification.)

The conclusion then is that the value of stored grain brought onto the market in times of bad harvests, would be the same as newly-produced grain; and whether stored grain is sold or not, the price of grain would be the same.

This result, which Marx's theory predicts, is contrary to all common sense and experience. It seems intuitively obvious that if grain is brought out of storage to help meet the shortfall, the price rise will be moderated. (Or perhaps it is not

intuitive sense that tells us that, but our general observations of actual events in the real or "phenomenal" marketplace.)

It may seem glib to say that real-world events verify classical theory and refute Marxism; it seems too easy just to say, "The real world bears out classical theory." But such is the case; it is only that Marx has disdain for the real world. The results of his conceptualized or theorized deductions carry more weight for him than mere "phenomenal" facts. His concept of science was not the modern one of experimental, observational verification of hypotheses; but rather, he reverted to the Scholastics' method of accepting the results of his deduced theories as authoritative. Thus there is a misconception, or actually sheer ignorance, at the root of Marx's very concept of the nature of science itself, causing appeals to the real world and its facts and events to be of little weight in Marx's theory.

A Complicating Question

The interesting issue is whether Marx *could* have, consistently with the rest of his theory, stipulated that agricultural value should be averaged over a period of several years; and also, on what basis we can decide that question. Whether the stipulation would have been satisfactory to Marx is hard to say; we have little basis for answering that question. He generally proceeds by *ad hoc* logic and bald pronouncements, and it is thus hard to develop a method for knowing what he would have permitted. As was previously stated, Marx gives us no procedural rules for making our own inferences; he gives his own ready-made pronouncements, and we have to take them or leave them.

Ultimately, however, we can come to the same conclusion about our hypothetical qualification as we came to about Marx's actual qualifications. It is untenable for the same reasons that Marx's "qualifications" are untenable; there is a contradiction between his picture of value as a physical component of the commodity, and the notion of labor's or value's shifting itself around from grain to grain and averaging itself out. It cannot be averaged from year to year or from grain field to grain field. Marx's theory is again too inflexible and simple-minded to cover the variety of real-world considerations involved.

Actual Explanation

The actual explanation for a price rise in bad seasons is not a mindlessly-applied theoretical formula; prices can be explained in terms of people and their responses to economic circumstances, as follows:

The farmer may or may not put as much labor into his crops in a bad year as in a good; if there is a total drought, the labor of tilling is removed, for example. But he certainly has all his usual expenses, or nearly so. And he needs to make a living, pay debts, buy seed, fertilizer and so on for the next year; in short, he desires his usual income, even though he has not grown the usual quantity of crops. Thus there is an incentive for him to raise the price-per-unit of his output.

On the other side, the demand for grain is fairly inelastic. It may be shifted laterally to other foodstuffs, but compared to other commodities the demand for food is in general inelastic. In such conditions of decreased supply and constant demand, the price will rise. Again, it may be moderated if there are large stockpiles of stored grain, produced in earlier years at a lower cost. But sellers of grain can be expected to raise the price just so much as the market will bear.

This is an explanation suited for grown-ups; it is an explanation in real-world terms, and in human terms. It is not a fantasy of abstractions and specious deductions produced in a theoretical vacuum.

More Counter-examples

It might be helpful to evaluate Marx's agricultural example in the light of a few more counter-examples. What his theory apparently envisions is a bad growing season, but one in which the usual amount of labor is still performed. The season is not a complete failure right from the outset, in other words; it is not an absolute drought, which might drastically curtail the amount of labor done. Farmers still carry on their normal activities of planting, tilling, harvesting and so on; thus Marx's example assumes the labor exerted is about the same in the bad year as it normally is in good.

In contrast to this, suppose there were to be a simultaneous decline in both the labor performed and the amount of crops harvested. For instance, let us say large regions of a country experience a severe drought, so that after initial planting almost no more work is done on the land (the planted crops dying almost at once and so not needing to be tilled, and there being no weeds to control). That is, we're saying there's almost no output of crops in these regions, but also a greatly curtailed investment of labor.

And just so we can say *some* grain is brought to market, let's say that at the same time there are some few regions of the country which experience normal weather and normal harvests. What would Marx's theory predict in such a case for the value, or price, of grain?

In such circumstances there would be a relatively small rise in the average labor-content of the grain; only a small amount of labor from the failed crops, namely the labor of the initial planting, would be added to the labor of the

successful crops. The resulting rise in labor per produced output would be much smaller than in Marx's example. (The labor from the drought regions, we understand, transmigrates to the good regions and "embodies" itself there along with the labor of that region.) And because the labor content and the amount of output are in the normal range in the good growing areas, the quotient arrived at by dividing the entire amount of labor by the entire output will only be fractionally higher than the normal figure. It might be a third greater, to pick a number arbitrarily.

That is, we might have total output, as in Marx's example, down by half, but total labor also diminished by some percentage. We would have a calculated "value," or average labor content, only about a third more than in normal years. This is the value for the grain which Marx's theory would predict or stipulate in such circumstances.

The reader may judge that conclusion for himself and decide what would actually happen to prices if the output of food were cut by half – regardless of whether a lot of labor had been wasted (as in Marx's example), or only a little. If we judge empirically and by our actual experience of the marketplace, disregarding Marx's fantasized set of theoretical abstractions, we will have to come to the classical view that the amount of wasted labor has nothing to do with the result; supply and demand are the pertinent factors controlling price. When the supply of food decreases the price rises to just that level that the demand for it will support; this, regardless of whether a lot or a little excess labor has been "embodied" in the harvest. The price is governed by the entire complex of economic conditions and exigencies, by the responses of people to the economic situation, by supply and demand – not by Marx's abstract deductions.

Non-Weather Example

So far our agricultural examples have been concerned with bad weather as the cause of a decline in output. Another situation we could envision is when a decline in both the labor performed and the food harvested occurs as a result of the simple abandonment of productive effort, where for some reason a great number of farmers simply cease to grow anything.

During the time of the "collectivization" of agriculture in the Soviet Union (two periods, really, roughly 1918-19 and 1928-33), many peasants simply refused to grow more food than they and their own families could consume. At the same time, large numbers of the marginally more prosperous peasants ("kulaks") were rounded up and shipped off into concentration camps of the Gulag. As a result of all this, there was little farm output. And there was famine

306

in the U.S.S.R., famine, as Solzhenitsyn points out, "without war or drought," of sufficient severity to starve millions. (Adding to the severity was the fact that the Soviet Union continued to export food; moreover there was actual destruction of grain and livestock by some peasants.)

The issue that concerns us here, though, is what value Marx's theory would predict for foodstuffs at the time. The amount of grain produced was small, but the amount of labor expended was also small; in fact it would be reasonable to say labor was small in proportion to the decline in output (ignoring the wasted labor "embodied" in the destroyed livestock, that is).

Thus we could say that if the amount of grain produced was half that of normal years, the amount of labor invested was scarcely more than half the normal amount. So by the terms of Marx's formula, the labor content per unit of output of grain must have been the same as in normal years; the value should have been unchanged. That predicted result is of course preposterous.

During the time of collectivization of agriculture in the U.S.S.R., prices of food soared – as they have in every similar instance in history, whether in besieged towns, or in times of famine, or *whenever* the supply of food has been gravely inadequate. Prices of food were described by people who lived through the two main periods as "disastrous" and "atrocious."[2]

One author describes the period this way:

> Crowds of starving wretches could be seen scattered all over the potato fields. They were looking for potatoes left over from last year's harvest. No matter what shape the potatoes were in, whether frozen or rotten, they were still edible...
>
> There were some villagers who saw their salvation in the cities' marketplaces. There they brought for sale their best clothes, from prerevolutionary times, their family heirlooms, handicrafts, women's jewelry which had been passed on from generation to generation, homemade shirts, towels, tablecloths – all embroidered with traditional Ukranian designs – handwoven Ukranian rugs, and other valuables. These they sold for next to nothing, or bartered them for something edible.[3]

Another author adds:

> Only in the bazaars, the independent market-places, were there no waiting lines. But here prices were fabulous... here cheese cost 3 roubles a pound; meat, 2 to 3 roubles; butter, 7 and 8 roubles... a wilted winter radish, 50 copecks; beets and carrots, also 50 copecks each.[4]

307

These are prices on the uncontrolled or "black" market. Rationed food, of course, was cheaper, but it was not subject to economic laws – it was doled out via centralized governmental control. But on the black market, and in what free markets were allowed, food brought phenomenal prices.

At the height of the famine, the situation in the Ukraine was this:

> The wives of officials, who had large rations, would attend the Kiev bazaars and market their surplus food for the peasants' valuables, at bargain prices. A richly embroidered tablecloth would go for a 4 pound loaf of bread, a good carpet for a few such loaves. Or beautifully embroidered shirts of wool or linen...were exchanged for one or two loaves of bread…[*]
>
> At Torgsins, golden crosses or earrings would go for a few kilogrammes of flour or fat. A teacher got "50 grammes of sugar, or a cake of soap, and 200 grammes of rice" for a silver dollar.[5]

A more quantified general statement of the situation is given by another author, in these words:

> The earlier deliveries of grain requisitioned by the state had completely disrupted the kolkhozi [collective farms]. The granaries of the Ukraine were empty of all the grain required for the subsistence of the peasants and their livestock. The peasants were exhausted and refused to do any work, made no effort to gather their harvests, left the wheat to rot in the fields...
>
> A dreadful famine overran the countryside... This crisis was accompanied by gigantic inflation. The wholesale price index, on the basis of 100 in 1913, rose from 156.9 in 1927-1928 to 197.5 in 1931. In the same period the purchasing power of the ruble fell in considerable proportion. [6]

There was a rationing system at the time, of course, with food being doled out to all those with the proper papers. But where the market could be observed, where the workings of "capitalist" economics occurred (and that is what Marx's

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[*] And consider the amount of "labor-time" embodied in such works of embroidery! The shirts and other items should normally have been quite valuable, and worth a lot of food.

labor theory attempts to describe), supply and demand determined price as always. Mechanistic formulae as expounded by Marx held no sway.

The situation has always been the same, in times of severe shortage brought about by war, famine, or other catastrophe. After the Russian Revolution, during the resulting civil war, conditions were much the same:

> Subjected to constant requisitions that were organized by [Communist-] party commandos in the rural areas, the peasant limited his efforts to what was required for his own subsistence. At once famine set in in the cities, which were abandoned by the workers...
>
> The heart of Moscow, the real center of its activity, was now the "Sukharevka," the citadel of the black market. A mass of many thousands of persons swarmed over it, proletarians and former aristocrats jostling one another in the struggle for survival. Here the most miserable object had a price. Here everything was barter: butter was traded for silk handkerchiefs, six eggs for one jacket, a tool for slippers. Sometimes in this market one would stumble on an old woman offering two lumps of sugar on a saucer – her total assets.[7]

And similarly during the Second World War; one author describes the situation thus:

> We found, alas, that the prices, already inflated, had skyrocketed in the few months of war. The cheapest tobacco cost forty rubles a glass, which is the peasant measure; a pint of milk cost fifty rubles; a chicken, 1200 rubles or almost the equivalent of two months' pay for an officer. The ordinary private, whose pay ranged from eight to twelve rubles a month, would have to serve nine years to pay for one chicken at open prices in November, 1941.[8]

The same author reports:

> I visited the free city market [in Vladivostok], where food and clothes were on sale, at fantastic black-market prices, in greater profusion than I had seen anywhere in the U.S.S.R. Much of this merchandise was clearly American, no doubt stolen from lend-lease consignments or brought in by Russian sailors. I

saw a simple pair of women's shoes fetch three thousand rubles
in this market. I saw a kilo of bacon sold for 1200 rubles. [9]

Perhaps the most suggestive illustration of the inflation of prices in times of war and famine, is this eye-witness report, from right after the War:

There was an invasion of rats. All the cats had disappeared during the siege of Leningrad, when people would pay two hundred rubles for a cat. [10]

How much "labor-time" is normally invested in raising a cat, and how much is one generally worth as a food item?

Still More Counter-examples

We could pose other, even more prosaic, agricultural counter-examples. In the United States during the winter months, vegetables can be grown only in some southern and western states. During these months they are grown there and are shipped throughout the country. Now, what should the value of these winter vegetables be, according to Marx's theory?

The average amount of labor required to grow them is, let us say, about the same as in the warm months anywhere in the country. Shipping costs add to the price somewhat, since on the average the produce must be shipped farther during the winter than food grown during the summer (when it is more likely to be consumed close to where it was grown). Or rather, properly speaking Marxian-wise, we should say it is the *labor* embodied in shipping the vegetables to market which adds to their value.

At any rate, apart from the added transportation costs, according to Marx's theory the value of winter vegetables should be about the same as that of summer vegetables. In fact, this is not the case. In the winter the price of fresh produce can be two or three times the summer price. This is because in the winter, when the supply is lower, there is little competitive pressure to keep prices low. Supply and demand determine the price, and the real world does not conform to Marx's theory.

It is possible to conceive of some responses Marx's theory might make to this example. It might be said that value, in the sense of inner, labor-determined "Value," is just what Marx's theory says it is, but that capitalist tactics make for a higher "phenomenal form" or market price. That is, the capitalists take advantage of the short supply of vegetables in the winter to exploit the consumer and charge more than the inner, transcendently valid "Value."

310

This response however is just a mystification of the subject. Inner "Value" is an unseen, unknowable entity; it can't be measured or its existence verified. We have only Marx's word for its existence. Thus to say that "phenomenal" price deviates from the pure theoretical value is just to say that Marx's theory is not in accord with the facts; his theory is not what determines price and is fit only to be discarded. Everything in the real world not in accord with Marx's theories cannot be dismissed as an aberration or special circumstance. If Marx's "Value" is overruled and displaced by market price, then of what use or pertinence is it? It becomes just a mystification, a theory of unseen entities with no real-world significance, like such past theoretical entities as phlogiston. We must adopt as our theory that which in actual practice determines price, i.e. the classical theory of supply and demand. Applying the principle of Occam's Razor, we must discard useless, irrelevant (and invisible) entities.

One important technique in Marx's work is his use of various sophistries to explain away conflicting facts, the application of various ad hoc rationalizations after the fact as a way of saying, "My theory is correct; it is the facts that are mistaken." When actual market price does not fall into accord with Marx's theory, he produces rationalizations explaining how his theory of inner, transcendent Value is actually valid, but that because of this or that peculiar circumstance present in the case, it appears not to be so, or it must be calculated in a different way, or other ad hoc considerations must be factored in.

It has been said that any theory can be proved if the theorist is allowed to add as many assumptions as he wants at any time he wants. That is how Marx's theory is preserved, and how its apologists continue to cling to it. "Value" – inner, invisible, and transcendent – remains inviolate and always just what Marx's theory says it is. But whenever market price threatens to upset the theory, added assumptions and sophistries are produced to modify the theory and account for discrepancies. Thus Marx's theory becomes rebuttal-proof, unfalsifiable, buttressed by an endless succession of tacked-on assumptions and sophistries. It ends up as a faith or creed, adhered to with a ferocious tenacity, about something unexaminable which is expounded in an unfalsifiable theory. This theory may be the ameliorist "vision of a better world" Marx so disparaged, but it is certainly not the science he professed it to be.

Another Complicating Factor

> *"We live in a planned society, which means we don't know what is going to happen tomorrow."*
>
> *Gerasimov, a Soviet citizen*

Another question could be asked about Marx's theory: would it make any difference to the value of a harvest if, say, the wheat crop was drastically down, but harvests of corn, oats, and barley were good? Wouldn't that added factor moderate the price rise for wheat, more so than if harvests of other crops were bad too?

Common sense and universal economic experience would say so, and again experience contradicts Marx's theory. In Marx's theory, no such accommodation is possible – certainly there is no justification for conceiving of labor as jumping around or evening itself out among different commodities. But the facts of the real world in such circumstances indicate that there is more to the determination of the price of grain than the simple-minded formula, "Half the output means twice the labor content, and twice the value." It is just one problem that, even in Marx's fully-developed theory, the "homogeneous" and "prevalent" amount of labor is figured on the basis of one commodity alone.

Marx's formula mimics the actual determining factors fairly well, but what actually determines price is the whole complex of factors loosely grouped under the term "supply and demand." Labor is one factor, but not the whole answer.

Another issue not addressed by Marx's theory is the existence of alternative foodstuffs. So far we have been speaking of one product or a generic category, "grain"; but we have been speaking of it as an indivisible category and as if it were essential to the diet. We haven't addressed the possibility that one crop might suffer but that there might be other things to eat; we have spoken as if a shortage in the product under consideration meant a shortage of food in general, and thus a high demand in proportion to supply.

It is possible, however, for one crop to suffer while other foodstuffs are in normal supply. In such a case there might be a shortage of a particular food, but a sufficient supply of other foods so that people are not really in danger of going hungry. Even though it might mean switching from a preferred food to one less desirable, there could be a change of diet in response to the shortages.

Surely this would be a pertinent consideration. Wouldn't it be reasonable to suppose that it would make a difference in the final market price of a commodity whether there were other foods to take up the slack, or whether all foods were in short supply simultaneously?

In Marx's theory, of course, it would make no difference. The value of a commodity is the labor invested per unit of output; what other competing or complementary products are available makes no difference.

Here we encounter a side issue not discussed by Marx. What constitutes a single commodity? Is a single type of grain, say wheat, a commodity to itself, its value to be calculated as a separate thing apart from other grain crops? Or should all cereal grains be lumped together as constituting one commodity? Marx

apparently did so (speaking of "corn" in the sense of grain, not in the sense of maize).

Or on the other hand, it might be asserted that individual varieties of a grain, like durum wheat, red wheat, and so on, constitute separate commodities because they are marketed and priced separately. How do we know where the divisions can be made, and how does Marx's theory make the distinction?

Actually, there is no objective way of knowing, and Marx does not issue any general rule for making any such distinction credibly. We make divisions only where he tells us there are divisions, and we know only because he tells us. His theory is based on his authority only, and not on any objective, distinguishable characteristics of different produced goods.

At any rate, it seems clear that if a wheat harvest is bad, the price rise will be less if other crops are good than if all crops fail together. Economists have long noted that the existence or lack of alternative products affects the price of a given commodity; under certain conditions of supply, at various price levels, a proportion of the demand for one product can be satisfied by a switch to another product. Thus the price rise is moderated.

That is, again we make the appeal to self-evident facts. Marx's theory attributes to the grain in question one statutory price only: labor divided by the amount produced. However, we can see that other considerations enter into the determination of market price. Marx's theory is inadequate to account for the facts – if the facts are what we are interested in.

Also, it makes a difference what the crop is, or how important a part of the diet it is. If the wheat crop were bad and other crops good, there still might be a quite large rise in wheat prices, because in this country people would be reluctant to switch to other grains. If the rice crop only were bad, the price rise would be moderated, because rice is not a staple of the diet here, as wheat is. In oriental countries, the situation might be just the reverse.

The leads to another homely agricultural example. At the time of this writing, rutabagas are for sale in a local market for 19 cents a pound, and tomatoes are 59 cents a pound. What this means, according to Marx's theory, is that the amount of labor required for producing rutabagas is pound for pound approximately one-third that for growing tomatoes.

This ratio of respective amounts of labor may indeed be correct, or close to it, because labor is no doubt the largest single factor in the costs of these agricultural products. However, Marx's theory willfully excludes the other pertinent factors of price, profits and rents.

To continue with the example, however: let us take as valid Marx's representations about the relative amounts of labor in the two products. Then let us suppose that in the next growing season, three-fourths of all the tomato

growers in the country somehow decided *en masse* to switch to growing rutabagas instead.

Under such circumstances, we have to assume that the respective amounts of labor needed to grow tomatoes and rutabagas will be unchanged; there is nothing different about the new situation that should make them change (other than perhaps a slight increase in efficiency due to the nature of production on a more massive scale). And according to Marx's theory, the sudden change in the amounts of the two vegetables brought to market, that is, the difference in supply, should make no difference: the congealed labor determines price, and that is unchanged. The net result should therefore be simply a highly increased quantity of rutabagas selling at the same 19 cents a pound, and a greatly curtailed supply of tomatoes at 59 cents a pound. The reader may estimate for himself the plausibility of such a result.

The key difference here is in the quantity of the two products normally sold. The price of rutabagas is 19 cents a pound for a crop which is only a minute fraction of the size of the tomato crop. The demand for rutabagas is small in relation to the demand for tomatoes; tomatoes are an inestimably more popular vegetable. These earthy realities, which form no part of Marx's theory, make it very unlikely that a price of 19 cents a pound could be maintained for a massive harvest of rutabagas.

If there were a sudden flood of rutabagas on the market, producers would find it difficult to sell their rutabagas at any price. The price would plummet, perhaps to whatever minuscule amount the crop could bring for use as pig fodder. Or the crop might be good for nothing but to be plowed under, to enrich the soil.

Smith aptly characterized this situation:

> When the quantity [of a commodity] brought to market exceeds the effectual demand, it cannot be all sold to those who are willing to pay the whole value of the rent, wages and profit, which must be paid in order to bring it thither. Some part must be sold to those who are willing to pay less, and the low price which they give for it must reduce the price of the whole. The market price will sink more or less below the natural price, according as the greatness of the excess increases more or less the competition of the sellers...

He also adds an interesting side issue:

> The same excess in the importation of perishable, will occasion a much greater competition than in that of durable

314

commodities; in the importation of oranges, for example, than in that of old iron.

At the same time the price of rutabagas fell, the price of tomatoes would do as it always does when the supply is low in relation to demand; it would rise to just that level that could be supported by the current conditions of supply and demand. This would mean a large price increase, as it has throughout history whenever a desirable commodity has been scarce. Price does not conform itself to Marx's reductive formula.

(It should be pointed out that later on in his text Marx does attempt to account for situations such as the one just described. A full treatment of his explanation is out of place here. Suffice it to say that his argument turns around the phrase "socially necessary," which is part of his definition of value. A condition of excess supply means that more of a product than is "socially necessary" is produced, and that therefore more labor than is "socially necessary" is performed. Thus only the "socially necessary" labor contributes to value; the rest must be discarded, not figured in with the value. His explanation, another qualification of his theory, is again an *ex post facto* rationalization or fudge factor.)

To sum up this example, then: rutabagas can be sold for 19 cents a pound when a normal amount of the crop is raised; but a crop of three or four times the normal size cannot be sold at that price. (And this is not because rutabagas lack "use-value." Rutabagas, objectively speaking, do serve a function; they do have calories.) The equilibrium of the market is disturbed; the point at which effectual demand just about meets effectual supply, at what Smith calls the "natural price," is displaced. The price falls.

Market conditions, and the entire complex of real-world economic consideration, actually determine price. The amount of "embodied labor" is not determinative; Marx's abstractions and prescriptive formulae are irrelevant to the real world.

Incidentally, the type of occurrence referred to above, where there is a sudden flood of one commodity onto the market, is most typical of communist centrally-controlled economies, not free-market economies. For example, consider this incident, reported in the *Wall Street Journal*:

> As communism falters nearly everywhere else, dedicated advocates of China's planned economy are having trouble defending Beijing's cabbage crisis...
>
> For several weeks every November, thousands of oversized trucks rumble into the city center, carrying hundreds of

> thousands of tons of *baicai*, or long-stemmed Chinese cabbage. The trucks dump the cabbage in deep piles on street corners, where they are tended by workers...known to some locals as the "cabbage doctors."
>
> Normally, the vegetable sells out in days... But things have gone badly awry this year. At the root of the crisis was last year's disappointing cabbage harvest, which prompted Beijing officials to take action. First, they ordered peasants in Beijing's suburbs to increase the farmland devoted to cabbage by 24%. Then they raised the price the state pays for cabbage, to encourage farmers to grow more.
>
> ...[T]he trucks kept coming, and the city was soon awash with cabbages. Some makeshift cabbage depots resembled five-foot-high green snowdrifts, with narrow passageways shoveled out to let people pass...
>
> So the planners... introduced regulations aimed at coercing citizens buy [sic] at least 110 pounds of cabbage apiece, for the good of the nation...
>
> A worker says he and his wife had to buy 110 pounds of cabbage apiece. "We'll probably have to move out of our apartment just to store the stuff," he says.[11]

Note that the order to increase the amount of farmland devoted to cabbage, and the ordered rise in its price, both were decreed by central authority. Perhaps such difficulties of command economies, and the myriad unintended side-effects of economic decrees, explain the comment quoted above, "We live in a planned society, which means we don't know what is going to happen tomorrow. "[12]

It is true however that some accretions similar to the above example are also found in the "farm policies" and agricultural marketing orders of capitalist or democratic societies.

Another Example

Another example, similar to the preceding one but non-agricultural, could be devised. Suppose the Rolls-Royce carmakers suddenly decided to expand production, to an output more on a level with that of Ford or Toyota. Let us also assume quality were to remain as high and all the same hand-crafted production methods were to be adhered to. (We'll leave aside the question of where the added numbers of skilled craftsmen would be found.)

With the same methods and the same expenditure of labor, but with greatly augmented production, then, could the price remain the same?

While theoretically the value of the cars should remain the same, it is difficult to see where all the extra buyers could be found who could afford a Rolls-Royce. At the current, actual level of production, or supply, the "natural price" as Smith called it is approximately met; demand just about equals supply. But if production were capriciously increased, such conditions could not be maintained. Regardless of what an item "should" be worth, there are only so many people who can afford to pay the full "natural" price of such things as Rolls-Royces. That is the nature of demand/supply curves: demand may be sufficient to maintain a certain price at one level of production (supply), but not at another.

Such real-world economic considerations are not found in Marx's theory. His theory is essentially an effort to write about economics without regard to the fact that people are conscious, or to the fact that economics is a realm of human, social behavior. He seeks to set up economics as a quasi-physics, as an impersonal automaton driven by natural law, not human behavior. He rarely stoops to the prosaic, "un-scientific" level of saying, "People do this or that."

His automatistic formula, then, attributes a value to Rollses equal to the embodied labor. Even if as many Rollses were produced as there are now Fords, each should have its prescribed value. But this is an absurdity. This example demonstrates that an abstracted formula, an impersonal law of value, cannot be made sufficiently subtle, complex and variegated to approximate the workings of the real-world human economy. Marx's specious pseudo-physics of economics comes close, but it can never exactly mimic real economic complexities.

(Again, it should be said that later in his text Marx addresses such situations as this example, his arguments turning around "socially necessary" labor, "socially necessary" amounts of production, and so on. Those arguments will be dealt with in due time.)

Non-Agricultural Examples

We proceed now to Marx's non-agricultural examples. He says, "The same labor extracts from rich mines more metal than from poor mines. Diamonds are of very rare occurrence on the earth's surface, and hence their discovery costs, on an average, a great deal of labor-time. Consequently, much labor is represented in a small compass."

The Classical View

To begin with, we must remember that Marx is attempting to show how his labor theory exerts itself in the real world. Scarce minerals, which typically are taken from poor mines, have as a result more labor invested in them than more abundant minerals, which are taken from richer mines. Similarly, diamonds and gold, we are to understand, are valuable because it requires a lot of labor to produce them – both the labor of searching for deposits of them and the labor of mining them and separating the actual valuable substance from large quantities of ore.

Again in these examples we are faced with the problem of how closely Marx's labor theory approximates classical theory, and how hard it is to separate the supposed effects of labor theory from the workings of supply and demand. In the present examples the supply-and-demand explanation could be expressed this way: the high price of such things as rare minerals, gold, and diamonds, is due to the mere fact that they are rare, rather than to the large amount of labor required to produce them. However, the fact of their rarity does mean that the labor required to produce them will be large; this intertwining of factors is what makes it so hard to distinguish Marx's explanation from the classical one.

Marx's labor theory in this instance is a sort of reverse of the truth, attributing high value solely to the labor. It is not quite accurate to say that the high price of gold and diamonds is due to the high amount of labor embodied in them; rather, it is the high *demand* for such materials, and the high price that can be obtained for them, that makes it worthwhile to exert all that labor. The mere fact of their rarity, as Marx indicates, means that the amount of labor needed to obtain such articles will be large; but it is the rarity relative to demand, not the fact of the exertion of the labor itself, that makes gold and diamonds valuable.

 (It is however common even today for commentators, even those writing from a classical-economics perspective, to write as if the amount of labor required, in and of itself, could account for a product's high value.)

One economist, R. Whately, author of *Introductory Lectures on Political Economy*, expressed the situation well. The following passage quotes not him but another author, summarizing his views:

> Whately...rejected, however, the idea that labour was essential to create value; and in a passage which has been quoted many times he expressed what he thought to be the real relation between cost and price. "It is not", he said, "that pearls fetch a high price because men have dived for them; but on the contrary, men dive for them because they fetch a high price." [13]

To elaborate on this point: returning to our basic Smithian analysis of price, we can say it is true that a high amount of labor tends to require a high price. The producer – in this case the mining company – must recover labor costs, including exploration costs, mining costs themselves, costs of separating precious material from ore, and so on. Thus the asking price, or the needed price, will be at a level sufficient to cover all this labor cost (as well as any rents and profits).

But the fact of a high requirement of labor, i.e. high labor costs, in and of itself cannot fatalistically predetermine that the price will be at the required level; labor does not automatically give a product a high market value, in other words. (And of course, contrary to Marx's underlying picture, there can be no question of labor's physically embodying or crystallizing itself into value, and thus directly constituting value by a process of metamorphosis.)

The process of establishing value does not work mechanistically and deterministically, in other words. Entrepreneurs can't simply put whatever effort is required into producing gold and diamonds, and know that the exertion of the effort itself will create enough value to recompense them. Rather, some consideration must be made of "what the market price will bear"; there must be consideration of a market that functions according to rules of its own.

A mine may contain gold or silver in some quantity, but not in sufficient concentration to make it worthwhile to mine it. If a mine will yield six dollars' worth of silver per ton, and if it costs forty dollars per ton to mine the ore, the market price of silver isn't automatically going to rise to forty dollars just because that is the "value" of the silver as determined by the invested labor, or by Marx's theory. The market itself (to use a pathetic fallacy) has a voice in things, in other words; it acts, as well as being acted upon – it is "dialectical," rather than being governed by fatalistic, predetermined categories.

To sum up, a high amount of labor necessitates, for the entrepreneur's sake, a high price; but it is not sufficient in itself to guarantee a high price.

It should be noted that when Marx says, "The same labor extracts from rich mines more metal than from poor mines," he probably means to compare mines of an abundant metal to mines of a rare metal. That is, he is not comparing the values of the same metal when produced from a poor or a rich mine – the value of either metal would be the same, being a "homogeneous" or average price (a uniform market price). So we must conclude, he is comparing different metals – comparing the amount of labor needed to mine a metal that is rare, in content of which mines are generally poor, to a metal that is abundant and of which rich mines can be found.

That is, for a rich mine, one containing an abundant mineral, a certain amount of labor produces a large amount of output; the ratio of embodied labor

per unit of output is small. For a poor mine, one of a rare substance, the ratio of labor to output is large. This, Marx asserts, explains their respective values.

One indication that the market-oriented view is the correct one is that mining companies have to take some account of market prices in determining what deposits of minerals to mine. They don't mine every known source of a particular substance, in other words. Some deposits of gold ore, for example, don't have enough gold in them to make them commercially profitable to mine. The labor and expense of separating the gold from the ore is greater than the current market price of gold.

Such a situation may exist at one time, and at another time the price of gold may have gone up so high that it becomes profitable to work previously unprofitable mines, or even to refine the "tailings" or waste material from previously-worked ore, for unrecovered gold.

But when prices are low, the simple fact of mining a poor deposit, exerting a lot of labor, cannot automatically create a high value for the gold. And when the price rises, this will generally be because of some other factors in the economy – because market conditions have raised the price. This price rise for the metal can then result in the poorer mines' being brought into production. That is, other conditions help determine price, not just labor costs alone; value is market-determined and not an automatic reflection of embodied labor.

Of course, Marx's theory doesn't state that for an individual mine, the labor determines the value of its output. There must be an averaging, a determination of "homogeneous" value. However, in his view, if a mine poor in gold (and thus high in labor expenditure) were brought into production, there would be an overall rise in the value of gold, because the average amount of labor invested in producing a given amount of gold would be raised. (In reality, the price would be more likely to decline a little, because the supply would be somewhat increased.)

It might be objected that a very poor mine should be excluded from consideration, because, as Marx stipulates, the labor that constitutes value is the labor "under the normal conditions of production" and with the productivity "prevalent at the time." Thus you couldn't bring into production a mine much poorer in gold than the average mine and expect the labor exerted to be reflected in the price of the gold produced.

The short answer to this is that when you begin working a new mine, that mine becomes *part* of what goes into determining "prevalent" or "normal" conditions. There is no good reason to exclude a new mine. That is, with mines there are not just a small number of discrete, widely-separated rates of productivity (as in the case of hand-weavers of cloth and machine-weavers, for example). Rather, there are more likely to be numerous mines possessing ores of various richnesses; there is more of a continuum in the richness of mines. What has to be done is to draw a line somewhere on this continuum beyond which it is

not profitable to mine the ore, or beyond which the mine cannot be considered to constitute "normal conditions of production." That is hard to do.

For example, suppose there are a certain number of deposits of gold ore being actively mined. Then suppose someone has a mine, just a little bit poorer than the poorest mine already being worked, and he decides to bring it into production.

Under these circumstances you couldn't categorically disquality his mine as being too far removed from "normal conditions of production." There are differences of richness among all the mines – there is no more reason for disqualifying this new mine, because it is not quite as rich as the next-poorest mine, than there is for disqualifying the next-poorest mine because it is not as rich as the third-poorest. There is a continuum in the richness of ore and no objective basis for drawing an arbitrary demarcation point.

To put it another way, the figure of what is the "normal" or "prevalent" condition of production changes as you change other conditions; it is a moving target. Trying to exclude some mines because they don't meet the current average richness is illogical; any demarcation point is purely arbitrary.

The situation is somewhat like a suggestion a baseball player once made in an attempt to be helpful: baseball player John Lowenstein once suggested that first base should be moved back a foot "to eliminate all close plays." [14]

But of course you can't eliminate close plays by moving first base – the close plays just take place at a different distance from home plate. And you can't eliminate close calls on what constitutes a mine worthwhile to work. And there's nothing distinctive or special about any particular state of richness of a mine; regardless of how many mines you include in your reckoning, the next one is just as worthy of consideration as the last one, and the "prevalent" condition and "ordinary" value reflect all the mines in operation. It's always a close call to find a demarcation point.

At any rate, according to Marx's labor theory, the average or "homogeneous" amount of labor required to produce the gold should determine its value. Thus if our hypothetical mine-owner decided to bring his mine into production, his mine would have to be figured in with all the other mines in finding the average. And since his mine would have a lower gold content in the ore than all the other mines already in production, it would require a higher amount of labor to produce a unit of gold than all the other mines. So when this gold is averaged in with the rest, the value or price of the gold would have to rise.

That is: according to Marx's theory, all that is necessary for raising the price of gold is to bring a mine of marginal-quality ore into production.

That is an unlikely prediction. The value of the gold, far from being determined in isolation from the marketplace solely by the total amount of labor exerted in mining it, is set by other, external conditions – market conditions.

Rather than the number and the richness of mines being worked determining, in themselves, the value of gold, it is the market value of gold which determines which mines can be profitably mined. Value is not magically or fatalistically determined *a priori*, at the time of production, by a statistic of production like the exerted labor. It is determined by the whole aggregate of economic considerations, all the factors that enter into the reaching of bargains among buyers and sellers. It is determined by the "dialectical" interplay of supply and demand, a synergism, a mutual interaction between the two ends of the equation.

Thus it is not quite accurate to say that the large amount of labor required to produce gold is what causes the gold to have a high value. Rather, it is the high value of gold – the high demand for it, the high estimation placed on its use-value – that makes it worthwhile to expend the labor.

To return to our hypothetical example, then: if a marginal mine is brought into production, this fact cannot by itself cause the price of gold to rise; buyers are in no way influenced by it to be willing to pay more. Rather, it is more likely that the price of gold will decline a very slight amount, because of the slightly larger supply of gold being brought to market. Marx's artificial set of rules cannot be stretched to cover all the varied situations that can arise in the complex real-world economic arena.

Labor Alone No Source Of Value

In short then, the exertion of labor does not in itself give a product value, and the amount of labor exerted does not automatically and by itself determine the magnitude of exchange value.

There are many things we could think of that would require a lot of labor to acquire, but which don't have a high value. Wild pandas are rare, and to acquire wild panda dung would require "on an average, a great deal of labor-time." (Let us suppose that for our purposes dung from zoo pandas is a distinguishable and less satisfactory product.)

Moreover, it cannot be said that panda dung has no use-value – it is useful for fertilizer, if nothing else.

Can it then be said that wild panda dung has a value corresponding to "the mass of congealed labor-time" (human, not panda) embodied in it? No, because first of all, there is not the high demand for panda dung that there is for gold and diamonds. Panda dung is not highly prized, as gold and diamonds are, and thus the price which can be received for it does not justify the exertion of the labor necessary to acquire it. A product such as gold (or panda dung) takes a lot of labor to produce, but the market price must be high enough to make that labor

worthwhile. This fact in and of itself shows that labor-content alone doesn't determine exchange value.

To the non-existent price for panda dung we might contrast the price of ginseng. According to at least one newspaper article, ginseng has not been proven to have significant benefits for health:

> At best, it has been shown to be a tonic or a mild pain reliever, like aspirin.
>
> But in Asia, it's widely seen as an aphrodisiac that also boosts the body's immune system, calms nerves, aids digestion and slows the aging process.[15]

Thus while there may be little or no actual use-value to ginseng, there is a market in it. As the article continues,

> In opening week of ginseng buying season last week, [a certain buyer] bought more than 500 pounds. At $185 a pound, that's almost $100,000 changing hands in a week...
>
> And the wild stuff carries a far higher price than its cultivated cousin, which Orientals think is coddled and thus less potent.

The moral is: in the case of ginseng, for good reasons or bad, there is a demand for the product. The labor required to produce it, in and of itself, does not create value; that is done by a pre-existing market demand. There is no such pre-existing demand for panda dung, and thus no market for it.

Another example might be this: as reported in *U.S. News and World Report*, March 28, 1994,

> Rhino horn, used in China and Taiwan in traditional medicines, fetches up to $30,000 a pound. Powdered tiger bone, also used in medicine, can sell for $500 a gram.[16]

On the other hand, platypus spurs, as far as we know, have no market value at all, even though they are probably just as rare and would take as much "labor-time" to acquire as rhino horn.

As a prominent textbook puts it,

> [I]f it would cost $50,000 to print the national anthem on the head of a pin, but there is no demand for such a commodity, it

simply will not be produced and would not command $50,000 if it were produced.[17]

And while labor alone doesn't ensure the existence of value, sometimes value can be added with absolutely no increase of labor at all. The following incident, pertaining to Stalin's collectivization of agriculture, is recorded:

> The ruthless character of the accelerated collectivization and the disorders that it incited, which threatened as they spread to bring about the fall of the government, led Stalin to sound the retreat. On March 2, 1930, he published an article, "The Vertigo of Success," in which he denounced the excesses of the collectivization campaign...
>
> Stalin's step backward... allayed the peasants' anger. The issue of Pravda in which this article was printed, and which normally sold for five kopecks, brought as much as ten rubles in the villages.[18]

In other words, in the case of a sudden rise in demand, apart from any added labor costs, the price can rise.

The determining of value or market price is a two-sided, "dialectical" matter. The value which people place on an item, their *valuing* of it, produces demand, which must reach some kind of balance or accommodation with the producer's or supplier's need to recoup the cost of producing the item. Value is not unilaterally created by the exertion of a certain amount of labor.

It might be objected that while panda dung has use-value, it does not have *enough* use-value to support a high price. This however would be to admit that use-value has a quantitative side and is not a monistic entity. That is, there are degrees of use-value; thus we can say that the value of gold is due to the fact that it is rare and is highly prized, i.e., it has high use-value. That is what gives it a high value and makes it worth the labor to produce gold. Panda dung may be rare, but it is not of high use-value; demand for it is low or nil, and the labor required to produce it would not be warranted by its price.

(And there are substitutes for panda dung; there are other sources of fertilizer. This is another issue that must be entered into the equation for figuring value. If one product requires a high expenditure of labor, while another product can be used for the same purpose but requires less labor, can the full "value" of the first product be consistently realized for it? Or will the price have to be lowered somewhat to meet the competition presented by the other product? Or

for that matter, perhaps "manure" is a commodity classification and cannot be broken down into subgroups like "panda manure" – we don't know.)

Another Example: Labor No Source Of Value

To give another example: elephant tusks are rare, and they require (presumably) a lot of labor to acquire. Thus, their price is high. On the other hand, elephant ears are also rare, but they do not command a very high price. They have use-value, insofar as elephant hide can be used for various products; but elephant hide is not as highly prized as elephant ivory.

Again, in this case it appears to be the existence of competing products which makes part of the difference. Elephant hide presumably is not very different from other types of leather, whereas ivory is a more nearly unique substance. Ivory's value as a decorative item comes from this uniqueness which, together with its rarity, gives it high value. By contrast, elephant ears are rare but not unique, and not uniquely prized. In a strictly utilitarian sense elephant ears have use-value, but they do not have enough use-value, they do not have unique use-value, and they are not sufficiently prized and desired to make it worth the expenditure of labor to acquire them. Insofar as they require a high amount of labor to produce, they would serve as a good example of Marx's theory; but they wouldn't repay the labor, and so the labor isn't done (at least not for the sake of the ears). This again shows that labor alone can't create market value.

Actually, in the case of ivory, it is likely that the value comes almost exclusively from its scarcity; the actual labor required may not really be very great. Elephants are rare, but it may not be true that "their discovery costs, on an average, a great deal of labor-time." Most elephants exist on wildlife reserves, and they are not extremely hard to locate; the labor involved may come more from evading law-enforcement officials than from finding the elephants. The total labor may be relatively small, and it may be that the factor of risk is the main consideration on the "production" side, rather than the labor.

Even tradition may play a part in the value of some natural products. A newspaper article on a clothing manufacturer includes this bit of information: "Hickey-Freeman suits still feature buttons made from water-buffalo horns, a century-old custom, even though most customers can't tell them from plastic." [19]

There may be a certain edge of superiority of buttons made from the natural product as opposed to plastic; but this is probably a situation where, if it weren't for the positive decision of one manufacturer, the market in the particular natural product involved would be non-existent or at least much-diminished. The use-value, or the superiority of use-value above that of synthetic products, may be slight or non-existent; but the manufacturer has chosen to use the product on his

suits, passing the added cost along to his customers, who pay it. Thus between the two of them, demand is created, primarily by the conscious decision of the manufacturer for aesthetic and traditional reasons. If not for that conscious choice, the amount of labor required to secure the product would probably not be justified, for then there would be no demand at all for an expensive product. That is, to repeat: labor alone doesn't create the value.

For the most part, scarcity alone is sufficient to explain the high price, without considerations of labor costs. There are few elephants, and perhaps few people irresponsible enough to poach them (though there is a legal market to a certain extent), and the supply of ivory is small. Demand is relatively high, and these considerations, rather than "embodied labor," make the exchange value of elephant tusks high. Even if the labor costs were low, in other words, the price would still be high; the profit factor would just be larger.

In sum, the cost of ivory is high, while the value of elephant hide or ears is relatively small, rather than their both being quite valuable as Marx's theory would predict. (We cannot however ignore the fact that there is more hide on an elephant, measured by weight, than there is ivory; the gross value of the entire hide may come close to that of the ivory.)

More About The Classical View

As always, while we reject Marx's mechanistic picture of the way in which labor constitutes value, we cannot discount labor itself as a factor in determining price. Indeed, Smith makes remarks quite similar to Marx's about the relation of value to the labor required to produce gold and silver:

> The discovery of the abundant mines of America reduced, in the sixteenth century, the value of gold and silver in Europe to about a third of what it had been before. As it cost less labour to bring those metals from the mine to the market, so when they were brought thither they could purchase or command less labour...

Smith himself is not always consistent in his labor theory. But it is doubtful that he envisions by the above a "pure labor" viewpoint like Marx's. It is said not from a viewpoint of labor as the sole factor in determining price, or of labor as automatically and directly transmuting itself into value, but rather from within a context of Smith's view that the labor which a thing tends to command or be exchanged for on the market (the truest measure of its value) tends to correspond to the original "cost" of producing it in the sense of the labor exerted to do so.

"Labour was the first price, the original purchase-money that was paid for all things," he tells us. And as labor was the first cost of everything, this cost tends to be reflected in exchange value, so that things produced by equal amounts of labor tend to be of equal exchange value on the market.

Labor is the predominant factor in mining ventures, but profits and rents also are pertinent. Smith points to these factors in other remarks about the market prices of metals:

> A commodity may be said to be dear or cheap, not only according to the absolute greatness or smallness of its usual price, but according as that price is more or less above the lowest for which it is possible to bring it to market for any considerable time together. This lowest price is that which barely replaces, with a moderate profit, the stock which must be employed in bringing the commodity thither. It is the price which affords nothing to the landlord, of which rent makes not any component part, but which resolves itself altogether into wages and profits. [20]

Here too we see that Smith does not consider labor and other factors as automatically creating a fixed value; rather, market value is determined by market considerations, and the entrepreneur cannot be fatalistically certain that whatever labor costs he incurs in producing a commodity will be recompensed in the market price.

We can see too that for Smith the role of the labor required to produce gold and silver is that of a cost of production, which must be recouped in the market price. Labor is not a substance which metamorphoses directly into value. Thus Smith says,

> That the silver mines of Spanish America, like all other mines, become gradually more expensive in the working, on account of the greater depths at which it is necessary to carry on the works, and of the greater expense of drawing out the water and of supplying them with fresh air at those depths, is acknowledged by every body who has enquired into the state of those mines.

The mechanism whereby labor contributes to value is via *cost*, not by metamorphosis of labor into value; higher amounts of labor mean higher production costs, and where there are higher production costs, the entrepreneur must receive a higher market price if his venture is to continue to function.

(However, the market is not obligated to allow it to function; value is not fatalistically determined by labor.)

Thus if the discovery of gold and silver in the Americas lowered the cost of those metals, because the labor required to produce them decreased, this decrease in labor lowered the production cost (and supply was higher). "As it cost less labour to bring those metals from the mine to the market," the producers were under less severe constraints in regard to what price they could profitably accept. And while they might have liked to keep the price the same, someone was sure to undercut the others; as always, under these circumstances the price had to fall to more nearly the new natural price. Competition and market considerations of supply and demand assured that.

Thus when Smith says, "The occasional fluctuations in the market price of gold and silver bullion arise from the same causes as the like fluctuations in that of all other commodities," we come again ultimately to supply and demand. Market forces determine the value of gold and silver.

Overall, we can say that when there are more abundant mines, the amount of labor required is smaller, as Marx's theory says. The producer can afford to sell gold cheaper, because his costs are lower. But Smith's is ultimately a supply-and-demand theory, rather than a labor theory. The increased amount of gold, rather than the smaller labor required to mine it, is what ultimately determines the lower cost (as we see in the following remarks):

> When more abundant mines are discovered, a greater quantity of the precious metals is brought to market, and the quantity of the necessaries and conveniences of life for which they must be exchanged being the same as before, equal quantities of the metals must be exchanged for smaller quantities of commodities. So far, therefore, as the increase of the quantity of the precious metals in any country arises from the increased abundance of the mines, it is necessarily connected with some diminution of their value.

Notice: the "increased abundance" is what lowers the value. In the same vein, with regard to the discovery of the American mines, Smith says, "[T]he increase of the supply had, it seems, so far exceeded that of the demand, that the value of that metal sunk considerably."

Smith, in short, sometimes writes as if in agreement with Marx, as if believing the high price of precious metals, gems, etc., is due to the large amount of labor it takes to find and mine such materials. Overall, however, as noted before, Smith has a different perspective from Marx; his "labor theory" does not proceed from the same assumptions as Marx's. It is safe to say that, if for Smith

high amounts of labor cause high prices, it is because labor *costs* are one large factor of exchange value: the more it costs the producer to bring an item to market, the more he must charge for it. In this there is a rational, economic reason why labor costs effect price; there is not the mystical assumption of Marx's, that labor transmutes directly into value. And labor for Smith is not the whole story, the be-all and end-all behind exchange value. His view seems clearly the more realistic and evidence-based of the two.

For Smith, or for classical theory, the final answer or broadest picture is given by the workings of market forces, or supply and demand. As Smith says (concerning precious metals), "Their highest price, however, seems not to be necessarily determined by any thing but the actual scarcity or plenty of those metals themselves.[21]

Marx would have us believe that the high price of precious metals is the result of the large amount of labor required to mine them. That is superstitious: the exertion of labor in and of itself cannot command a certain market price, or create economic value. It is reductionist – labor is not the only factor of value. It is a sort of confusion of cause and effect – it would be more accurate to say that the high value of the metals is what makes it worthwhile to exert the labor.

The high value of gold, diamonds, etc. is a result of their utility, their usefulness, the degree to which they are desired and prized: high demand in relation to the small supply. The high amount of labor makes it necessary to get a high price for them, but is not in itself sufficient to assure that result; other economic factors must also be at work to do this.

Jacob and Gold

As for the comment, "Jacob doubts whether gold has ever been paid for at its full value": value by what standards? One standard of value is market price, or market value. By this standard, whatever is paid for gold and diamonds, that *is* their value; there is no other value but market value, at least in practical terms. You can get no more for a thing than the selling price, by definition.

However, there is a somewhat more fundamental standard, "natural price." In some sense this tells what the price of a thing "should" be; it should recompense the labor, rents and profits at a "normal" or usual rate. But it is not to be maintained that Marx means to appeal to this standard in saying that gold and diamonds were not paid for at their full value. Marx means to appeal to some other standard in saying so – either his self-defined "embodied labor," or some standard of Jacobs'. But his standard is specious. The gold, the diamonds, were paid for at a certain market price; that *is* the value of the gold or diamonds. Value, in economic terms, is market price – what a thing sells for – or else

natural price, a slightly different concept, but in any event surely not the one Marx is using.

The word "value," as market value, *means* what a thing will bring on the market. Marx is giving examples to show how it is his labor theory which governs value; but then he says, gold and diamonds don't bring their full "value," meaning value in terms of his labor theory, value equal to their embodied labor. In saying that they don't bring a price commensurate with their embodied labor, he is showing that market price isn't governed by embodied labor. That is a disproof or counter-example to his labor theory, not an example of it.

Richer Mines

"With richer mines... their value would fall." This is so because the supply would be larger, not simply because the embodied labor would be less. As stated above, the lower requirement of labor, meaning the lower production cost, would allow mine operators to lower prices; but only competition and market forces would force them to do so. The decline in the amount of labor required for producing the diamonds would mean lower production costs, and so the mine-owners could afford to sell at the lower attainable price and still make a profit. They might want to keep prices high, but the presence of competition would in most cases prevent it. Demand would not be sufficient at the old price to "clear the market" of all the diamonds. But this is a classical-economics explanation, attempting to find a line of cause and effect. Marx's version by contrast is simple-minded and reductionist; it is based on philosophical abstractions and argumentation, not economics.

Carbon Into Diamonds

"If we could succeed at a small expenditure of labor, in converting carbon into diamonds, their value might fall below that of bricks." Marx's prediction is correct – the price would fall, for synthetic diamonds at least. In terms of Marx's theory, this is because the expended labor is lower, and expended labor is by transmutation value.

The real reason can be seen in terms of two factors: the supply would rise, while the costs of production would fall. This latter factor is indeed a result of the smaller amount of labor required, as well as the smaller investment in such capital expenses as mineral rights to the land, mining equipment, shipping costs, and so on – all this, assuming diamonds were produced in a laboratory instead of being dug from mines.

Thus it appears once again that Marx is right – lower labor causes lower value. But how and why? These differ, as before. The "natural price," the price a capitalist "normally" wants and must have in order to produce profitably, is composed of labor, rents and profit; that is to say, the capitalist normally prices goods at a sum representing his costs of production, plus a profit. If production costs go down, the required price goes down. To put it another way, there can now be a supply offered at a lower price than was possible before; the supply curve has been redrawn, and competition is likely to assure that the price drops to reflect the new reality. The decline in production costs would tend to produce price competition – producers could *afford* to cut their prices, because production costs would be less; and they would tend to do so rather than to lose business to their competitors. To that extent the amount of "embodied labor" does control price, but not in the simple-minded manner Marx envisions.

Thus the lower labor costs result in a lower value (price), not because labor is "embodied" in the form of value or congealed labor, but because of the interaction of market forces.

(There is some reason to think, too, that real diamonds would always retain their original value, or at least a price premium over manufactured diamonds; this, despite the fact that the two would be functionally, or compositionally, identical. There is a certain cachet about that which is genuine – a certain consumer preference for it, an attribution of added worth due to its genuine origins. Consider the case of cultured pearls – they are in every sense real pearls; yet chance or accidental "wild" pearls still command the highest prices. The economic world is a complicated realm; too complicated for Marx's simple-minded formulas.)

Marx's labor theory is not a theory of market value; it is a system of abstract categories to which he adheres in spite of market value, a theory that exists in the realm of philosophical speculation. Thus when he says that gold and diamonds are not paid for at their full value, he means their full value as defined by his fantasy theory. The real world obviously pays their market value, based on standards of its own; and that is literally their full value. Marx's attitude is that his theory is definitive, and if market value doesn't align with it, its workings must be defective in some way: "My theory is correct; it is the facts that are mistaken."

Further Comments On Gold

The value of gold is not determined by the labor required to mine it – i.e., not by that alone. The case is more nearly the reverse, that the value determines how much labor will be put into it. (However, fluctuations in the amount of labor

required to mine gold, i.e., in its production cost, result in fluctuations in the price.) Marx's non-quantitative examples do not show what he says they show.

As mistaken as his labor theory is in ordinary cases, it is perhaps even more inadequate in the case of durable items like gold and gems. Unlike things like food and clothing that are produced and consumed fairly quickly, gold and gems can circulate for years, and their value doesn't decrease as greatly as other goods' from being second-hand or "used." Thus when we consider that supply and demand are really the ultimate factors governing market price, we see that the magnitude of previous production, over a long period of time, can affect the current circulating supply. And so gold, gems, and the like are even more insulated against the effects of the current amount of labor necessary to product them, than the general run of products.

Whereas, under the terms of Marx's second qualification, it should be the labor *currently* being embodied, the current "prevalent" amount, that determines value, realistically it is difficult to believe that this can be so. More likely, judging from common experience, it would seem that the total amount of such commodities in circulation or on the market at a given time, in proportion to demand, is a more exact controller of the market value. As Smith says, in a sort of summing-up judgment, the "highest price [of precious metals], however, seems not to be necessarily determined by any thing but the actual scarcity or plenty of those metals themselves." Marx's examples, his attempts to fit the real world into the explanatory framework of his theory, do not convincingly show the contrary.

Summation

Having cited his examples, Marx sums up his labor theory this way:

> In general, the greater the productiveness of labor, the less is the labor-time required for the production of an article, the less is the amount of labor crystallised in that article, and the less is its value; and *vise versa*, the less the productiveness of labor, the greater is the labor-time required for the production of an article, and the greater is its value.

In general, that is true; the more labor required to produce an article, the greater are the costs of production. And the higher the costs of production, the greater must be the final selling price.

Marx's examples, being non-quantitative, cannot show any exact mathematical relationship or equation; they can only show that, the higher the

labor, the higher the price. This is an acknowledged fact, accepted also by classical economic theory. (That is, it is accepted that the higher the labor *costs*, the higher must be the selling price. It is not the raw hours of labor that make the connection, but the cost to the producer of those hours. Thus we have the phenomenon of differences in wage rates among various countries, and the transfer of jobs and manufacturing capacity to places of lower labor costs.)

What Marx really is trying to show, however, is not that market prices vary in proportion to the embodied labor, but that labor is the only determining factor. He wants to rule out rents and profits, the entrepreneurial elements if you will, and admit the validity of labor alone. By mere assumption he rejects the right of the capitalist to be compensated in the form of profit, accepting only the laborer's right to be paid his wages. This is arbitrary favoritism, not the reasoned arguments of a scientist.

Marx has set out to prove, define into existence, or merely assume his preconceived thesis. His examples attempt to focus real-world events through the prism of his theory; they attempt to superimpose his theoretical framework over events and show his theory to be at work in producing certain real-world results.

Actually, the examples or events he cites result from the much more prosaic and less exotic workings of classical theory. Supply and demand (to use two rather loose, catch-all conceptualized terms) determine market value; in many cases it is as accurate to say that the price of a commodity, for instance gold, determines how much labor can be economically invested in its production, as it is to say the amount of labor invested determines the price. Labor is a factor, but as labor costs, not as labor itself transmuting into some sort of internal ectoplasmic substance called congealed Value. Moreover, labor is not the only factor; rents and profits also apply.

Marx blandly presents the examples as if they verify his theory. Actually, where the facts as he cites them are accurate, the explanation for those facts is supplied not by his theory but by normal economics. His text in this instance is mostly an effort at indoctrinating the reader into a habit of mind of viewing events through his conceptual framework, and of supposing his theory to be the explanation for various surface facts. In this as in most instances with Marx's theory, the facts are otherwise.

Marx proceeds to a muddled conclusion: "The value of a commodity, therefore, varies directly as the quantity, and inversely as the productiveness, of the labor incorporated in it."

It doesn't vary directly as the quantity *and* inversely as the productiveness; it varies directly as the quantity, *or* inversely as the productiveness, of the labor. Those are not two different independent variables, in other words. Productivity itself is the reciprocal of the amount of labor embodied in each item, so that value can be expressed as directly proportional to the one, or inversely

proportional to the other, but not both at once. In other words; it is not V ∝ L/P, as Marx implies, but either V ∝ L or V ∝ 1/P. Perhaps that was just a momentary lapse in terminology on Marx's part, however.

A Final Example

> *"I have a theory about television."*
> *"What's that?"*
> *"I don't believe it is possible!"*
>
> > *"The Return of Edwin Carp,"* an episode of
> > "The Dick Van Dyke Show"

Marx has one more example, or an elaboration on his labor theory, to present. He says:

> A thing can be a use-value, without having value. This is the case whenever its utility to man is not due to labor. Such are air, virgin soil, natural meadows, &c.

This comes as a revelation and a shock. It offends either one's knowledge of real estate or one's knowledge of scientific methodology. The statement is not an example of the workings of Marx's theory in the real world; rather, it asserts the validity of his theory in the face of the real world, in direct contradiction of all the facts which are self-evident in the workings of market economics every day. Let us examine some of those facts.

We are informed by Marx that a natural meadow, or in modern parlance, unimproved land, has no value. Yet someone who owns such land can sell it; there is a market for such land, and there are economic dealings in such land every day. The buying and selling of land, both improved and unimproved, proceeds as a matter of course, without paying any heed to Marx's stricture or decree that such dealings are illegitimate, contradictory, or impossible. There is no mechanism preventing the buying and selling of unimproved land – lightning bolts don't strike people attempting to make such transactions, and no bureaucratic committee looks up the subject in a book (Marx's book) and says, "Sorry – Marx says such deals are inconceivable." That is, such land does have market value.

There is a market for unimproved land, and people desiring to buy or sell such land usually have a fairly good idea of what the price should be. There are, in other words, certain more-or-less determinable factors that determine a given

piece of land's market worth – location, general conditions in the market for farmland, surrounding conditions of development, and (to quote the well-known saying), again location.

In sum, the market in land, whether improved or unimproved, proceeds under rules of its own; these are the "capitalist" rules, the general workings of market economies. And they are not Marx's rules.

The facts in the case are so obvious that it seems superfluous to try to disprove Marx's statements; universal experience shows he is wrong. One author puts it this way:

> Still more obviously false from the standpoint of economic reality was the assertion [by Marx] that objects in which no work-hours have been invested have therefore no value. An oil-field, a vein of coal, a forest, on which no human hand has as yet expended one hour of labor, may nevertheless be extremely valuable...[Marx's] result was in direct contradiction to the most palpable facts of everyday experience.

Marx does address such objections. Another author describes his method of doing so, in these words:

> Have objects, in which no work-hours are embodied, really no value or price? Do not virgin forests, mines, oil-fields frequently have considerable value, and fetch a very handsome price? Here is a new decree [added by Marx]: "The price in that case is imaginary."

Marx's response, in other words, is an example of "Schumpeter's Observation of Scientific and Non-scientific Theories," which states facetiously, "Any theory can be made to fit any facts by means of appropriate additional assumptions." [22]

That is, if enough sophistries and newly-invented provisos are allowed, any theory can be preserved. The result, however, is not science.

What we have here is a dichotomy between Marx's theory and the workings of market economics; the issue is, which is to be accepted as valid. Marx reserves for his theory superior validity, asserting it here over the plain fact that there is a real-estate market for unimproved land. Marx's theory "pulls rank" over the real world.

That is, Marx's theoretical system implies as a logically-derived consequence the assertion that natural meadows have no value; no labor has been performed on them, and by the terms of his theory they have no value. This is

what he asserts in his text as reality. He will continue this method throughout his text, in opposition to the facts of the real-world market.

Marx's theory is not a description of the reality of capitalist economies; it is a separate world all to itself, a product of Marx's self-referring system of axioms and deductions. Marx is not describing market economics; he is giving us logical deductions, telling us where his axioms and theorems lead us. He is saying, "By logical deduction from my theory, it follows that unimproved land has no value." It is a statement of theory, not of fact. His system is deductive rather than inductive, and prescriptive rather than descriptive; it is not science.

As always, Marx insists on the validity of his deduced system, in preference over the merely "phenomenal" real world. In the present instance Marx sounds like an old-time radio performer who was asked to appear as a guest on a television show. His response to the invitation was, "I have a theory about television... I don't believe it is possible!" Likewise, Marx has a theory about the market in natural meadows – it is impossible. Yet whatever occurs must *ipso facto* be possible; no amount of willful logic or intransigent dogma can override that fact. The scientist's duty is to adhere to the facts, to illuminate everyday occurrences by seeking the deeper meaning within the facts – not to overrule the facts.

More specifically, the problem with Marx's analysis is that he is working with a fictitious, contrived definition of the word "value." Rather than market value in the normal sense of the term, meaning the price receivable for an item, Marx is dealing with "value" as "the amount of embodied, crystallized, homogeneous labor socially necessary"; natural meadows have none of that. It is this mythological entity, or non-entity, that Marx is exploring for us.

And the problem is in what kind of statements Marx is making – the source of their authority. Throughout the rest of his text, Marx will make statements like the one above, which seem to apply to the workings of one or another element in capitalist economies. But they are not really descriptions of objective reality; they are deductions within Marx's closed formal system, telling what his preceding theorems predict or imply about future cases. His statements refer to his theoretical system and what can be deduced within it, not to objective capitalist economics as such. This should always be kept in mind.

If value is defined as "embodied labor," it may indeed be reasonable to conclude that natural meadows have no value. Likewise, Humpty-Dumpty's exclamation, "There's glory for you!" may make sense, if "glory" is defined as "a nice, knock-down argument." It may be reasonable to argue that tigers are native to North America if the tiger is defined as "a large tawny-colored animal of the cat family, native to mountainous regions of the American West." But this kind of sophistry with words resolves nothing. Marx's task is to explore capitalism,

the market economy, and value in the normal sense of the word; not to invent special, trick entities which have no bearing on any real-world phenomenon.

Marx defines value as embodied labor, and as a result he can infer by deductive logic that natural meadows have no value. But deductions from chosen axioms do not constitute science – that is the method of Scholasticism. In fact, natural meadows do have value; they are bought and sold every day. That is a good indication that Marx's definition of value is somehow ill-conceived and inadequate to the task of shedding light on the actual world of capitalistic, i.e., normal, economics.

Probably the original purpose of Marx's definition of value was purely and simply to define the capitalist's contribution to value out of existence, proving him to have no legitimate claim to profits or rents because he does not contribute labor, that is, value, to the economy. Thus Marx's capricious fiddling with words was intended from the outset to adjudge the capitalist an "exploiter" by pre-determined force of logic.

Related to this issue, it bears stating that natural meadows not only have value, they have value *by rights*. That is, it is not an aberration or an immoral or socially condemnable fact that they have value. Rather, it is entirely normal and proper that they do so. There has been a considerable amount of criticism, from various progressive or right-thinking social arbiters, to the effect that no one should have a right to own land, that "property is theft," and so on. (Much of this is simply a reflection of Marx's views, expressed in other terminology.)

Apart from the merely fashionable condemnation of capitalists and "the rich," there is another stream to this criticism which might for short be called the primitivist view. Modern industrial society has for instance been frequently compared unfavorably to the manner of life of American Indians. Indeed, the use of land which results from its private ownership, with the opportunity for profit from its development or "exploitation," is far more conducive to the abuse and ruining of the natural environment than the use of land as practiced by tribal or hunter-gatherer types of societies. The latter manner of life would also seem more peaceful and in tune with nature; each person would live more or less in the manner previous generations had lived, with no need to find a job and no room for grasping ambition.

Certain objections could be made to such idyllic pictures. Non-ownership of land is characteristic of hunter-gatherer societies; that is to say, it pertains to "primitive," in the sense of non-economic or pre-economic, subsistence societies. On the other hand, capitalistic societies, or societies on a level of a higher order of complexity, are probably impossible without ownership of land. Moreover, a return to a hunter-gatherer society is probably impossible, or would be disastrous for the size of populations there are in the world today. Such societies can

probably serve as no model for us today, however much we might like certain features of them.

There is in Marx and his followers a sort of overdeveloped fastidiousness, a "Victorian" prudery (though that term is unfair to the Victorians) with regard to economic matters like ownership of land. But ownership of land, and rental income derived from it, should not be considered unnatural, aberrational, or immoral. Such ownership is necessary (a point that should carry great weight with Marxists, but does not).

Far from being an aberration, it is part and parcel of complex societies – "civilization" itself. And far from being immoral, it is the rejection of it, and the thievery called "expropriation of the expropriators," which is immoral. "Thou shalt not steal" – that is a sounder guide to morality than Marx's decrees.

Final Comments

In sum, the value which is attached to natural meadows is not impossible and not aberrational.

To sum up with regard to Marx's examples, he manages to make his theory mimic the workings of supply and demand fairly closely, but in the end the two are distinguishable. He is fairly successful at fitting real-world events into the conceptual framework of his own theory, and making that theory seem to be the active agent behind those events. But his theory is distinguishable from reality, and the fallacies within his examples can be discerned.

Marx is not describing the real world, not telling what happens on the market with regard to value – with regard to the value of "natural meadows," for instance. Rather, he is expanding on the logical consequences of his theory – he is giving us deductions from his axioms. Marx is not really telling his readers how value is determined, in a cause-and-effect sense; he is telling how it is *derived*, i.e., deduced by abstract logic from chosen axioms.

The "value" which Marx is expounding upon is not even market value, or value in the genuine sense of the word. Rather it is value as "congealed inner labor," an entity or non-entity which has no bearing or influence on the real capitalistic world. The concept is fictitious, and Marx is unsuccessful in making actual happenings concerned with genuine, market value, appear to be governed by the rules and theories ascribed to his private, fictitious value.

Thus his method is not descriptive science; it is deductive, being based on logical deductions from chosen premises. And it is prescriptive, in that Marx declares his logical inferences, by fiat, to be reality and to overrule mere events in the "phenomenal" world.

Hence it is important to realize that when Marx avers that natural meadows have no value, he does not mean they have no value in the real world of capitalist economies (which he professed to describe). Rather, he means they have no value in the world of his axioms and theorems, as a matter of logical deduction in his theoretical world. This theoretical world, however, he does represent to be reality, or more real than mere "phenomenal" reality.

The phenomena and laws and assumptions which make up Marx's labor theory constitute a separate, fantasy world completely divergent from the real one. The real world doesn't govern itself by the rules of his fantasy world, and the situations he describes in his examples are not illustrative of the workings of his theoretical system, but of the real economic realm, which his theory attempts to mimic or impersonate. But where his theory meets actual reality, in real-world events concerning market value, Marx is finally unable to make the two merge seamlessly into one coherent whole.

Notes

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