Complex Labor, Value and
the Reduction Problem

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ABSTRACT: The “reduction problem” concerns the treatment of exceptionally skilled labor-power, known as “complex labor” within Marx’s value theory. Marx’s own writings on this subject are sparse and have been subject to extensive criticism. Here a solution is proposed drawing on the work of Jacques Bidet. It involves shifting away from individual workers to focus on the collective laborer and treating the resulting combination of specialisms through the framework of productivity increases. In this analysis most labor can be treated as “simple” rather than “complex,” whatever skills it happens to possess, with no enhanced value-creating potential. The notion of complex labor is reserved for those forms of labor where an adequate material basis does not yet exist for their real subsumption.

Introduction

THE REDUCTION PROBLEM HAS LONG BEEN one of the most vexatious issues in Marxist political economy. It emerges from Karl Marx’s own treatment in Capital of what he terms “complex labor,” certain forms of skilled labor. As early as 1896 this formed one of the focal points for Eugen von Böhm-Bawerk’s assault on Marx’s political economy. Böhm-Bawerk questioned the consistency of Marx in suggesting that all commodities have a “common factor,” labor, giving them their value, while also allowing commodities that were purely products of “skilled labor” to have a value measured according to “simple labor”:

The plain truth is that the two products embody different kinds of labour in different amounts, and every unprejudiced person will admit that this means
a state of things exactly contrary to the conditions which Marx demands and must affirm, viz., that they embody labour of the same kind. . . . (Böhm-Bawerk, 1898, 156.)

The answer to the reduction problem must indeed resolve difficult questions about the value produced by exceptionally skilled sections of the workforce without disrupting what we might call, following Makoto Itoh (1987), the basic “egalitarianism” of value theory. This article attempts to offer such an approach, building in particular on work by Jacques Bidet that has recently been published in English for the first time.

Marx and Complex Labor

Marx famously begins Capital with a discussion of the commodity. He is at pains to show that the commodity is the product of labor that has a two-fold nature. First of all it is the product of concrete labor, a specific type of labor leading to commodities with a particular use-value.

Second, Marx (1976a, 128) argues that, once the “different concrete forms of labor” are set aside, commodities “are all together reduced to the same kind of labor, human labor in the abstract”:

There is nothing left of them in each case but the same phantom-like objectivity; they are merely congealed quantities of homogeneous human labour, i.e., of human labour-power expended without regard for its form of expenditure. . . . As crystals of this social substance, which is common to them all, they are values — commodity values.

So, abstract labor, viewed as homogeneous labor without regard to the form of expenditure, is the substance of value. Marx (1976a, 128) then sets out how this can be measured. Its magnitude, the “quantity of the ‘value-forming substance’ . . . is measured by its duration, and the labor-time is itself measured on the particular scale of hours, days, etc.” This quantitative dimension becomes a central concern for the whole project of Capital. As Bidet (2009, 11) puts it: “An explicit intent runs through Capital from start to finish, that of constituting a science in the modern sense of the term, constructing a homogeneous space in which magnitudes are considered and calculation is possible.”

However, Marx immediately has to qualify his remarks about measuring value because he recognizes that the actual expenditure of a
particular labor-power is not automatically identical to any other, even in the production of a particular type of commodity:

Each [unit of labour power] is the same as any other, to the extent that it has the character of a socially average unit of labour power and acts as such, i.e., only needs, in order to produce a commodity, the labour-time which is necessary on average, or in other words is socially necessary.

“Socially necessary labor-time,” then, becomes the standard through which the labor performed is regulated, with actual labor producing commodities of a given value in a greater or lesser amount of time, distributed about this social average:

Socially necessary labour time is the labour-time required to produce any use-value under the conditions of production normal for a given society, and with the average degree of skill and intensity of labour prevalent in that society. (Marx, 1976a, 129.)

Before we come to complex labor, there are already three ways in which actual labor might deviate from the social average. The first is the productivity of labor. The conditions of production vary across society, for instance due to technological innovations that characteristically reduce the amount of socially necessary labor-time crystallized in each commodity, allowing capitalists to compete by cutting prices below those of their competitors and appropriating a greater portion of overall surplus value. In the short run, while these new techniques represent an innovation that has not yet generalized, they represent a deviation from the norm; eventually, if generalized, they establish a new social norm.

The second is the intensity of labor, which is established historically as an average for each branch of industry, and across a given society more generally, but which can still be greater or less than average in a specific instance, leading to more or less value being crystallized in a given period. The third is what Marx calls skill in the preceding quotation. Marx here seems to be referring to a typical distribution in talent, knack and acquired abilities that one would expect to encounter across a workforce, which he distinguishes from what he later calls complex labor. This interpretation is supported by a careful reading of the text, which refers to workers being more or less “skilful,” just as they might be more or less lazy (Marx, 1976a, 129).
After we have come to terms with these factors, there is a quite separate distinction between simple and complex labor. Complex labor is not simply a deviation from the norm, resulting in a deviation in the amount of value produced in a given time by an especially effective or ineffective laborer. We can see this if we compare it to his definition of simple labor, because here Marx makes clear through the use of the phrase “on average” that such deviations also occur when comparing different instances of simple labor:

*Simple average labour*, it is true, varies in character in different countries and at different cultural epochs, but in a particular society it is given. . . . It is the expenditure of simple labour power, *i.e.*, of the labour power possessed in his bodily organism by every ordinary man, on average without being developed in any special way. (Marx, 1976a, 135.)

One important implication, which we will return to below, is that, conversely, complex labor is precisely “developed in a special way.”

Now, Marx (1976a, 135) writes of complex labor:

More complex labour counts only as *intensified*, or rather *multiplied* simple labour, so that a smaller quantity of complex labour is considered equal to a larger quantity of simple labour. . . . A commodity may be the product of the most complicated labour, but through its *value* it is posited as equal to the product of simple labour, hence it represents only a specific quantity of simple labour.

The first claim made here is that complex labor, in a given time, crystallizes a greater quantity of abstract labor, measured in accordance with socially necessary labor-time, in a commodity. As such, as McGlone and Kliman (2004, 138–139) point out, it *presupposes* abstract labor. Labor must first take the form of abstract labor before we can reduce complex to multiples of simple labor.¹ The second claim is that its products can be equated with other products. Because they have a value, they can be placed in relation to other commodities through exchange, *i.e.*, they have an exchange-value, which is the form taken by value. This does not simply mean that market exchange makes the

¹ In other words, the reduction of complex to simple labor cannot be treated as the same process as the setting aside of the concrete qualities of labor from which the concept of abstract labor arises. The first rests on the second.
reduction; implicit in the value relation is the pressure that each capital exerts on its rivals through competitive accumulation (McGlone and Kliman, 2004, 140–141).

Returning to Marx (1976a, 135). In an infuriating passage that follows, he adds:

The various proportions in which different kinds of labour are reduced to simple labour as their unit of measurement are established by a social process that goes on behind the backs of the producers; these proportions therefore appear to have been handed down by tradition.

But he remains silent as to the precise nature of this social process.2 Finally, Marx adds a footnote to the passage just cited, making clear that he is not, at this point, discussing the value the worker receives, merely the value of the commodities: “At this stage of our presentation, the category of wages does not exist at all.”

Making Sense of Complex Labor

There are almost as many attempted solutions to the resulting reduction problem as there are Marxists writing about value (see Itoh, 1987 for a summary of some of them). One superficially attractive solution would be to argue that complex labor-power is more costly to hire and thus substantiates greater value in production. This position would seem to be supported by Marx’s only other sustained engagement with the problem in *Capital*, which comes in chapter seven:

All labour of a higher, or more complicated, character than average labour is expenditure of labour-power of a more costly kind, labour-power whose production has cost more time and labour than unskilled or simple labour-power, and which therefore has a higher value. This power being of a higher value, it expresses itself in labour of a higher sort, and therefore becomes objectified, during an equal amount of time, in proportionately higher values. (Marx, 1976a, 305.)

2 A rather literal interpretation has been offered in this journal by Morris and Lewin (1973) for whom the “historical and socially conditioned psychological process (externalized in custom and tradition) which generates the equalization of concrete labors in terms of human labor in general is as old as social life and social labor itself.” This would, paradoxically, make the solution to the reduction problem antedate the capitalist mode of production, in which value emerges as a category.
As Bidet points out, this passage contains two occurrences of the word “therefore,” neither of which seems to stand up to scrutiny. The first links the value of labor-power to its “production cost.” However, the value of labor-power is the value that must be advanced to reproduce a labor-power, plus the “moral and historical” element, reflecting, for instance, concessions wrested out of capital by labor. Training might impose costs on capital, but it is not clear why prior costs of training labor would necessarily be embodied in the cost of the reproduction of labor-power once the worker has been trained. Capitalists do not pay higher wages to cover the cost of training workers had in the past; they pay what they need to pay in order to get the worker back to work the next day. The costs of education, for instance, might be covered by general taxation rather than falling exclusively on the capitals that take advantage of the laborer thus educated. In other words, there is no straightforward relationship between the cost required to “produce” a labor-power and the cost of its reproduction.

The second “therefore” is even more problematic. It apparently connects this more costly labor-power to the production not simply of a greater value but of a “proportionately” greater value. This violates Marx’s own presentation of value theory, which systematically separates the cost of reproduction of labor-power from the extent to which that labor-power creates new value. Nonetheless, this is, in effect, what Isaak Rubin (1973, 165), one of the most astute exponents of value theory, argues: “The labor expended in training the producers of a given profession enters into the value of the product of qualified labor.” In this kind of approach, each complex labor-power would contain a ghostly apparition of prior labor-power, that of its trainers, standing behind it and giving it greater value-producing qualities. As Bidet (2009, 26) writes:

It is the very object of the theory of surplus-value that there is no necessary relationship between the amount of value that labour produces and the value of labour-power itself; an increase in the latter only reduces surplus-value. Training costs, which come under the category of “necessary subsistence” (in the broader sense) cannot have, qua costs, an effect on the value of the product. . . . What it refers to is the idea of a transfer of value from an original labour [that of the trainer], first to the productive power . . . that it forms and then to the product of this. . . . But this transitivity is precisely what characterizes constant capital such as machinery, and not living labour, the value of which is not the object of a transfer but simultaneously a consumption
(v) and a production (v + s). The paralogism comes from treating variable capital as constant capital.

Is this evidence of a glaring inconsistency in Marx? According to Bidet (2009, 24–25), the second “therefore” was not contained in the original German text of Capital. That text used a “but,” which renders the passage extremely vague. Rudolf Hilferding (1904), in one of the earliest rebuttals of Böhm-Bawerk, also points out the “but,” adding: “To deduce the value of the product of labor from the wage of labor conflicts grossly with the Marxist theory.”3 It was Engels who turned the “but” into a “therefore” in the fourth German edition, making the text more coherent at the cost of cementing Marx’s vagueness into error. The 1872 French edition, which Marx oversaw, reasserts the vagueness:

Let us admit . . . that, compared with the labour of the cotton-spinner, that of the jeweller is labour of a higher power, that the one is simple labour and the other complex labour expressing a skill harder to train and rendering more value in the same time. (Cited in Bidet, 2009, 25.)

Whatever Marx’s intent, the result is horrible confusion.

Bidet’s Solution

The solution Bidet proposes involves two stages. The first is to move to a more concrete analysis of capitalism, drawing in particular on the “Results of the Immediate Process of Production.” Here Marx (1976b, 1024) writes:

The social productive forces of labour, or the productive forces of directly social, socialised (i.e., collective) labour come into being through cooperation, division of labour within the workshop, the use of machinery, and in

3 Unfortunately, while Hilferding (1904) claims that the value of skilled labor-power is whatever it takes to produce and reproduce it, he also claims that “latent” labor of the instructors who produced the “skilled labor-power” spark into life when the skilled worker begins their toil, adding their value to the value of the laborer. As Morris and Lewin (1973) argue, this threatens to abolish surplus value as the value created by the labor-power is now the same as the value required to produce it, although, following Hilferding’s argument more rigorously, there would still be the value of the simple labor of the skilled worker, net of his instruction. In fact, if Hilferding is taken literally, all workers would yield the same value as “simple labor,” regardless of their training.
general the transformation of production by the conscious use of the sciences, of mechanics, chemistry, etc., for specific ends, technology, etc., and similarly, through the enormous increase of scale corresponding to such developments. . . .

He goes on to say of the various economies made by capitalists, that they seem to be something quite separate from the surplus labour of the worker. They appear to be the direct act and achievement of the capitalist, who functions here as the personification of the social character of labour, of the workshop as a whole. (Marx, 1976b, 1053.)

Capitalist production is not undertaken by isolated weavers, spinners or jewellers. It is undertaken by a collective laborer, whereby an amalgam of labor powers is coupled together with machinery in order to expend labor that is at once abstract and concrete. In this conception we are generally dealing with specialism rather than skill per se. While there may be specialized functions within the capitalist workshop, argues Bidet (2009, 29), “nothing authorizes us to assign specialized labor a greater share of the value produced.” If use-values are typically, for Marx, products of the collective laborer, then it is the latter that is responsible for both concrete and abstract labor under capital, not individual workers.⁴

The second stage of Bidet’s argument is that what are regarded as more skilled forms of labor can in this context be treated through a consideration of the productivity of labor. He writes that, while a new amalgam of specialized laborers might be more productive, “the theory does not authorize any specific consideration concerning the increase in value that this skilled labor might produce as such” (Bidet, 2009, 21). This is analogous to the extra surplus value captured by a capitalist who introduces new machinery, prior to the innovation becoming generalized in a particular industry. We know that this innovating capitalist will be able to make a greater profit than its rivals by selling commodities below their socially established value, but we do

⁴ Another Marxist, Michael Kidron (1974), also proposes a shift from the individual to collective worker in his own treatment of the reduction problem, emphasizing that use-values are the product of composites blending together workers with different skills. As large capitals, and hence the collective laborers within them, become increasingly uniform, argues Kidron, the reduction problem ceases to be such an issue.
not *a priori* have a method of calculating how much more. Empirical investigation would be required to determine this.

These innovations together sever the category of complex labor from more general discussions of skill, for instance those in the labor process theory debate initiated by Braverman in *Labor and Monopoly Capital* (1974). Those debates typically deal with particular combinations of specialized labor that are coupled together with technology in a historically shaped production process. Because this takes place in a context of competitive accumulation, capitalists will seek to maximize their profitability. There are several methods that can be used, including increasing the intensity of labor through increased managerial discipline or extending the working day. However, it might also be achieved through technological innovation or by changes in the labor process, or, more likely, a combination of the two, in order to raise the productivity of the collective laborer. In this periodic transformation of the labor process it is not meaningful to talk about “more” or “less” skill, merely changing skills and specialisms.

Often the problems here are of perception. Critics of Marx, from Böhm-Bawerk onwards, have sought to designate particular forms of labor as “skilled” because of certain features of that labor, generally reflecting the balance between intellectual and manual dimensions of the work. They ignore the fact that the distinctiveness of work is not, in and of itself, an issue of skilled or complex labor, as all forms of work are necessarily distinctive (Rosdolsky, 1989, 509–510). There is nothing in Marx’s substantive discussion of value to suggest that mental labor inherently has more value-creating potential than manual labor.

As the labor process is refashioned historically, it involves a new amalgam of specialisms with different types of training, education and experience, leading to different capacities. However, once these are woven together into the collective laborer, it is impossible to attribute the rise in productivity to a particular category of “skilled laborer” or to a uniform process of upskilling.⁵

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⁵ In a fascinating but rarely cited passage in *Capital*, Marx writes about the transformation of the skills required by the labor force in a way that overcomes a crude emphasis on relentless deskilling or upskilling: “Modern industry . . . by means of machinery, chemical processes and other methods . . . is continually transforming not only the technical basis of production but also the functions of the worker and the social combinations of the labor process. . . . Large-scale industry, by its very nature, necessitates variations of labor, fluidity of functions, and mobility of the worker in all directions. But on the other hand, in its capitalist form it reproduces the old division of labor with its ossified particularities.”
Overall, Bidet’s approach limits the scope of complex labor and overcomes many of the problems for value theory. However, it does not exhaust the problem entirely. There are still points at which complex labor proper, as opposed to certain forms of specialized labor capable of raising productivity, resurfaces.

**Beyond Bidet**

The discussion that opens *Capital* has a largely implicit presupposition, namely that the capitalist system itself provides an adequate basis for the emergence of a world regulated through value. This comes to fruition only with the “real subsumption of labor under capital,” the stage at which the capitalist steps into the labor process to revolutionize it, rendering it more productive through its reorganization and through the introduction of machinery. Marx (1976b, 1035) writes:

> With the real subsumption of labour under capital, all the changes in the labour process already discussed now become reality. . . . On the one hand, *capitalist production* now establishes itself as a mode of production *sui generis* and brings into being a new mode of material production. On the other hand, the latter itself forms the basis for the development of capitalist relations whose adequate form, therefore, presupposes a definite stage in the evolution of the productive forces of labour.

This “adequate form” involves the development of abstract labor *in actuality*. Bidet (2009, 15) is quite dismissive of Marx’s and subsequent Marxists’ attempts to grapple with this problem. Yet it is the combination of the reorganization of the process of production, including mechanization, and the creation and reproduction of a class of propertyless wage laborers sufficiently interchangeable to fulfill the various roles required that secures this actualization of abstraction. Capital does indeed tend to create a world of relatively homogeneous labor, which it then forges into collective laborers. Hence the abstraction that Marx identifies is not simply an intellectual one, but is a *real abstraction* in which the workings of capital itself, and the pressure of capitals

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one hand, suppress the “specialized function” of the worker and “make him superfluous” (deskilling); on the other hand, it necessitates “the totally developed individual, for whom the different social functions are different activities he takes up in turn” (upskilling). Marx goes on to link this to the foundation of technical and agricultural schools in Britain and “vocational schools” in France (Marx, 1976a, 617–619).
upon one another, require and generate particular forms of labor-power (Saad-Filho, 2002, 10–12, 55–61). As Marx (1993, 104–105) puts it in the *Grundrisse*:

As a rule, the most general abstractions arise only in the midst of the richest possible concrete development, where one thing appears as common to many, to all. Then it ceases to be thinkable in a particular form alone. On the other side, this abstraction of labour as such is not merely the mental product of a concrete totality of labours. Indifference towards specific labours corresponds to a form of society in which individuals can with ease transfer from one labour to another, and where the specific kind is a matter of chance for them, hence of indifference. Not only the category, labour, but labour in reality has here become the means of creating wealth in general, and has ceased to be organically linked with particular individuals in any specific form. Such a state of affairs is at its most developed in the most modern form of existence of bourgeois society — in the United States. Here, then, for the first time, the point of departure of modern economics, namely the abstraction of the category “labour,” “labour as such,” labour pure and simple, becomes true in practice.

This real abstraction of labor does not require that any worker can do any job; merely that there are sufficient workers that capitals can move into a field of production by taking up and exploiting already existing labor-power. Nor does it mean that no training at all is required to do the work of simple labor, as we can assume that most jobs will require at least some training. Returning to a phrase from *Capital* cited above, the question is whether the labor-power requires *special development* over and above the range that might be typical in a given society at a given historical juncture. In other words, it is a question of both the reproduction of labor-power and the establishment of conditions adequate to its abstraction through the material process of production.

The overwhelming bulk of work performed under capitalist conditions — regardless of whether this or that commentator regards it as skilled, unskilled or semi-skilled — is, in the sense given here, simple labor and can be treated as such. The category of complex labor applies *solely* to workers whose particular skills and talents are not readily available at any given moment because they do require special development. Because they are not readily available, capital cannot simply move into spheres requiring complex labor by taking
up the labor-power generally available to it and, on the basis of typical amounts of training, setting it to work.\(^6\)

These are the knots in the more-or-less smooth fabric of capital. It is here that Bidet’s propositions, that we can view these issues simply through the prism of productivity increases and that we cannot assign rises in this productivity to any particular worker, are insufficient. When we are dealing with the peculiar forms of complex labor described here, the mode of material production is not yet adequate to their abstraction, even though they operate under the authority of capital in a world governed by abstract labor and so substantiate value in commodities. They therefore disrupt the homogeneous economic space constructed by Marx. Their labor power does indeed create multiples of the value created by simple labor, though we cannot \textit{a priori} determine how much more value.\(^7\)

Furthermore, the differences in value production can be sustained. If the limited reproduction of the type of labor-power in question means that capitals will not necessarily be able to enter the field of production in order to compete, there is no automatic erosion of the extra value-creating capacity of complex labor as capitals rush into these sectors, reducing prices. In other words, the problem is not eradicated by the tendential equalization of profit rates, in the way that differences of profitability due to differences in the organic composition of capital between sectors are eroded through shifts in

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\(^6\) In a well-known addendum to \textit{Theories of Surplus Value}, Marx (1978, 401) can be read as arguing something similar about artistic labor under capitalism: “Milton produced \textit{Paradise Lost} for the same reason that a silk worm produces silk. It was an activity of \textit{his} nature. Later he sold the product for £5. But the literary proletarian of Leipzig, who fabricates books (for example, \textit{Compendia of Economics}) under the direction of his publisher, is a \textit{productive laborer}; for his product is from the outset subsumed under capital, and comes into being only for the purposes of increasing that capital.” Although Marx is here contrasting productive to unproductive labor, the concept of a commodity emerging (\textit{Paradise Lost}) that is evidently not a product of abstract labor is suggestive. Milton’s work was prized precisely for its unique, concrete qualities; its production could not have been fully subsumed under capital. Not so with the literary proletarian, who fits the image of part of a mass of interchangeable laborers, and whom Marx also refers to as a “writer who turns out stuff for his publisher in factory style.”

\(^7\) There is no great issue conceiving of commodities whose value cannot be exactly determined through the labor theory of value. After all, prior to capital seizing control of production, when commodities begin to be exchanged, “their quantitative exchange-relation is at first determined purely by chance” (Marx, 1976a, 182). Over time, he writes, “custom fixes their value at definite magnitudes.” Similarly, we would expect the prices of products of complex labor to be initially established in a haphazard manner through exchange, before acquiring the force of “tradition,” to use the term Marx applies in his discussion of the reduction.
prices of production brought about by the movement of capital into areas with a lower composition.

The knots can be unraveled in two ways, proceeding from the side of creating an adequate material basis for labor’s abstraction through mechanization or from the side of the social reproduction of labor-power. In the first case, capital can oversee the redevelopment of the labor process, perhaps utilizing new technology, to allow simple labor to take on work previously performed by complex labor. In the second, sufficient quantities of complex labor can be generated through special education or training such that it is ultimately rendered interchangeable and homogeneous enough to lose its exceptional, complex character and becomes submerged into the ocean of simple labor.

There are various reasons why capital might want to unravel the knots. Most obviously, complex labor, though creating more value than simple labor, can also be expensive to reproduce, not least because groups of complex laborers can potentially use their monopoly over certain capacities to extract exceptional wages from capital. These workers can also use their strategic position to obstruct the introduction of new technology and techniques that would increase productivity. In this sense, David Harvey (2006, 109) talks about the tendency for capitalism to generate “non-monopolizable” skills, such as those allowing for “flexibility and adaptability,” to replace “monopolizable skills” that can act as “a barrier to the accumulation of capital.”

Conclusion

What this paper has sought to demonstrate is that there is an analytical distinction between complex labor and various specialized forms of simple labor that might be termed “skilled.” Complex labor in and of itself crystallizes greater value in a given period of time; simple labor does not, even if it might, in combination with other forms of labor, be involved in a more productive labor process than the social average, allowing the capitalist who employs it to appropriate a greater amount of surplus value.

Once seen through this prism, complex labor in contemporary capitalism can be identified as a fairly marginal but real phenomenon, constantly being eradicated and recreated by the system itself both through reorganization of the labor process and through changes to the reproduction of labor-power.
The egalitarianism of value theory is preserved without coming at the cost of disregarding those forms of labor not yet effectively subsumed by capitalist industry.

REFERENCES


