

*Realizing philosophy: Marx, Lukács and the Frankfurt School**

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Abstract:

This paper explains the philosophy of praxis of four Marxist thinkers, the early Marx and Lukács, and the Frankfurt School philosophers Adorno and Marcuse. The philosophy of praxis holds that fundamental philosophical problems are in reality social problems abstractly conceived. This argument has two implications: on the one hand, philosophical problems are significant insofar as they reflect real social contradictions; on the other hand, philosophy cannot resolve the problems it identifies because only social revolution can eliminate their social causes. I call this a “metacritical” argument. I argue that metacritique in this sense underlies the philosophy of praxis and can still inform our thinking about social and philosophical transformation. The various projections of such transformations distinguish the four philosophers discussed in this paper. They also differ on the path to social change. They develop the metacritical argument under the specific historical conditions in which they find themselves. Differences in these conditions explain much of the difference between them, especially since philosophy of praxis depends on a historical circumstance—the more or less plausible revolutionary resolution of the problems at the time they are writing.

Key words:

Marxism; Marx; Lukacs; Adorno; Marcuse; metacritique; praxis.

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Introduction: metacritique

In 1844, Marx wrote that “Philosophy can only be realized by the abolition of the proletariat, and the proletariat can only be abolished by the realization of philosophy” (MARX, 1963, p. 59). Adorno later commented, “Philosophy, which once seemed obsolete, lives on because the moment to realize it was missed” (ADORNO, 1973, p. 3). What is the meaning of this strange concept of a “realization” of philosophy? The purpose of this chapter is to sketch an answer to this question which is more fully developed in my book, entitled *The philosophy of praxis: Marx, Lukács, and the Frankfurt School* (2014).

Gramsci used the phrase “philosophy of praxis” as a code word for Marxism in his *Prison Notebooks*. It has come to signify interpretations of Marxism that follow his lead in situating all knowledge in a cultural context, itself based on a class specific worldview. Gramsci called this “absolute historicism”. It characterizes the Hegelian Marxism of Marx’s early work, Lukács, Korsch, Bloch, and the Frankfurt School. I will refer to this trend as philosophy of praxis to distinguish it from other interpretations of Marxism.

The philosophy of praxis holds that fundamental philosophical problems are in reality social contradictions abstractly conceived. These contradictions appear as practical problems without solutions, reflected in cultural dilemmas. Philosophy treats them as theoretical antinomies, insoluble conundrums over which the thinkers struggle without reaching a convincing solution or consensus. They include the antinomies of value and fact, freedom and necessity, individual and society and, ultimately, subject and object. Traditional philosophy is thus theory of culture that does not know itself as such. Philosophy of praxis does know itself as cultural theory and interprets the antinomies accordingly as sublimated expressions of social contradictions.

This argument has two implications: on the one hand, philosophical problems are significant insofar as they reflect real social contradictions; on the other hand, philosophy cannot resolve the problems it identifies because only social revolution can eliminate their causes. As Marx says in his eleventh thesis on Feuerbach, “The philosophers have only *interpreted* the world, in various ways; the point is to *change* it” (MARX, 1967, p. 402). But as we will see, the change envisaged by philosophy of praxis encompasses nature as well as society, creating new and puzzling problems.

The most developed version of this argument is Lukács’s notion of the “antinomies of bourgeois thought”. Hegel claimed that the fundamental task of philosophy is overcoming the antinomies and reconciling their poles. Lukács accepted Hegel’s view but argued that this is not a speculative task. The antinomies arise from the limitations of capitalist practice, its individualistic bias and technical orientation. Lukács calls the world created by such practice “reified.” Its antinomies cannot be resolved theoretically but only through a new form of dereifying practice. His argument clarifies the earlier contribution of Marx and explains the later attempt of the Frankfurt School to create a “critical theory.”

Consider the “antinomy” of value and fact. Philosophy has struggled with this antinomy ever since scientific reason replaced Aristotelian teleology. Most modern philosophers have tried to rationally justify moral values despite the fact that nature no longer has a place for them. The philosophers of praxis argue that this procedure is misguided. The underlying problem is the dominant understanding of *rationality* and the corresponding concept of *reality* in capitalist society. Science exemplifies these philosophical categories but they have a social origin in the structure of market relations and the capitalist labor process. It is in this context that values appear opposed to a reality defined implicitly by obedience to economic laws indifferent to humanity. Lukács sums up this dilemma: “For precisely in the pure, classical expression it received in the philosophy of Kant it remains true that the ‘ought’ presupposes a being to which the category of ‘ought’ remains inapplicable in principle” (LUKÁCS, 1971, p. 160). So far the argument appears relativistic and reductionist, but Lukács reached the startling conclusion that a transformation of social reality can alter the form of rationality and thus resolve the antinomy.

I call this a “metacritical” argument. It takes the abstract concepts of value and fact, grounds them in their social origin and then resolves their contradiction at that level. The application of this approach to the fundamental antinomy of subject and object is foundational for all versions of philosophy of praxis. The argument has three moments:

First, sociological desublimation of the philosophical concept of the subject which, from its idealist definition as transcendental *cogito* is redefined as a living and laboring human being. This move follows from Feuerbach’s original critique of the alienation of reason: “What lies in the other world of religion, lies in this world for philosophy.” (FEUERBACH, 1966, p. 70) To disalienate philosophical reason the real subject must be discovered behind the theological veil.

Second, reconceptualizing the relation of the desublimated subject to the objective world in accordance with the structure of the cognitive subject-object relation in idealist philosophy. That relation is summed up in the concept of the identity of subject and object which guarantees the universal reach of reason. It reappears in many guises in the philosophy of praxis, from Marx’s ontological interpretation of needs to Lukács’s “identical subject-

object of history” to the attenuated identity implied in the notion of mutual participation of human beings and nature in the later Frankfurt School.

Third, resolving the antinomies that arise in this context through projecting a revolution in the relations of the desublimated terms. Revolution appears as a *philosophical method* in place of the speculative methods of modern philosophy since Descartes.

Metacritique in this sense underlies the philosophy of praxis and can still inform our thinking about social and philosophical transformation. The various projections of such transformations distinguish the four philosophers I discuss in this article. They develop the metacritical argument under the specific historical conditions in which they find themselves. Differences in these conditions explain much of the difference between them since philosophy of praxis depends on a historical circumstance—the (more or less plausible) revolutionary resolution of the antinomies at the time they are writing.

Philosophy of praxis in Marx

Marx’s early writings first proposed a consistent version of the philosophy of praxis. He wrote at the beginning of the proletarian movement in a backward society with a sophisticated philosophical culture, conditions that favored a broadly speculative conception of the future. He projected a total revolution, transforming not only society but also experience and nature. He dismissed modern science as alienated and promised a new science uniting history and nature: “There will be,” he argued, “a single science” (MARX, 1963, p. 164). The rather fantastical quality of these speculations gave way to a sober scientific analysis of capitalism in later works that restrict the metacritical argument to political economy.

The early Marx sought a resolution of the antinomies through revolution. His concepts of the subject as a natural being, of objectification of human faculties through labor, and the revolutionary overcoming of capitalist alienation correspond to the three moments of metacritique. From this perspective the *Manuscripts of 1844* appear as a historicized ontology with a normative dimension. They promise the “realization” of philosophy in social reality.

Marx’s argument begins with an analysis of the place of revolution in political philosophy. Revolution has been justified in modern times either on the grounds that the existing state is an obstacle to human happiness, or because it violates fundamental rights. These are described as “teleological” or “deontological” grounds for revolution. Marx introduced an original deontological ground: the “demands of reason.” Idealism originally formulated these demands as the resolution of the antinomies of thought and being, subject and object.

The early work developed the argument in three stages. Marx started out from the antinomy of moral citizenship in the bourgeois state versus economic need in civil society. Citizen and man are moved by completely different and conflicting motives, the one by universal laws, the other by individual advantage. In the first stage of the theory, he showed the importance of transcending this opposition but did not explain how needs can be harmonized and universalized to overcome their competitive nature. He argued next that the proletariat is the agent of revolution and as such tasked with resolving the antinomy of man and citizen. But this argument creates a new antinomy of (Marxist) theory and (proletarian) practice. Has the existing proletarian movement anything to do with Marx’s project? What sort of practical, material motivation would correspond with Marx’s philosophical goals? The third phase of the argument answered these questions with a metacritical deconstruction of the antinomy of reason and need.

The key to understanding Marx’s *Manuscripts* is their radical redefinition of need as the ontologically fundamental relation to reality. Marx writes, “Man’s feelings, passions etc., are not merely anthropological characteristics in the narrower sense, but are true ontological affirmations of being (nature)” (MARX, 1963, p. 189). If need rather than knowledge is fundamental, the claims of idealist philosophy to derive being from the thinking subject are overturned.

But Marx did not simply reject the idealist formulation. On his ontological account, need is not accidentally related to the natural means of satisfaction but is essentially correlated with nature. The correlation is lived out in work, which objectifies human faculties in nature while fulfilling needs. This is the “true” unity of subject and object. It is similar in form and function to the cognitive unity of subject and object in idealism. The liberation of the subject of need from the law of the market thus satisfies the demands of reason and grounds Marx’s revolutionary critique of the alienation of labor. The antinomies are overcome in history, not just the antinomy of man and citizen which emerged from his first essays on politics, but the ontologically fundamental antinomy of subject and object as well. “Thus society is the accomplished union of man with nature, the veritable resurrection of nature, the realized naturalism of man and the realized humanism of nature” (MARX, 1963, p. 157).

But is this a plausible claim? The goal of idealist philosophy is to demonstrate the unity of subject and object by showing the *constitution* of the object by the subject. What happens to this ambition if subject and object

are redefined as natural beings? In the context of philosophy of praxis this gives rise to a new antinomy of society and nature: can a living social subject constitute nature? Marx's *Manuscripts* answer "yes": nature is reduced to a human product through labor and, where labor cannot do the job, through sensation, understood as socially informed and thus constitutive of a specifically human dimension of the objective world: "Man himself becomes the object." (MARX, 1963, p. 161)

But surely nature existed before human beings and does not depend on them for its existence. Natural science studies this independent nature which appears as true reality. If this is so, history is an insignificant corner of the universe and human being is a merely natural fact without ontological significance.

Naturalism is thus a central issue for philosophy of praxis from the very start. Marx challenges naturalism, arguing that if you imagine nature independent of human beings you imagine yourself out of existence. In short, nature independent of human beings is a meaningless postulate, not a concrete reality. Marx thus rejects the "view from nowhere" as a leftover from the theological notion of a disembodied subject. He argues for what I call "epistemological atheism". His idea of nature is not that of modern natural science which he dismisses as an abstraction. He conceives nature as it is experienced in need, perceived by the socialized senses, and mastered by labor. This lived nature has a historical dimension that the nature of natural science lacks. Hence Marx's call for the creation of a new science of lived nature.

The concept of a new science only makes sense if the very idea of objective knowledge is transformed. Marx and later Lukács and the Frankfurt School argue for a new conception of what Horkheimer calls "the finitude of thought". "Since that extrahistorical and hence exaggerated concept of truth is impossible which stems from the idea of a pure infinite mind and thus in the last analysis from the concept of God, it no longer makes any sense to orient the knowledge we have to this impossibility and in this sense call it relative." (HORKHEIMER, 1995, p. 244) Knowledge arises under a "finite horizon". It is based on the socially situated involvement of the subject rather than detachment from the object.

Lukács's concept of reification

Although Lukács's version of the philosophy of praxis has similarities with that of the early Marx, he was influenced primarily by Marx's later works. The concept of reification is Lukács's most important theoretical innovation. This concept synthesizes Weber's idea of rationalization with Marx's critique of the fetishism of commodities and his analysis of the relation of the worker to the machine. Although Lukács generally avoids the word "culture," with this concept he does in fact propose what we would call a critical approach to the culture of capitalism. The critique is articulated in terms drawn from neo-Kantianism and Hegel's logical writings, but its most basic premise is the Marxist argument that capitalism cannot fully grasp and manage its own conditions of existence. Thus the concept of reification is an original basis for the theory of capitalist crisis.

There is much confusion in the literature about the meaning of reification. According to its etymology, "reification" is the reduction of human relations to relations between things. The word "thing" in this context has a specific meaning: an object of factual knowledge and technical control. Reification as Lukács understands it generalizes the scientific-technical relation to nature as a cultural principle for society as a whole. In this sense it constitutes the society through a specific pattern of beliefs and practices. Reification is thus not a mental state but a cultural form that structures society as well as consciousness.

Here is how Lukács summarizes his theory. "What is important is to recognize clearly that all human relations (viewed as the objects of social activity) assume increasingly the form of objectivity of the abstract elements of the conceptual systems of natural science and of the abstract substrata of the laws of nature. And also, the subject of this 'action' likewise assumes increasingly the attitude of the pure observer of these – artificially abstract – processes, the attitude of the experimenter" (LUKÁCS, 1971, p. 131). Reification is thus the principle of intelligibility of capitalism. It is not a simple prejudice or belief, but the constructive basis of a social world.

Writing at a time when invasive social rationalization threatened to overwhelm Europe, Lukács interpreted Marx's analysis of capitalist economic rationality as the paradigm and source of the modern conception of science and technology. The economic limitations of capitalism show up as limitations of rationality in every sphere. These limitations have to do with what Lukács calls "formalism". The problem, Lukács argues, is not with this formalistic scientific reason per se, but with its application beyond the bounds of nature, its appropriate object, to society.

Reified economic rationality is formal in the sense that it abstracts from specific qualitative contents to quantitative determinations, e.g. price. The form/content dialectic is exemplified by the contradiction between the abstract economic form of the worker as seller of labor power and the concrete life process of the worker which overflows the boundaries of the economic concept. "The quantitative differences in exploitation which appear to the capitalist in the form of quantitative determinants of the objects of his calculation, must appear to the worker as the decisive, qualitative categories of his whole physical, mental and moral existence." (LUKÁCS, 1971, p. 166) The tension between form and content is not merely conceptual but leads to crisis and revolution. The theory of

reification thus builds a bridge between Marx's crisis theory and the intensifying cultural and philosophical crises of early 20th century capitalist society, all of which Lukács attributes to the effects of the formal character of modern rationality.

Lukács developed this argument through a critical history of philosophy. Reified thought, as exemplified by Kant, takes the scientific-technical relation to nature as the model of the subject-object relation in general. But scientific laws are abstracted from specific objects, times and places. If rationality as such is modeled on science, much escapes it. With Kant the contradiction of form and content is generalized. Reified formal rationality gives rise to a correlated content it cannot fully embrace. The content that does not go into the formal concepts without remainder appears as the thing-in-itself. The antinomy of subject and object divides the knowing subject from ultimate reality.

Kant's three critiques of pure and practical reason and aesthetic judgment correspond to the three attempts in classical German philosophy to resolve the antinomies of a formalistic concept of rationality. Three demands of reason emerge from this "philosophical experience:" the principle of practice (only a practical subject can overcome the antinomy of form and content); history as reality (only in history is practice effective at the ontological level); dialectical method (dialectics overcomes the limitation of rational explanation to formal laws). Lukács organized his account of post-Kantian philosophy around the struggle to meet these demands which Marxism finally fulfills.

Lukács argued that the metacritical desublimation of the concept of rationality in Marxism makes possible a resolution of the antinomies of classical German philosophy, social antinomies such as the conflict of value and fact, freedom and necessity, but also the ontological antinomy of subject and object exemplified by the thing-in-itself. The contradictions are resolved by the revolution which, in overthrowing capitalism, ends the reign of the reified form of objectivity of capitalist society. The revolution, as a practical critique of reification, is the third moment of the metacritique; it satisfies the demands of reason.

But the meaning of this argument is obscure. Is the proletariat a metaphysical agent, a constituting subject *à la* idealism, a version of the transcendental ego, positing the existing world? The contemporary neo-Kantian philosopher, Emil Lask, proposed a theory of logic that helped Lukács avoid this absurd conclusion. Lukács drew on Lask's distinction between meaning and existence to elaborate his social dialectic of abstract form and concrete content. The meanings supplied by the structure of capitalism are imposed on the contents of social existence. The proletariat mediates these meanings in a continuous process of which it is a part. But in this case Lukács departs from Lask: action at the level of meaning has consequences at the level of existence. Form and content must be understood together in their relation in a "totality".

Lukács calls the proletariat an "identical subject-object" for which knowledge and reality are one. In consciousness of its reified condition *qua* mass of exploited individuals, the proletariat rises above that condition and transforms itself and the society through collective action. "The worker's self-knowledge brings about an objective structural change in the object of knowledge (...). Beneath the cloak of the thing lay a relation between men (...) beneath the quantifying crust there was a qualitative, living core." (LUKÁCS, 1971, p. 169) I call this a "methodological" concept of revolution. It does not substantialize the proletariat nor view dereification as the achievement of a final unreified state of affairs. Rather reified institutions and social relations produce collective subjects which contest the reified forms from within.

This theory is a permanent source of controversy. The disagreement is especially relevant to Lukács's considerations on nature and natural science because it is here that the metaphysical interpretation leads to the most dubious consequences. I argue that Lukács is betrayed by his rhetorical references to idealism but actually holds a much more plausible dialectical view. In fact, he denied that nature "in itself" is constituted by historical practice. Is this an inconsistency? How then can proletarian revolution resolve the antinomies if nature "in itself" lies beyond history?

Lukács lived in an advanced society in which science and technology played an essential role; he could not envisage their total overthrow as had the early Marx. He had to find a more subtle version of the revolutionary resolution of the antinomy of subject and object. Reification is a form of objectivity, that is, an apriori condition of meaning. This is not exactly a Kantian apriori since it is enacted in social reality by human beings, rather than by an abstract subject that can never be an object. Nevertheless, it operates at the level of the intelligibility of the world even as it plays a material role in the practical activities that constitute that world. Transposing the antinomy of subject and object to this level makes their reconciliation in a unity possible.

On these terms, the subject need not posit the material existence of nature to overcome the antinomy. Instead, the question is reformulated in terms of the relation of the subject to the system of meanings in which the world is lived and enacted. That relation takes two different forms which are, in effect, "methods", both cognitive and practical. What Lukács rather confusingly called the "contemplative" method of natural science posits reified facts and laws. Science is contemplative not because it is passive, but in the sense that it constructs the world as a system of formal laws that cannot be changed by a dereifying practice. The reification of nature is thus unsurpassable.

The case is different for social institutions which can be transformed ontologically by human action. Reification of society is not an inevitable fate. Social institutions can be transformed ontologically by human action which, in modifying their meaning, changes their actual functioning. The institutionalization of such a “unity of theory and practice” would create a new type of society which Lukács (all too briefly) describes as follows:

The world which confronts man in theory and in practice exhibits a kind of objectivity which—if properly understood—need never stick fast in an immediacy similar to that of forms found earlier on. This objectivity must accordingly be comprehensible as a constant factor mediating between past and future and it must be possible to demonstrate that it is everywhere the product of man and of the development of society. (LUKÁCS, 1971, p. 159)

Had he developed this insight he would have given us an original concept of socialism.

The methodological distinction between contemplative and transforming practice is central to Lukács’s argument. Both are social, although in different ways. All forms of knowledge depend on historically specific apriori constructions of experience. The nature of natural science is a product of one such cultural form, the contemplative form, and so belongs to history even as it posits a world of facts and laws beyond the reach of historical practice. Its contemplative method produces truths about nature but it is ideological in its social scientific application. Lukács thus incorporated science into history through its apriori form of objectivity, not through the constitution of its factual content. The dualism of nature and society is methodological, not metaphysical and is situated within a larger social framework. It thus satisfies the requirements of philosophy of praxis.

The Frankfurt School

I turn now to the Frankfurt School. Both Adorno and Marcuse acknowledge the influence of Lukács’s theory of reification, and Marx’s *1844 Manuscripts* freed Marcuse from Heidegger in 1932. The metacritique of rationality is the most significant link between the Frankfurt School and earlier philosophy of praxis. Like the early Marx and Lukács, these philosophers subscribe to an absolute historicism that grounds a critical perspective on all aspects of the culture of capitalism, including its science and technology. This critique is a direct descendent of Marx’s concept of alienation and Lukács’s theory of reification. These philosophers argue with Lukács that the capitalist construction of experience in modern times is exemplified in the scientific worldview. The limitations of that worldview are manifest in the forms of rationalization characterizing modern societies. However, they reject many of Lukács’ key notions, such as the concept of totality and the unity of theory and practice. Thus in the Frankfurt School, the historical thesis of the philosophy of praxis serves primarily to provide an independent point of view for social critique.

Adorno and Marcuse write in the wake of the revolutionary tide that carried Lukács forward to communism. They still believe in the necessity of a practical resolution of the antinomies of philosophy in a time when it has become elusive. This shifts their focus away from the specific consequences of capitalism toward the more general problem of the structure of modern experience which no longer supports the emergence of class consciousness. The analysis of distorted experience provides a glimpse of what would be revealed by its undistorted counterpart. As Adorno writes, “the true thing determines itself via the false thing” (BLOCH, 1988, p. 12).

The Frankfurt School philosophers still believe that only the proletariat can resolve the antinomies, but they also claim that it is no longer a revolutionary subject. With *Dialectic of enlightenment* the focus shifts from class issues to the domination of nature and the power of the mass media. The concept of instrumental reason in that book resembles Lukács’s concept of reification but cut loose from its original Marxist roots. This text criticizes instrumental rationality in its capitalist form as unbridled power over nature and human beings.

The authors invoke the potential of reflective reason to overcome reification and to reconcile humanity and nature. They appeal to “mindfulness (*Eingedenken*) of nature in the subject” for a standpoint opposed to the dystopian instrumentality that now penetrates even the inner life (ADORNO; HORKHEIMER, 1972, p. 40). We get a hint of what we miss by reflecting on our own belonging to nature as natural beings. In so doing we break with the forced imposition of capitalist forms on experience and the reduction of the subject to a mere cog in the social machine. The point is not to reject rationality, and with it modernity itself, but rather to free it from the *hubris* of domination. This will release the potential for “agreement between human beings and things”, i.e. peace, which Adorno defines as “the state of differentiation without domination, with the differentiated participating in each other” (ADORNO, 1998, p. 247). This is as close as Adorno gets to affirming the unity of subject and object. But the prospects for that appear dim.

Adorno’s later concepts of identity and non-identity recapitulate the form/content dialectic of reification. Identity thinking is formal and loses the content which is recaptured by the dialectics of concrete experience. Modern culture impoverishes experience by “identifying” the experienced object with the abstract concepts

that subsume it in thought and erasing more complex connections and potentialities. Dialectics uncovers the “constellation” of contexts and concepts which enable thought to attain the truth of the object.

Adorno proposed a “rational critique of reason” (ADORNO, 1973, p. 85). He recognized the essential role of instrumental reason while resisting the exorbitant form it takes under capitalism. For example, he argued that the machine is both an oppressive instrument of capitalist domination and contains a promise of service to all humanity through its objective form. “The thing-like quality of the means, which makes the means universally available, its ‘objective validity’ for everyone, itself implies a criticism of the domination from which thought has arisen as its means.” (ADORNO; HORKHEIMER, 1972, pp. 29-30) He made similar arguments in relation to the market and other modern institutions.

This interesting critical approach is never developed beyond brief aphorisms. The concept of “formal bias” I have introduced in my critical theory of technology develops this aspect of Adorno’s argument as a critical method (FEENBERG, 2014). The point is to preserve the emancipatory content of modern institutions while criticizing their biased implementation under capitalism. But because he rejects all revolutionary prospects, Adorno’s version of the philosophy of praxis leads to a dead end that is evident in his and Horkheimer’s 1956 dialogue on theory and practice and in Adorno’s incomprehension in the face of the New Left.

Marcuse’s version of philosophy of praxis is influenced by the phenomenological concept of experience and by the promise of the New Left. He sees the social movements of the 1960s and ‘70s not as a new agent of revolution but as prefiguring an emancipatory mode of experience. Revolution in an advanced society is at least possible in principle on the basis of a generalization of this new way of experiencing the world. This is sufficient for Marcuse to construct a final version of the philosophy of praxis in which the transformation of science and technology plays a central role. Release from the domination of nature and human beings is at least a real possibility in Hegel’s sense. He thus reaches more positive conclusions than Adorno although he too can find no effective agent of change.

Marcuse’s “two dimensional” ontology is close to Adorno’s critique of instrumental reason. Like Adorno’s concept of non-identity, Marcuse’s second dimension contains the potentialities blocked by the existing society. But Marcuse also draws on Husserl and Heidegger’s phenomenological concept of the lifeworld and on the existentialist concept of “project” to work out his critique of technology. These phenomenological concepts are invoked to explain the flawed inheritance of science and technology and the promise of the New Left. The civilizational project of capitalism is committed to technological domination. It increasingly restricts experience and knowledge to their instrumental aspects.

Revolution requires a transformation of the historically evolved “apriori” conditions of experience. Experience must reveal potentialities as intrinsic to its objects. Marcuse refers to an “existential truth” of experience which resembles Adorno’s concept of constellation. That truth is “a synthesis, reassembling the bits and fragments which can be found in distorted humanity and nature. This recollected material has become the domain of the imagination, it has been sanctioned by the repressive societies in art” (MARCUSE, 1972, pp. 69-70). With the New Left and its “new sensibility” a new form of experience emerges that foreshadows such a transformed apriori.

Marcuse’s metacritique of science and technology tied them to their source in the capitalist exploitation of human beings and the earth. “The projection of nature as quantifiable matter... would be the horizon of a concrete societal practice which would be *preserved* in the development of the scientific project.” (MARCUSE, 1964, p. 160) He related the Frankfurt School critique of reified instrumental rationality to the new mode of experience appearing in the New Left, and later, in the environmental movement. Just as reified “technological rationality” is derived from the lifeworld of capitalism, so a radically different rationality is promised by this new mode of experience. A dialectical rationality will incorporate the imagination as the faculty through which the reified form of things is transcended.

Were this new form of experience to be generalized, nature and other human beings would be perceived non-instrumentally, as subjects. Contrary to Habermas’s famous critique, this does not imply conversational familiarity, but rather recognition of the integrity of the object as a substance with its own potentialities. Marcuse proposes a “liberation of nature,” “the recovery of the life-enhancing forces in nature, the sensuous aesthetic qualities which are foreign to a life wasted in unending competitive performance” (MARCUSE, 1972, p. 60). The Subject and object would be united not in an idealistic identity but through shared participation in a community of nature.

But there is an ambiguity: how does this vision apply to science and technology? Does Marcuse intend to “re-enchant” nature or is his theory aimed at a reform of technological design? Like earlier philosophers of praxis, Marcuse rejects naturalism; science belongs to history: “The two layers or aspects of objectivity (physical and historical) are interrelated in such a way that they cannot be insulated from each other; the historical aspect can never be eliminated so radically that only the ‘absolute’ physical layer remains.” (MARCUSE, 1964, p. 218) The historical apriori underlying modern science can thus evolve and change in a future socialist society under the impact of a new mode of experience.

But Marcuse's primary political concern is not with science but with technology. Science cannot be changed successfully by new laws or social arrangements, but these are the means of technological transformation. Socialism will introduce new technological ends which, "as technical ends, would then operate in the project and in the construction of the machinery, and not only in its utilization". Marcuse calls this the "translation of values into technical tasks—the materialization of values" (MARCUSE, 1964, p. 234). The revolution can resolve the antinomies through technological transformation, leaving the transformation of science to the internal evolution of scientific disciplines in a new social context. Marcuse thus constructed a final version of the philosophy of praxis which I have attempted to develop further in a critical theory of technology.

Philosophy of praxis today

Much of Marcuse's thought applies to contemporary social movements, such as the environmental movement, that grew out of the New Left. These movements address the limitations of technical disciplines and designs in terms of the lessons of experience. Often these lessons are reformulated on the basis of counter-expertise in critiques of the dominant approaches. Ordinary people—workers, consumers, victims of pollution—are often the first to notice and protest dangers and abuses. In other cases, users may identify unexploited potentialities of the systems they use and open them up through hacking. This is how the Internet was re-functioned as a communication medium.

All these cases exemplify practically the basic structure of the meta-critique. The desublimation of rationality takes the form of a social critique of rational technical disciplines. The place of need in Marx, of consciousness in Lukács and of the "new sensibility" in Marcuse is now occupied by practical-critical experience with technology in the lifeworld. Labor and class, while they continue to be important, are no longer theoretically central. Labor is one domain of the lifeworld in which people have significant experiences that are brought into relation with the rational forms of technology through various types of social engagement and struggle. But there are other ways of encountering technology that issue in a critical relation to technical disciplines and designs.

Critical theory of technology thus rejects the restriction of much Marxist theory to political economy by critically addressing the whole range of reifications in modern society. These include not only the reification of the economy, but administrative and technological reifications as well as consumption and the capitalist aestheticization of daily life. To be sure, administration, technology and consumption have been shaped by economic forces, but they are not reducible to economics, nor is resistance in these domains less significant for a contemporary radical movement than labor struggle.

Contemporary social movements offer no more than prefigurations of a more democratic structure of modernity. Marcuse's caution in evaluating the promise of the New Left is just as appropriate today. Social struggle can teach us something about a possible transformation of the relation between reason and experience, but that is a far cry from predicting a revolution by simple extrapolation. Nevertheless, we can move beyond the systematic pessimism of Adorno on this basis.

The question whether the philosophy of praxis in this new form can resolve the "antinomies of bourgeois thought" is more difficult. The ambitious claims of the early Marx, Lukács and Marcuse assumed that the meta-critical desublimation of philosophical categories permitted a social resolution of the antinomies. Subject and object, which were conceptually sundered by idealism, could be rejoined when redefined in sociological terms. Though problematic, the application of this schema to nature has always been essential to this program.

A social account of nature and natural science seems more plausible today than at any time in the past. A generation of work in Science and Technology Studies has refuted the positivistic assumptions that separated rationality from its social context. But if rationality is reconceived in that context, then the philosophy of praxis can be grounded in empirical research. The move from a general critique of reason as such to a critique of its various realizations in technologies and technical disciplines renews philosophy of praxis.

The philosophy of praxis is significant for us today as the most developed attempt within Marxism to reflect on the consequences of the rationalization of society under capitalism. It was the first to raise fundamental philosophical questions about science and technology from a critical, dialectical standpoint. It attacked capitalism not at its weak points, such as inequality and poverty, but at its strongest points: the rationality of its markets and management techniques, its idea of progress, its technological efficiency. But it does not reject rationality as such. Rather, philosophy of praxis dared to formulate a "rational critique of reason" that identifies the flaws in modernity's achievements and proposes a rational alternative on a new basis.

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