THE MISINTERPRETATION OF MARX'S THEORY OF VALUE

STEVE KEEN

I. INTRODUCTION

The "technical" interpretation of Karl Marx's theory of value, which asserted that the concept of use-value played no role in his economics, has in recent years been shown to be ill-founded. In particular, R. Rosdolsky (1977) and S. Groll (1980) have established the importance that Marx attached to the concept of use-value in his theory of value, while I have shown that the use-value is an essential component of his analysis of the commodity, and that when properly applied, that analysis invalidates the labor theory of value (Keen 1993). This modern re-evaluation of Marx raises the question of how the traditional view developed in the first place. R. Hilferding aside, the answer does not paint a complimentary picture of the scholarship of either friend or foe of Marx in the debate over his theory of value.

II. WAGNER

Though the main proponents of the technical interpretation of Marx were the professedly Marxian scholars Paul Sweezy, Ronald Meek and Maurice Dobb, this school in fact had its genesis in critiques of Marx by conservative opponents. The first of these was the "professorial socialist" Adolph Wagner, who argued in his 1879 Grundlegung that Marx had eliminated use-value from his analysis. Marx was aware of this interpretation of Capital, and his Marginal Notes on A. Wagner (Marx 1879) constitute a polemic against it. After dismissing Wagner's conclusion that value is only use-value as "driveling," he presented his dialectical vision of the commodity as a union of use-value and exchange-value, and then forcefully observed that "only an obscurantist, who has not understood a word of Capital, can conclude: Because Marx

University of New South Wales, Australia. The author would like to thank J. E. King and two anonymous referees for helpful comments and criticisms of earlier drafts of this article.

Journal of the History of Economic Thought, 15, Fall 1993. ©1993 by the History of Economics Society.

in a note to the first edition of *Capital*, overthrows all the German professorial twaddle on 'use-value' in general,...—therefore, *use-value* does not play any role in his work" (ibid, p. 198-99).

Marx provided an important clue to understanding the statement he referred to above in the Contribution (Marx 1859, p. 28). Use-value, while outside economic analysis in general, belongs to the sphere of political economy only when it is itself a determinate form. He explained that "whoever satisfies his own need through his product, does create a use-value, but not a commodity. In order to produce a commodity. he must not only produce a use-value, but use-value for others, social use-value. So use-value itself—as the use-value of the 'commodity'-possesses an historically specific character" (Marx 1879, p. 199). At the end of that same paragraph he provided a commentary on the method by which he derived the existence and source of surplus value, stating "that surplus value itself is derived from a 'specific' use-value of labor power which belongs to it exclusively" (ibid., p. 200). Had Marx's critique of Wagner seen timely publication, it is conceivable that the traditional Marxian school would never had developed. As it was, Wagner's views had no direct influence within Marxist circles, but would perhaps have had an influence upon Marx's major conservative critic, Eugen von Böhm-Bawerk.1

III. BÖHM-BAWERK

Böhm-Bawerk's initial commentary on Marx in Capital and Interest (Böhm-Bawerk 1890) does refer to the role of use-value in deducing the source of surplus value. Having stated the problem of surplus as Marx perceived it, he observed that "the solution Marx finds is this, that there is one commodity whose use-value possesses the peculiar property of being the source of exchange-value." He also noted that the value of labor power is for Marx "the labor time necessary for its reproduc-

1. Böhm-Bawerk's published works do not verify this, however, and in his discussion of Marx (Böhm-Bawerk 1890, pp. 367-94), Böhm-Bawerk specifically credits K. Knies, stating that "Most of the other attempts to criticise and refute Marx's work are so far below that of Knies in value that I have not found it useful to refer to them" (ibid., p. 367, n. 1). However he referred to Wagner extensively and favorably in Capital and Interest, with references to Wagner's Grundlegung, the work which Marx so vehemently castigated. Thus, though Wagner's interpretation had a profound expurgative effect on Marx, it cannot be shown to have a direct lineage to the analysis of either friend or foe of Marxism. The title of fountainhead of the traditional interpretation must instead go to Böhm-Bawerk.

tion," and that "if the capitalist has completed this purchase [bought labor power for a day], the use-value of the labor power belongs to him" (ibid., pp. 372-73). He accepted that on Marx's premises, this "peculiar property" is indeed restricted to labor power, and turned to attacking the allegation that labor is the only source of value.

By the time he composed the widely-read Karl Marx and the Close of his System (Böhm-Bawerk 1896), Böhm-Bawerk had apparently forgotten that Marx's proof of the source of surplus value had initially employed the concept of use-value. Instead he conformed to the precedent set by Wagner, arguing that use-value played no role in Marx's economics.² His approach was as a representative of the emerging marginalist school, which gave pride of place to utility in the determination of value. To this school, Marx's statement in Capital that "the exchange of commodities is evidently an act characterized by a total abstraction from use-value" (Marx 1867, p. 45) appeared as an unsupported and unwarranted assertion, and as a direct challenge to the marginalist theory of value. It is little wonder then that Böhm-Bawerk directly attacked that assertion, rather than taking it for granted and checking the logical consistency of Marx's application of it.³

Böhm-Bawerk began by disputing the two bases of the classical treatment of the commodity, that value reflects effort, and that exchange involves the transfer of equivalents. To the first he argued that "value and effort...are not ideas so intimately connected that one is forced immediately to adopt the view that effort is the basis of value" (Böhm-Bawerk 1896, p. 65), while the second he countered with the proposition that, for exchange to happen, some gain must occur to each party—therefore "exchange...points rather to the existence of some inequality...which produces the alteration" (ibid., p. 68).

In Böhm-Bawerk's view, Marx arrived at the opinion that use-value plays no role in the determination of value, and the conclusion that labor power is the only source of value, via a method of exclusion. Böhm-Bawerk observes that this procedure is "somewhat singular.... It strikes one as strange that instead of submitting the supposed character-

- 2. "The fundamental proposition which Marx puts before his readers is that the exchange value of commodities—for his analysis is directed only to this, not to value in use—finds its origin and its measure in the quantity of labor incorporated in the commodities" (Böhm-Bawerk 1896, p. 66).
- 3. Interestingly, Schumpeter commented on Böhm-Bawerk that his was "an advocate's mind. He was unable to see anything but the letter of the opponent's argument and never seems to have asked himself whether the offending letter did not cover some element of the truth" (Schumpeter 1954, p. 847, n. 10).

istic property to a positive test,...Marx tries to convince us that he has found the sought-for property, by a purely negative proof, by showing that it is not any of the other properties" (ibid., p. 69). The first step in this negative methodology was to exclude from the field of analysis the products of nature, giving the term "commodity" a much narrower meaning than the term "value in use." Böhm-Bawerk argues that the "apparently harmless" opening sentence of *Capital* is in fact "quite wrong...if we take the term 'commodity' to mean products of labor, which is the sense Marx subsequently gives to it. For the gifts of nature, inclusive of the soil, constitute...a very important element of national wealth" (ibid., pp. 71-72). With these included in his analysis, Böhm-Bawerk asserts, Marx could not have concluded that work is the common factor, because there are objects with exchange-value which incorporate no work. Böhm-Bawerk argues that these natural objects have no "labor-value," but do have the general concept of utility in common, and thus utility must be a factor in price determination.

His proposition is that "the special forms under which the values in use of the commodities may appear...is of course disregarded, but the value in use of the commodity as such is never disregarded" (ibid., p. 74). In other words, Böhm-Bawerk differed from Marx here because the marginalist school had developed the concept of 'abstract' and commensurable use-value as a common attribute of goods, whereas to Marx use-value was concrete, specific to each commodity, and incommensurable. He continued that, having already improperly excluded use-value as a potential "common substance," Marx next ignores such properties as being "scarce in proportion to demand," "subjects of demand and supply," "appropriated," "natural products," "that they cause expense to their producers" (meaning that they have a price, as distinct from a value). He concludes:

Why then, I ask again today, may not the principle of value reside in any one of these common properties as well as in the property of being products of labor? For in support of this latter proposition Marx has not adduced a shred of positive evidence. His sole argument is the negative one, that the value in use, from which we have happily abstracted, is not the principle of exchange-value.... If Marx had chanced to reverse the order of the examination, the same reasoning which led to the exclusion of the value in use would have excluded labor; and then the reasoning which resulted in the crowning of labor might have led him to declare the value in use to be the only property left, and therefore to be the sought-for common prop-

erty, and value to be "the cellular tissue of value in use" (ibid., pp. 76-77).

IV. HILFERDING, BOUDIN AND RUBIN

The major rejoinder to Böhm-Bawerk's critique was made by Hilferding. Between him and Böhm-Bawerk yawned the chasm separating the Marxist and neoclassical perspectives on capitalism. Hilferding's first shout across this gap was to deny Böhm-Bawerk's concept of abstract utility—with this denial based as much on the classical school's general approach to capitalism as on the distinctive approach taken by Marx. From this perspective, capitalism was perceived as the production of commodities to maximize exchange-value, whereas Böhm-Bawerk's neoclassical school modeled capitalism as the exchange of given commodities to maximize utility. From the classical/Marxian viewpoint, the individual capitalist produces an abundance of one commodity, "of which one specimen at most can possess a use-value for him" ((Hilferding 1904, p. 126), so that he may exchange it for exchange-value, or money. Under previous social systems, when goods were produced primarily for their utility, and exchange was "no more than an occasional incident wherein in superfluities only are exchanged" (ibid., p. 126), goods confronted one another solely as use-values, and differentials in use-value may have motivated the consideration paid. But under capitalism, goods are not produced for their utility to the direct producer but for their exchange-value, and exchange involves one party giving what is for him a non-use-value in return for exchange-value. Hilferding quotes Marx to the effect that, in this capitalist circumstance, "the distinction becomes firmly established between the utility of an object for the purposes of consumption, and its utility for the purposes of exchange. Its use-value becomes distinguished from its exchange value" (ibid., pp. 126-27). Use-value, then, plays no role in determining exchange-value.

Up to this stage, while Hilferding has denied a role for the use-value of a commodity in determining its exchange-value, he has not denied a role for use-value in economics itself. That step apparently occurs when he turns to Böhm-Bawerk's argument that there are other common qualities of commodities apart from being products of labor. Hilferding accepts that Marx reached the proposition that labor was the sole common property of commodities by a process of exclusion, but argues that this was from the perspective that political economy was a social science of the relations between people; for this reason he justifies both the exclusion of use-value, and of all other characteristics of

commodities save their labor content. Reiterating the proposition that only commodities have both use-value and value, Hilferding states that the term commodity is therefore "an economic term; it is the expression of social relationships between mutually independent producers.... As a natural thing, it is the object of natural science; as a social thing, it is...the object of political economy.... [T]he natural aspect of the commodity, its use-value, lies outside the domain of political economy" (ibid., p. 130).

His final sentence paraphrases Marx from the *Contribution*, but omits the crucial qualifying sentence that follows immediately, that use-value "belongs in this sphere only when it is itself a determinate form" (Marx 1859, p. 28). The subsequent sentence distinguishes between the role that use-value has in terms of the characteristics of commodities in general, when use-value is of no economic relevance, and the role it has in terms of commodities which are inputs to production, when use-value is, to Marx, of crucial economic significance. Having allowed only social issues to determine the social relation of exchange, Hilferding writes that "A commodity, however, can be the expression of social relationships only in so far as it is itself contemplated as a product of society.... But for society...the commodity is nothing more than a product of labor" (Hilferding 1904, pp. 130-31). Thus labor must be the principle behind value.

It appears throughout Hilferding's rejoinder that he accepted the proposition that Marx denied a role for use-value in economics. However, strictly speaking Hilferding rejected only the propositions that utility determines value, and that use-value is the sole common property of goods. Even the very sentence where Hilferding states that use-value plays no role in political economy is in the context of a denial that the use-value of a specific commodity plays any role in determining the exchange-value of that same commodity. This in itself does not rule out use-value from playing a part in the logic of Marxian analysis, and in fact Hilferding masterfully employs the concept of use-value when attacking Böhm-Bawerk's critique of the reduction of skilled to unskilled labor.

Unfortunately, subsequent Marxists missed these (admittedly well-hidden) subtleties in Hilferding's argument, and enshrined instead the proposition that use-value plays no role in Marxian analysis, thus re-

^{4.} This passage was the one Marx cited when describing Wagner as an "obscurantist" for arguing that Marx dismissed use-value from political economy (Marx 1879, p. 198-99).

moving from the perceived corpus of Marx's work the concept which Marx himself thought represented his major advance over Ricardo (Marx 1867, p. 483). While Boudin (1907) does not credit Hilferding, his arguments that "it is its exchange-value that makes a thing a commodity.... The use-value of a thing...does not depend on the social form of its production,...is a purely subjective relation between the thing and the person who uses it,...does not come within the sphere of political economy" (Boudin 1907, p. 55) are similar in spirit (and words) to Hilferding's incomplete paraphrase of Marx (Hilferding 1904, p. 130), and are as easily undermined by Marx's observation in Wagner concerning the "historically specific character" of the use-value of the commodity (Marx 1879, p. 199). Like Hilferding, he also omits, when quoting the Contribution, the crucial sentence that use-value belongs in the sphere of political economy "only when it is itself a determinate form" (Boudin 1907, p. 56; Marx 1859, p. 28).

I. I. Rubin, who does credit Hilferding (Rubin 1928, p. 61), was led astray in his appreciation of Marx's analysis of commodities by his otherwise valuable focus on the reification of social relations under capitalism. His labelling of the use-value of a commodity as its "material-technical" aspect, and its value as its "social form," led him to dismiss Marx's discussion of use-value and exchange-value as mere "surface...phenomena," behind which lay the determining force of the distinction between concrete and abstract labor (ibid, p. 71, 140), whereas to Marx the distinction between concrete and abstract labor was one manifestation of the general laws of commodities (Marx 1867, p. 188, 506; 1857, pp. 296-97).

V. SWEEZY

Elements of all the above misinterpretations of Marx can be found in the work which gave the technical school its widest currency, Sweezy's *The Theory of Capitalist Development* (1942). In composing his "reasonably comprehensive analytical study of Marxian political economy" (ibid., p. v), Sweezy was able to draw on the 1934 Marx-Engels-Lenin Institute German edition of *Capital*, which included as an Appendix the

5. "Marx begins his analysis with commodities, in which he distinguishes two sides: the material-technical and the social (i.e., use-value and value). Similarly, two sides are distinguished by Marx in the labor embodied in commodities. Concrete and abstract labor are two sides (material-technical and social) of one and the same labor embodied in commodities. The social side of this labor, which creates value and is expressed in value, is abstract labor" (Rubin 1928, p. 140).

Marginal Notes on Adolph Wagner, and Kautsky's German edition of The Theories of Surplus Value (Sweezy 1942, p. 386, n. 8). Despite the wealth of material contained in those works—and especially in Wagner-on the role of use-value in Marx's economics. Sweezy argued unambiguously that use-value was not part of Marx's methodology. Ouoting the same section of the Contribution that Hilferding paraphrased, Sweezy quickly disposed of the role of use-value in Marx's economics, emphasizing that use-value was applicable to all societies. and hence not a determinate characteristic of capitalism: "'Every commodity,' Marx wrote, 'has a twofold aspect, that of use-value and exchange-value....' Use-value is an expression of a certain relation between the consumer and the object consumed. Political economy, on the other hand, is a social science of the relations between people. It follows that 'use-value as such lies outside the sphere of investigation of political economy'" (ibid., p. 26, citing Marx 1859, p. 28). As R. Rosdolsky pointed out (1977, p. 74), this quote significantly distorts Marx by omitting the subsequent clarifying sentence, the same one omitted by Hilferding.

Having dismissed use-value in general from political economy, Sweezy next considered the specific use-value of labor-power, which he identified with the useful characteristics of the commodity which labor produces: "To the commodity as a use-value corresponds labor as useful labor.... The labor, whose utility is thus represented by the value in use of its product, or which manifests itself by making its product a use-value, we call useful labor" (Sweezy 1942, pp. 28-29). With this paraphrase of Marx, Sweezy dismissed the economic importance of the use-value of labor power, by associating it with the useful properties of the product that labor eventually produces, rather than with the creation of value for the capitalist. He concluded that just as the use-value of a commodity is irrelevant to economics, so too is the specific character of labor power (its use-value, according to Sweezy) irrelevant to value creation. What matters is labor in the abstract.

The final issue to consider was the value contribution of the nonlabor inputs to production. Here Sweezy employed a logic of exclusion of the kind which Böhm-Bawerk attributed to Marx. Having eliminated

^{6.} In fact the last sentence is a direct quote from p. 49 of *Capital*, volume I. The previous sentence paraphrases the section in which Marx describes the "two-fold nature" of the "labor contained in commodities" as "the pivot on which a clear comprehension of political economy turns." In that paragraph he discusses the nature of the commodity as "a complex of two things—use-value and exchange-value" (Marx 1867, pp. 48-49). See Keen 1993 for a discussion of the use-value of labor power.

exchange as a possible source of surplus, Sweezy in turn dismissed raw materials, buildings, and machinery, finally arriving at "only one possibility," that labor power is the source of surplus value:

It seems equally obvious that the materials entering into the productive process cannot be a source of surplus value.... The same is true, though perhaps less obviously, of the buildings and machines which are utilized in the productive process.... It is, of course, true that materials and machinery can be said to be physically productive in the sense that labor working with them can turn out a larger product than labor working without them, but physical productivity in this sense must under no circumstances be confused with value productivity. From the standpoint of value there is no reason to assume that either materials or machinery can ultimately transfer to the product more than they themselves contain. This leaves only one possibility, namely that labor power must be the source of surplus value (ibid., pp. 60-61).

Sweezy then turned to an analysis of the particular characteristics of this commodity's exchange with capital to explain how surplus is appropriated, making the familiar case that the value of the laborer amounts to his means of subsistence, which may take him six hours of labor to replicate, while his work for the capitalist will extend beyond this minimum (ibid., p. 61). Sweezy quoted a passage from Marx to support his interpretation: "Every condition of the problem is satisfied, while the laws that regulate the exchange of commodities, have been in no way violated. For the capitalist as buyer paid for each commodity, for the spindle, and the labor power, its full value. He sells his yarn...at its exact value. Yet for all that he withdraws...more from circulation than he originally threw into it" (ibid., p. 61). In fact, this quote omits, without admission, one crucial sentence which indicates that, contrary to Sweezy's assertion, Marx used the concept of use-value to show that labor power was a source of surplus value. The actual quote is as follows; the words omitted by Sweezy are highlighted in holdface:

Every condition of the problem is satisfied, while the laws that regulate the exchange of commodities, have been in no way violated. Equivalent has been exchanged for equivalent. For the capitalist as buyer paid for each commodity, for the cotton, the spindle and the labor power, its full value. He then did what is done by every purchaser of commodities; he con-

sumed their use-value. The consumption of the labor power, which was also the process of producing commodities, resulted in 20 lbs of yarn, having a value of 30 shillings. The capitalist, formerly a buyer, now returns to market as a seller, of commodities. He sells his yarn at eighteen pence, which is its exact value. Yet for all that he withdraws 3 shillings more from circulation than he originally threw into it (Marx 1867, p. 189).

The first omitted sentence is not crucial; neither are the third or fourth. However, the second clearly links Marx's derivation of surplus value to his general analysis of commodities: "He then did what is done by every purchaser of commodities; he consumed their use-value." The unacknowledged omission of this sentence can hardly be excused as accidental, especially since two quite minor omissions are acknowledged. It could also be argued that Sweezy may have simply excluded what he saw as confusing Hegelian terminology. While this would be acceptable in a paraphrase, it is not acceptable in a purported quote-again, especially since that quote acknowledges two quite minor omissions. Buttressed with these excisions, Sweezy was able to comfortably dismiss the value-creating capacity of non-labor inputs to production on the basis of a "negative proof," while the same erroneous conclusion caused Marx such difficulty in Capital, when reasoning in terms of his use-value/exchange-value dialectic (see Marx 1867, pp. 193-99; Keen 1993, pp. 112-15).

Rosdolsky comments that Sweezy's failure to appreciate the role of use-value in Marx's logic is "even less forgivable [than Hilferding's], as not only did he have access to the Theories of Surplus Value, but also the Marginal Notes on A. Wagner, where Marx discusses the role of use-value in his economic theory in great detail" (Rosdolsky 1977, p. 75). And it does defy comprehension that anyone could read Wagner and not perceive Marx's condemnation of the proposition that use-value plays no role in his economics. Yet this, apparently, is what Sweezy did. Sweezy quoted from Wagner twice in The Theory of Capitalist Development. The quotes themselves were relatively trivial (though the second does discuss Marx's commodity analysis, and mentions the concept of use-value), but the second in particular is surrounded by strident denunciations of Wagner for asserting that use-value plays no role in Marx's economics—precisely the case which Sweezy himself was making. Sweezy's excerpt is sandwiched between Marx's satirical comment that "this same Wagner places me among the people according to whom 'use-value' is to be completely 'dismissed' 'from

science'" (Marx, pp. 197-98), and the previously cited remark describing as "an obscurantist" anyone who concluded that "therefore, use-value does not play any role in his work." The first comment precedes Sweezy's quote by two short sentences, the latter follows it by half a paragraph. It is difficult to comprehend how Sweezy could have missed these statements; the best which can be presumed is that he simply ignored them.

VI. MEEK AND DOBB

Ronald Meek and Maurice Dobb complete the ruling triumvirate of the technical interpretation of Marx. While Meek can be criticized for having continued with the proposition that Marx did not employ the concept of use-value, despite the copious evidence to the contrary available to him, his work is nonetheless the most considered of the technical school. Dobb's grandly titled *Theories of Value and Distribution since Adam Smith* (Dobb 1973), on the other hand, marks the apogee of disregard for the foundations of Marx's theory of value.

Meek's inability to recognize the role use-value plays in Marx's economics appears to emanate from the strength of his historical method. More so than Sweezy or Dobb, he emphasizes Marx's debt to the classical economists who preceded him. An important part of that tradition was the proposition that use-value plays no role in determining exchange-value. Since Meek's purpose in writing *Studies* was to convince "sincere but skeptical" modern day economists, bred on the concept of marginal utility, that Marx's scheme had merit (Meek 1973, p. 7), it is to some extent understandable that he failed to see how Marx's application of his concept of use-value transcended both the dismissal of use-value by his forebears and its trivialization into subjective utility theory by his vulgar foes.

Meek's treatment of Marx's proposition that "the exchange of commodities is evidently an act characterized by a total abstraction from use-value" (Marx 1867, p. 45) implies that he sees this as a linear descendant of Smith's "diamond and water" statement. Meek argued that this proposition and the labor theory of value itself are essentially unprovable, at any rate by "a logical argument of the type used to prove a theorem in geometry" (Meek 1973, p. 164). The proposition that use-value and exchange-value are unrelated is unprovable. It is simply an axiom of the classical approach to economics, which can be justified as David Ricardo justified it, by appeal to observable facts and to related propositions—such as the presumption of constant or increasing returns to scale, and the effect of competition on long run price—or as

Meek justified it in terms of the light it casts upon important problems, but can never be conclusively proved. However Marx erroneously believed that he had proven the labor theory of value as geometers make their proofs, by deriving it from the set of axioms which made up his analysis of commodities, when in fact these axioms allow the disproof of the labor theory of value (see Keen 1993).

Like Sweezy before him, Meek was to some extent justifiably diverted from developing a proper understanding of the Marx's concept of the use-value of labor power—i.e., that labor power's use-value to the capitalist is its ability to produce exchange-values—by Marx's confusing discussion of abstract and concrete labor, and his ambiguous statement as to what the "pivot" of political economy was. Unlike Sweezy, however, Meek correctly quoted Marx on the issue of the source of surplus value, that it emanated from a commodity "'whose use-value possesses the peculiar property of being a source of value'" (Meek 1973, p. 183). In Dobb's *Theories...*, Marx's insights into the role of use-value in

In Dobb's *Theories...*, Marx's insights into the role of use-value in economics are lost completely. One could read it and believe that Marx did not have a concept of commodities, let alone of use-value, since neither concept is examined at all in his discussion of Marx. The word "commodity" does not appear in the 23 page index to his 272 page work, while exchange-value occurs only once and use-value twice. The words are not referenced at all in the section on Marx, while the phrase "use-value" occurs there just once, and then only in a commentary on Marx's Ricardian socialist predecessors (Dobb 1973, p. 146). Like many of his contemporaries, Dobb appeared to have been sidetracked by the complexities of the transformation problem from any consideration of the foundations from which the problem itself emanated. In Dobb's defense, however, it should be noted that he published in the year that an English edition of the *Grundrisse* first became available. He cannot be criticized for not consulting that fundamental reference, though his treatment of *Capital*, *Wagner* and *The Theories of Surplus Value* remains deficient.

VII. THE REDUCTION OF SKILLED LABOR TO UNSKILLED LABOR

The historiography of the technical interpretation of Marx initially appears to be straightforward. It is obvious that Böhm-Bawerk misinterpreted the role of use-value in Marx's economics, while it appears that Hilferding mirrored this in his defense of Marx, thus letting the misinterpretation take root in the Marxian camp, to be subsequently popularized by Sweezy. From then on, subsequent scholars of Marx—

up until the publication of the *Grundrisse* and the works of Rosdolsky and Groll—simply repeated the errors of their forbears. However, this relatively simple interpretation is complicated by the issue of the reduction of skilled labor to unskilled: despite his apparent protestations that use-value lies outside the realm of political economy, Hilferding explicitly employed the concept to solve the problem. Hilferding's method and results, when compared with those of Sweezy and Meek, provide an interesting illustration of the superiority of the economic, dialectical approach over the technical, labor theory of value approach.

Discussing the reduction of skilled labor to unskilled labor, Böhm-Bawerk quotes Grabski as saying that "an hour of skilled labor contains several hours of unskilled labor." However, Böhm-Bawerk argues that if the labor which went into educating a workman simply reappeared in the product, then "there could only be actually five hours of unskilled labor in one hour of skilled labor, if four hours of preparatory labor went into every hour of skilled labor" (Böhm-Bawerk 1896, pp. 84-85). Thus, according to Böhm-Bawerk's interpretation of Marx's reasoning, the ratio of skilled labor to unskilled labor would in practice be at most of the order of two, and not, as Marx muses, of the order of six (Marx 1867, p. 192).

Marx did not actually consider the mechanism by which skilled labor is reduced to unskilled labor, in Capital or any other work. Nonetheless, Böhm-Bawerk accurately characterizes the reasoning subsequently used and the results reached by Sweezy and Meek, where they effectively followed the same procedure as Marx employed in considering the value contribution of the non-labor inputs to production. though a recent critic (Harvey 1985) attributes this technique to Hilferding, it in fact originated with Sweezy. P. Harvey's argument that Hilferding used the same method is based on an inadequate reading of Hilferding's work. He says that for Hilferding, "skilled labor is seen as an expenditure of simple labor to which is added (1) a proportionate share of the worker's own past simple labor spent learning the skill, and (2) a proportionate share of the direct and indirect labor of others who contributed to the training process.... In Hilferding's words, an expenditure of skilled labor 'signifies the expenditure of all the different unskilled labor which are simultaneously condensed therein'" (Harvey 1985, pp. 86-87). Harvey calls this as a "brief description" of Hilferding's method, which indeed it is. The full quote from Hilferding is: "The labor of the technical educator thus transmits, not only value (which manifests itself in the form of a higher wage), but in addition its own value-creating power. The formative labors are therefore latent as far as society is concerned, and do not manifest themselves until the

skilled labor power begins to work. Its expenditure consequently signifies the expenditure of all the different unskilled labors which are simultaneously condensed therein" (Hilferding 1904, p. 145).

The opening sentence indicates that Hilferding distinguished between the transmission of the value of the education, and the transmission of its value-creating power-its use-value. To explain how education can increase both the value of skilled labor and also the value-creating power of that labor—thus enabling an hour of skilled labor to produce much more value than an hour of unskilled labor-Hilferding refers to education transferring both value and use-value to the student. He first hypothetically reduces the labor of the tutor to "a number of unskilled labors." Then in an expression which demonstrates the proper application of Marx's use-value/exchange-value dialectic, he characterizes the valuecreating power as the use-value of the technical educator: training "thus creates on the one hand new value and transmits on the other to its product its use-value—to be the source of new value" (ibid., p. 145). Hilferding thus gives use-value a specifically economic role as the motivation for training labor in the first place—to increase its valuecreating capacity. He also completely separates the quantitative valuation of this use-value from the cost of training, its exchange-value. This analysis thus allows education to be an additional source of surplus value—an insight which eluded Sweezy and Meek. Hilferding is thus comfortably able to conclude that skilled labor is worth multiples of unskilled labor in value-creation terms. It is instructive to contrast Hilferding's treatment of the reduction with that followed by Sweezy and Meek, since Hilferding illustrates the correct application of Marx's dialectic, while the others show the consequences of approaching the issue armed solely with the belief that labor is the only source of value.

Sweezy reduces skilled labor to a multiple of unskilled labor by a simple addition of the laborer's training time to his working time. This results, as Sweezy's example attests, in a very limited ratio between the value of a skilled laborer and an unskilled one. A skilled worker, says Sweezy, "expends in production not only his own labor...but also indirectly that part of the labor of his teachers.... If the productive life of a worker is, say, 100,000 hours, and if into his training went the equivalent of 50,000 hours of simple labor (including his own efforts in the training period), then each hour of his labor will count as one and a

half hours of simple labor" (Sweezy 1942, p. 43).⁷ Meek likewise argues that Marx

was simply saying (a) that the value of the skilled labor power was higher because it had cost more labor to produce; and (b) that because it had cost more labor to produce, it was able to create a product of a higher value.... If p hours is his expected productive life, and t hours of simple labor have been expended upon him and by him during the training period, then when he starts work each hour of his labor will count as l + t/p hours of simple labor" (Meek 1973, p. 172).

Both Meek and Sweezy succumb to the problem mentioned by Böhm-Bawerk, namely that if one simply sees education as transferring the hours spent in training into an identical number of hours in work, it is impossible to account for the significantly higher output of skilled labor. In Meek's algebraic expression, t would need to be five times p for skilled workers to be as many times more productive than unskilled as Marx assumes. Sweezy uses a very low multiple compared to that nominated by Marx, but even this entirely arbitrary ratio is unwarranted. If one takes the simplest and most intensive example of training, a four year one-on-one apprenticeship, both his example hours and his hypothetical ratio are unrealistic. With a 48 week year and a 40 hour week, total training hours for both trainer and apprentice sum to 15,360. If the average working life was 40 years, the educated apprentice would clock up a further 76,800 hours of labor. This results in a pitiful skilled labor to unskilled ratio of 1.2 to 1. An accurate quantification of the Sweezy/Meek conversion requires that the input of the trainer be counted as skilled input (as Hilferding acknowledges in a convoluted manner), which results in a slightly higher ratio. The equations needed to solve the erroneous Sweezy/Meek reduction of skilled labor to unskilled are as follows:

$$TT = (SP + TP) \times TH$$

 $UWH = H \times W \times UY$
 $SWH = H \times W \times SY$

7. Rubin, who similarly misinterpreted Hilferding's explanation of the reduction, added the twist that the labour of unsuccessful students should also be added to the equation—which at least gives the possibility of a higher ratio (Rubin 1928, p. 165).

$$SP = \frac{SWH + TT}{UWH}$$

$$TP = \frac{SP + 1}{2}$$

where TT = Training time (in units of unskilled labor time). SP = Skilled labourer productivity. TP = Trainee productivity in units of unskilled labor per hour. The trainee is assumed to start at the productivity of an unskilled labourer and to rise linearly to the productivity of a skilled labourer over the training period. TH = Total Hours of Training. UWH = Lifetime Unskilled working hours. SWH = Lifetime Skilled working hours. H = Working hours per week. W = Working weeks per year. SY = Skilled labor years of work. UY = Unskilled labor years of work.

With the values suggested above, these equations give a skilled to unskilled productivity ratio of 1.2105: 1. The ratio rises if the value of the means of production used in education are added, but it still falls far short of the productivity ratio assumed by Marx. Thus according to the Sweezy/Meek analysis, skilled labor is worth in the region of 25 per cent more than unskilled labor to the capitalist. Böhm-Bawerk's comment that this is well below the actual productivity advantage of skilled labor over unskilled labor is all the more valid today than in his time. Using Hilferding's method, the training inputs will determine the wage paid to skilled labor,8 but the additional productivity of the skilled laborer—the use-value of the education imparted—is independent of the cost of education, and the "value-creating power" of education can only be determined ex-post. Skilled labor can therefore add much more value than the education cost—which as Hilferding points out means that education can be a source of additional surplus value. In contrast, as Harvey observes, the Sweezy/Meek characterization of education echoes Marx's portrayal of machinery as "unproductive" in that it simply preserves value, rather than increasing it (Harvey 1985, p. 87).

VIII. CONCLUSION

The technical labor theory of value school of Marxism clearly has a flawed pedigree. Though supposedly derived from Marx, it is a bastard

^{8.} This would be true if competitive conditions prevail in the market for skilled labor, which is unlikely.

line, initiated by Marx's conservative opponents and rejected by Marx from its inception. Its true lineage begins with Böhm-Bawerk's misinterpretation of Marx's dialectic of the commodity. The subtleties of Hilferding's rejoinder to Böhm-Bawerk were missed by subsequent Marxists, letting the notion that use-value was not a component of Marx's analysis take firm root. From then on it was maintained by neglect of the original sources, until the publication of the *Grundrisse*—in which Marx first developed the dialectic of the commodity—inspired a reexamination of Marx's reasoning.

That reexamination shows that until 1857. Marx followed a labor theory of value which was a direct descendant of Ricardo's labor measure of value, with its one advance being an explanation of the source of surplus. Then, while composing the Grundrisse, Marx developed the concept of the dialectic of the commodity, with exchange-value as the foreground and use-value as the background aspects of the unity the commodity. From this point on the concept of use-value (in dialectical union with exchange-value) became a crucial component of Marx's analysis of capitalism (Rosdolsky 1977; Groll 1980; Keen 1993). Marx used the concept so often and so widely that it is, in hindsight, easy to appreciate his frustration with Wagner's argument that in Capital Marx dismisses use-value "from science." However, the technical interpretation of Marx skipped over this massive development in Marx's logic, to preserve the pre-1857 labor theory of value as the apparent pinnacle of Marx's reasoning. It is this false peak which has been pilloried by conservative and progressive critics alike in the debate over the transformation problem, leading to an unwarranted diminution of Marx's perceived contribution to political economy.

One does not need to wonder how Marx would have treated those who called themselves his followers, and yet on a vital point in his economics concurred not with him, but with Wagner, the man he ridiculed: "Secondly, only an obscurantist, who has not understood a word of Capital, can conclude...therefore, use-value does not play any role in his work...with me use-value plays an important role completely different than in previous [political] economy" (Marx 1879, pp. 198-200).

9. It must be acknowledged that Hilferding's own over-strident prose against use-value was ripe for misinterpretation. He certainly did not actively promote the use-value/exchange-value dialectic, something which Engels did in his attempts to popularize Marx's analysis (see Engels 1868, 1894).

REFERENCES

- Böhm-Bawerk, E. 1890. Capital and Interest, Macmillan, London.
- _____. 1896. Karl Marx and the Close of His System, edited by P. Sweezy, Orion, New York. 1949.
- Boudin, L. B. 1907. The Theoretical System of Karl Marx, Charles H. Kerr, Chicago.
- Carver, T. 1975. Karl Marx: Texts on Method, Basil Blackwell, Oxford.
- Dobb, M. 1973. Theories of Value and Distribution since Adam Smith, Cambridge University Press, London.
- Engels, F. 1868. On Marx's Capital, 1956, Progress Press, Moscow.
 _. 1894. Anti-Dühring, 1947, Progress Press, Moscow.
- Groll, S. 1980. "The Active Role of 'Use-Value' in Marx's Economics," *History of Political Economy*, 12, 3, 336-71.
- and Orzech, Z. B. 1987. "Technical Progress and Values in Marx's Theory of the Decline in the Rate of Profit: An Exegetical Approach," *History of Political Economy*, 19, no. 4, pp. 591-613.
- Harvey, P. 1985. "The Value-creating Capacity of Skilled Labor in Marxian Economics," *Review of Radical Political Economics*, 17, no. 1/2, 83-102.
- Hilferding, R. 1904. "Böhm-Bawerk's Criticism of Marx," in P. Sweezy, ed., Karl Marx and the Close of His System, Orion, New York, 1949.
- Keen, S. 1993. "Use-Value, Exchange-Value, and the Demise of Marx's Labor Theory of Value," *Journal of the History of Economic Thought*, 15, Spring, 107-21.
- Mandel, E. 1971. The Formation of the Economic Thought of Karl Marx, NLB, London.
- and A. Freeman. 1984. *Ricardo, Marx, Sraffa*, Langston Foundation, London.
- McLennan, D. 1971. Karl Marx: Early Texts, Basil Blackwell, Oxford.
- Marx, K. 1857. Grundrisse, Penguin, Middlesex, 1973.
- _____. 1859. A Contribution to the Critique of Political Economy, Progress Publishers, Moscow.
- . 1861. Theories of Surplus Value, Parts I, II and III, Progress Press, Moscow, 1963, 1968, 1971.
- _____. 1867, 1885, 1894. *Capital, I, II, III*, Progress Publishers, Moscow, 1954, 1956, 1959.
- _____. 1879. Marginal Notes on A. Wagner, in Carver 1975.
- . 1919. Capital, I, Charles H. Kerr, Chicago.

- Meek, R. L. 1973. Studies in the Labor Theory of Value, 2d ed., Lawrence and Wishart, London.
- _____. 1977. Smith, Marx and After, Chapman and Hall, London.
- Oakley, A. 1983. Marx's Critique of Political Economy, Routledge and Kegan Paul, London.
- _____. 1983, 1985. The Making of Marx's Critical Theory, I, II, Routledge and Kegan Paul, London.
- Ricardo, D. 1821. *Principles of Political Economy and Taxation*, 3d ed., edited by E. C. K. Gonner, George Bell, London, 1891.
- Rosdolsky, R. 1977. The Making of Marx's Capital, Pluto Press, London.
- Rubin, I. I. 1928. Essays on Marx's Theory of Value, Black and Red, Detroit.
- Schumpeter, J. 1954. History of Economic Analysis, Allen and Unwin, London.
- Sweezy, P. M. 1942. The Theory of Capitalist Development, Oxford University Press, New York.
- _____, ed. 1949. Karl Marx and the Close of his System, Orion, New York.