If the identification of the normative sources of critique remains the most contested area of Frankfurt School Critical Theory, the focal object of its critical efforts has remained remarkably constant: the formation of capital domination and exploitation that is realized through the rationalization of social relations as a whole under the dominion of instrumental rationality. Although it will require modification, we can take instrumental rationality to mean simply means-end rationality, the form of reason required to calculate the necessary and potentially most efficient means for realizing stipulated ends. Critical Theory argues that capital recruits the whole of society to its end of wealth creation – increased capital – by implementing the demands of instrumental reason throughout all the major institutions of society while delegitimizing all competing forms of rational reflection, rational action, and rational interaction. Once we remind ourselves that wealth creation is only a means, an instrument for realizing the satisfaction of human needs, then the societal actualization of instrumental reason, and its virtual hegemony over competing models of rationality, projects a society in which all meaningful human ends disappear.

The names for instrumental reason and its other are multiple; a simple two-column chart makes the range of possibilities evident:

<table>
<thead>
<tr>
<th>Instrumental reason</th>
<th>Substantive reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Means-ends rationality</td>
<td>Ends rationality</td>
</tr>
<tr>
<td>Hypothetical reason</td>
<td>Moral reason</td>
</tr>
<tr>
<td>Causal reason</td>
<td>Teleological reason</td>
</tr>
<tr>
<td>Theoretical reason</td>
<td>Practical reason</td>
</tr>
<tr>
<td>Scientific reason (“is”)</td>
<td>Normative reason (“ought”)</td>
</tr>
<tr>
<td>Technocratic reason</td>
<td>Dialectical reason</td>
</tr>
<tr>
<td>Conceptual reason</td>
<td>Mimetic rationality</td>
</tr>
<tr>
<td>Identity thinking</td>
<td>Nonidentity thinking</td>
</tr>
<tr>
<td>Purposive-rational reason</td>
<td>Communicative reason</td>
</tr>
<tr>
<td>Strategic reason</td>
<td>Communicative reason</td>
</tr>
<tr>
<td>Moral universalist reason</td>
<td>Dialogic/recognitive reason</td>
</tr>
<tr>
<td>Economic reasoning</td>
<td>Political reasoning</td>
</tr>
<tr>
<td>Neoliberal reason</td>
<td>Democratic reason</td>
</tr>
</tbody>
</table>
These terms for instrumental reason and its other could be multiplied. The purpose of stating the contrasts in these ways will become evident later.

We will begin by tracing some of the historical antecedents of the critique of instrumental reason (Section II). In Dialectic of Enlightenment, Max Horkheimer and Theodor W. Adorno provide a genealogy of instrumental reason, demonstrating that modern scientific rationality is, in fact, a version of instrumental rationality, making the idea of instrumental rationality more capacious than it originally appears (Section III). An effort to make good on Horkheimer and Adorno’s failure to explain how instrumental reason can effectively become total is made first by Herbert Marcuse’s One-Dimensional Man (Section IV), then by Jürgen Habermas’s foundational essay “Technology and Science as ‘Ideology’” – an essay dedicated to “Herbert Marcuse on his seventieth birthday, July 19, 1968” (Habermas 1971: 81) (Section V). In Section VI, I argue that instrumental reason has now become total through the contemporary installation of neoliberal reason and rationality.

On the Irrationality of Instrumental Reason: Modern and Ancient Antecedents

Kant’s Critique of Pure Reason stands unequivocally as the first modern critique of instrumental-scientific reason (Velkley 1989). Kant understood that if Newton’s new mathematical physics – uniting terrestrial and celestial mechanics under one uniform set of causal laws – was taken as total, then all human freedom and all moral norms would be dissolved within the determinism of mechanical nature. Kant’s effort to save practical-moral reason from the depredations of theoretical-scientific reason turned on arguing that theoretical reason was but one, albeit necessary, mode of encountering the world and that even the demandingness of causal necessity, invisible to Humean empiricism, came not from the world but from reason’s own conception of what constitutes the world as an object of knowledge. Because reason in part actively constitutes its object domain by imposing a rational form on the deliverances of the senses, then what we know under an all-too-human set of projected categories – space, time, substance, causality, and community – is the world as it appears to human subjects and not as it is in itself. Having limited the claims of theoretical knowing, Kant thereby left rational room for alternative modes of rational encounter. As opposed to the demands of theoretical reason, Kant argued that moral reason normatively governs the grounds on the basis of which it is rational to act: “Act only according to that maxim by which you can at the same time will that it should become a universal law” (Kant 1959: 421). Reason injects the norm of universality into the deliberative considerations through which reasons for action are formed. While theoretical and practical reason are both products of human spontaneity, theoretical reason involves a third-person, spectator point of view, while practical reason institutes a first-person, agent perspective; by itself, this provides a good reason for considering reason as at least dual – irreducibly theoretical and practical – if not plural in character.

Later idealists supported Kant’s heroic effort to salvage human freedom and morality from the ravages of mechanistic science, distinguishing the claims of instrumental-theoretical reason from moral-practical reason. However, beginning with Schiller and Hegel, they also argued that Kant’s construction of morality as requiring “universal law” was, appearances to the contrary, another version of scientific-instrumental reason (Bernstein 2001: 136–187). By requiring that agents disown their empathic identifications and sympathetic concerns, that they bracket and even repress immediate desires, loves, passions, needs, and orienting cares in the name of universal law, rational morality becomes a form of alienation and domination. Kant’s moral universalism, it is argued, is insufficiently distinct from the universalism of theoretical reason; it is theoretical reason dressed in practical terms. The simplest version of
this critique is to say that Kant’s monological conception of reason, in requiring only that all others formally be counted in our moral deliberations – our maxims of action must be ones that all others could, in principle, share – effectively disqualifies the voices of actual dialogue partners from appearing and being heard.

In Kant’s own critique of instrumental reason, the fundamental contrast is between theoretical-scientific reason and practical reason: theoretical-scientific reason would become irrational if it vanished all practical reason and claimed to be total; science, after all, cannot even explain the norms governing scientific reason itself. In the idealist critique of Kantian moral reason, two different fundamental contrasts are at stake: (i) universal/abstract/formal reason versus particular/situated/context-sensitive reason and (ii) monological reason versus dialogical-communicative reason. In these cases, the claim is that universalist moral reason becomes irrational, first, when it dissolves affectively charged claims of sensuous particularity – say, the suffering of another – or overrides contextually formed reasons for action and, second, when it places the demands of abstract rationality – “You must never lie!” – in place of the achievements of communicative interaction. While all versions of Critical Theory are concerned with the emergent authority of scientific-technological reason driving out the claims of practical reason, Horkheimer and Adorno’s genealogy of reason focuses primarily on the contrast between abstract universality and concrete sensuous particularity, while Habermas is primarily concerned with the duality between monological reason and communicative reason.

Yet these constructions of reason that have their origin in Kant’s engagement with Newtonian science and Hegel’s critique of Kantian moral reason seem remote from capital domination and the instrumental logic of wealth creation. In order to draw a bead on the logics of economic reason, we need to step back even further in history.

In Chapters VIII–XI of Book I of The Politics, Aristotle interrogates the art of acquisition, “chrematistic” or, as we might call it, economic reasoning. What quickly becomes evident is that Aristotle means his analysis to distinguish rational economic activity from irrational economic activity in a situation in which what he regards as irrational practices of wealth acquisition are fast becoming normalized and dominant (Aristotle 1962: l.1x.16). What is at stake in the debate is what counts as true wealth. Aristotle’s answer to this question is that true wealth is “the amount of household property which suffices for a good life” (Aristotle 1962: l.vii.14), that is, true wealth involves having all and only those goods that are “necessary for life and useful to the association of the polis or the household, which are capable of being stored” (Aristotle 1962: l.viii.13). The sudden lurch into “useful to the association of the polis” indicates the true end of wealth acquisition: fulfilling one’s ethical destiny as a zoon politikon. Which thus explains that final phrase – “which are capable of being stored”: true wealth is naturally limited and finite because what human living requires are only those goods that are themselves necessary for virtuous living. What is in excess of what is necessary is ethically and rationally superfluous, and hence irrational to pursue or acquire.

If true wealth involves having the ethically requisite goods, illusory or irrational wealth comes into play when the natural practice of exchanging goods, barter – exchanging a chair for three pairs of sandals, say – is replaced by exchange conducted through the medium of currency, money, for profit. While Aristotle agrees that retail trade, selling goods for a profit, can be convenient for a community, it becomes radically distorting and irrational when the endless accumulation of monetary wealth becomes the social measure of true wealth. Not only is monetary wealth useless in itself – you cannot eat a gold coin or live in one, which is the point of the Midas fable – but the idea of monetary wealth makes the art of acquisition unlimited, hence without end, so purposeless or meaningless in itself. If even goods and chattels are simply means for well-being, then money is solely a means for acquiring the means for well-being; money, we might say, is intrinsically instrumental, intrinsically without meaning.
or purpose in itself, and thus only a means for acquiring true wealth which, again, is also only a means. While anxiety about one's livelihood and the desire for physical enjoyments that belong to human well-being (Aristotle 1962: I.x.16) may lead to seeking a superfluity of means, the psychological explanation for this pursuit does not amount to a justification of it. Seeking unlimited monetary wealth is a paradigm of irrational conduct. Or so it seemed to Aristotle; yet we have come to accept it as natural, rational, and even collectively necessary.

In his incisive essay “Industrialization and Capitalism in the Work of Max Weber,” Marcuse outlines and extends Weber's account of how capitalist rationality – which involves abstraction, the reduction of quality (use values) to quantity (exchange values), and universal functionalization, all enabling “the calculable and calculated domination of nature and man” (Marcuse 1968: 205) – turns what was once considered irrational, or merely instrumentally rational, into rationality itself.

If it remains the case that the ultimate or final aim of economic activity is the provision of human needs, how does it come about that the means to this end, the seeking of unlimited monetary wealth, has itself become the driving force of economic life and the condition of societal reproduction? Two historical facts are sufficient to accomplish this transposition of means into end: (1) the pursuit of economic ends is “carried out in the framework of private enterprise and its calculable chances of gain, that is, within the framework of the profit of the individual entrepreneur or enterprise; and (2) consequently, the existence of those whose needs are to be satisfied depends on the profit opportunities of the capitalist enterprise” (Marcuse 1968: 206; italics JMB). Once private ownership over the means of production becomes effectively universal, it follows that all goods can be acquired only through market transactions, through exchange. Hence, need satisfaction is only available through the mechanisms that conduce to capitalist profit making. At the extreme, Marcuse underlines, this dependence of the existence of all on the profit-making opportunities of the capitalist is realized when humans have to sell their labor to entrepreneurs in order to survive.

Once money, the doubly instrumental means to well-being, the means for acquiring the other means for survival and more than survival, becomes universally required as a means, the once irrational proposition of acquiring unlimited wealth becomes the presumptive end of collective economic activity, hence rational in itself.

In the unfolding of capitalist rationality, irrationality becomes reason: reason as frantic development of productivity, conquest of nature, enlargement of the mass of goods (and their accessibility for broad strata of the population); irrational because higher productivity, domination of nature, and social wealth become destructive forces.

(Marcuse 1968: 207)

While the gist of the idea that capitalist reason unleashes “destructive forces” and is thereby irrational in itself is clear enough, in this setting, Marcuse does not say enough as to why capitalist reason should be regarded as irrational, the conversion of a means into an end that is end-destroying. It is just making precise this critique of instrumental reason that is the recurrent object of Critical Theory.

The Genealogy of Instrumental Reason

In offering a genealogy of instrumental reason, Horkheimer and Adorno explain why we should regard modern scientific reason as a form of instrumental reason and why that formation of reason is potentially irrational in itself unless it comes under the control of or is paired...
off in relation to a reason that conduces to substantive human ends. Let me begin with the obvious; here is a list of twenty-seven acts, each of which has reasonable title to be thought of as cognitive or rational, works of human sapience (in whole or part), that in being rule- or norm-governed are thus rationally criticizable – which is a fair criterion of what makes a practice cognitive: naming, reporting, narrating, describing, evaluating (either weighing options or on a determinate scale), measuring, deliberating, explaining, communicating, expressing, interpreting, understanding, imitating, representing, experimenting, determinative judging, reflective judging, translating, presenting, remembering, acts of deduction, induction and abduction, mapping, scanning, composing (e.g., a fugue), and so on. Whether the acts listed are fully distinct, or some are really species of another (explaining a species of the genus deduction, for example) can be left open. What is striking is that already in Kant’s anatomy of human reason, effectively only theoretical and practical reason (in its hypothetical and moral forms) are left standing as unequivocally authoritative and rational, with reflective judging scrunched haplessly between them (Bernstein 1992: Chapter 1). Even before the emergence of modern positivism, cognition had been effectively reduced to either scientific knowing or moral legislation – with morality precariously balanced, doomed to fall off the pedestal of rationality during the following century. The effective triumph of instrumental reason begins with the hegemony of modern science over human knowing – any claimed cognition that cannot be further translated into science is eliminated from the cognitive canon – leaving instrumental reason to practically install itself through capital’s insistent effort to recruit and regiment the whole of social practice to its ends.

The two gestures are united, according to Horkheimer and Adorno, because instrumental reason emerges from its very beginnings in a form in which abstract universality – the unchanging structure of a unitary natural world – devours sensuous particularity and concrete singularity. Genealogically, they perceive the idea of the unity of science as but a further version of mythic patterns of seasonal change: “The world as a gigantic analytic judgment, the only surviving dream of science, is of the same kind as the cosmic myth which linked the alternation of spring and autumn to the abduction of Persephone” (Horkheimer and Adorno 2002: 20). Pressing this thought further, they argue that this model of knowledge, “the subsumption of the actual, whether under mythical prehistory or under mathematical formalism,” is one opposed to radically transformative human action and human invention because, in reducing the different to the same, or what is its equal, making “the new appear as something predetermined which therefore is really the old,” any future that is not repetition is occluded (Horkheimer and Adorno 2002: 21). Why is this structure, “the principle of immanence, the explanation of every event as repetition” (Horkheimer and Adorno 2002: 8), so rationally powerful?

In order to answer that question, we need crude beginnings. Why do humans propose mythic accounts of the world in the first place? Horkheimer and Adorno propound fear of overwhelming and threatening nature as one motive engine behind efforts of human knowing.

The concept, usually defined as the unity of the features of what it subsumes, was rather, from the first, a product of dialectical thinking, in which each thing is what it is only by becoming what it is not. This was the primal form of the objectifying definition, in which concept and thing became separate …The gods cannot take away fear from human beings, the petrified cries of whom they bear as their names. Humans believe themselves free of fear when there is no longer anything unknown. This has determined the path of demythologization, of enlightenment, which equates the living with the nonliving as myth had equated the nonliving with the living. Enlightenment is mythical fear radicalized. The pure immanence of
positivism, its ultimate product, is nothing other than a form of universal taboo. Nothing is allowed to remain outside, since the mere idea of the “outside” is the real source of fear.

(Horkheimer and Adorno 2002: 11; italics JMB)

There is much to unpack in this remarkable passage. Broadly, Horkheimer and Adorno take myth to have been originally equal parts mimetic responsiveness, narration, and (pseudo-) explanation. Myth finally fails because, while it succeeds in making the unfamiliar familiar, as in the cycle of seasons, it does not enable practical control. Enlightenment – which throughout is the code term for the process through which instrumental reason eviscerates its others and becomes hegemonic over knowing and rationality – begins when enlightenment critiques myth. The enlightenment critique of myth operates through virtually the same mechanisms as concept formation generally: the reflective process through which each object becomes what it is not.

What Horkheimer and Adorno mean by this hyperbolic locution of “making things into what they are not” is that in order for some immediately invasive, unknown phenomenon to become known, its immediacy must be negated, and further, it must be placed into a pattern of like occasions: tiny-buzzing-objects-delivering-small-bites is given a concept name, “mosquito,” little fly. The concept detaches the living phenomenon from the experience of it and hence de-subjectivizes it and makes it a worldly element. The actual living-and-biting mosquito is delivered over into the nonliving, abstract species: *mosquito*, the *Culicidae* family. We can acquire confidence that our concept is objective if we can control individual specimens; covering our ears so we don’t hear the buzz doesn’t stop the bite, but vigorously waving a palm leaf does. Further insight and control is enabled when we can bring “mosquito” under a wider, even more abstract concept, say the genus *Culex*. Notice the pattern of this knowing: (i) *reiteration*, that is, taking a singular experience-item and turning it into a repeating kind; (ii) *ascent* from sensuous immediacy to some empirical universality that can be repeated by ascent to a more abstract universality ad infinitum; and (iii) taking as true solely those patterns that enable *causal manipulation and control*, thus making reference to the gods otiose (Bernstein 2001: 77–90). In this way, knowledge as deduction from first principles, like Newton’s laws of motion, and knowledge as the possibility of causal manipulation and control are joined. Genealogy reveals how science and technology are grammatically joined from the outset. Instrumental reason, so understood, is all that knowing can be. How can the narrating of past events, say, compare with that?

Enlightenment demythologization can now be interpreted as the critical process through which any feature of experience that depends upon subjective experience for its reality – paradigmatically, the perceiving of sensory color arrays – is to be eliminated as less than fully real. Because the emphatic form of scientific knowledge is genealogically bound to its formation out of fear of the unknown and the desire for control and mastery, even at its heights, scientific knowledge is the drive to self-preservation in rational form. It further follows that the same method of negation and overcoming of the naturally given can structure rational morality: “all that reminds us of nature is inferior, so the unity of the self-preserving thought may devour it without misgivings… The sublime mercilessness of the moral law was this kind of rationalized rage at nonidentity” (Adorno 1973: 23).

Horkheimer and Adorno take it as patent that the same underlying mechanisms of rationalization that enjoined the mathematization of nature have enjoined the procedures of capital production whereby every qualitative use value must be quantified into an exchange value (Marx 1976: 125–244), with further mechanisms of supply and demand, monetary policy, borrowing rates, financialization, etc. allowing the economy as a whole to become a complex, presumptively law-governed machine. Critical Theory begins with the pessimistic
thought that not socialism but fascism represents the realization of modern rationality since it continued reason's work of domination through integration and unification. Auschwitz completes the process: “in the camps it was no longer an individual but a specimen who died” (Adorno 1973: 362). In Dialectic of Enlightenment, however, Horkheimer and Adorno, looking forward to our present, exemplify their thesis that instrumental rationality has now become total in their account of the culture industry (Horkheimer and Adorno 2002: 94–135). They argue that the culture industry – the name intended as an oxymoron; the process it depicts the turning of culture away from resistant ideality and toward disabling pacification (Bernstein 1991: 1–25) – is the form society integration takes in liberal capitalist regimes. While the idea of the culture industry seems plausible enough (Adorno 1991), giving it the role of demonstrating how instrumental rationality becomes total is implausible. However numbing Hollywood cinema could be and however exhausting soap opera television would become, they can hardly be thought of as the realization of instrumental rationality, the final piece of the puzzle that allows it to become total. The culture industry thesis is too remote from the truly dynamic and innovative powers of capital. And it is there we need to look in order to gain a clearer insight into how instrumental reason could not only become hegemonic with respect to human knowing and morality – for that claim, Horkheimer and Adorno's theory seems powerful (Bernstein 2001) – but also become effectively total for social practice generally.

**Capitalist Reason: Fusing Technology and Domination**

In the 1859 Preface to A Contribution to the Critique of Political Economy, Marx argues that within an economic regime, the scientific, technological, and material forces of production continue to grow and develop until such time as the existing relations of production, the existing legally codified property relations of the regime, become “fetters” to continuing development; at this moment “begins an epoch of social revolution” (Marx 1971: 21). On this account, an economic regime becomes irrational when its relations of production prevent continued and further development of existing forces of production, preventing the expansion, improvement, and creation of new forces of production. Yet, as Marx himself was aware, this is a poor description of capitalism. As he famously urges in The Communist Manifesto,

> The bourgeoisie cannot exist without constantly revolutionizing the instruments of production, and thereby the relations of production, and with them the whole relations of society…Constant revolutionizing of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation distinguish the bourgeois epoch from all earlier ones.

(Marx 1977: 224)

In Capital, Volume I, Marx is even more explicit about how, by the nineteenth century, the traditional craft development of manufacturing processes suddenly gave way to development through “the modern science of technology.” Marx continues,

> Modern industry never views or treats the existing form of a production process as the definitive one. Its technical basis is therefore revolutionary, whereas all earlier modes of production were essentially conservative. By means of machinery, chemical processes and other methods, it is continually transforming not only the technical basis of production but also the functions of the work and the social combinations of the labor process.

(Marx 1976: 617; italics JMB)
Later in the same paragraph, Marx goes on to chart the human costs of the now revolutionary technical basis for large-scale industry.

We have seen how this contradiction does away with all repose, all fixity and all security as far as the worker's life-situation is concerned; how it constantly threatens, by taking away the instruments of labour, to snatch from his hands the means of subsistence, and by suppressing his special function, to make him superfluous. We have seen, too, how this contradiction bursts forth without restraint in the ceaseless human sacrifices required from the working class, the reckless squandering of labour-powers, and the devastating effects of social anarchy. This is the negative side.

(Marx 1976: 617–618)

If one were in doubt about whether Marx was here making an ethical critique of capital, he concludes this same paragraph by arguing that the “monstrosity, the disposable working population held in reserve, in misery” for whatever labor capital might require at any time should be replaced by “the individual man,” by, that is, “the totally developed individual, for whom different social functions are different modes of activity he takes up in turn” (Marx 1976: 618).

Arguably, Marx adopted this ethical mode of critique because, in fact, capital relations of production are perfectly suited to the science and technology-driven revolutionary growth in forces of production that have become intrinsic to capital development in general. But if this is the case, then from where within capital is such a critique to be lodged? For maximizing the sheer growth potential of modern technology, capital's own restless process of seeking wealth creation seems an ideal partner: the desire for profit spurs technological innovation, and technological innovations spur new paths for profit making and wealth creation. It is the premise of Marcuse's One-Dimensional Man that it is this entanglement of science and technology with capital that is now the source of the rationality deficits of capital, that capital should be understood as the ensemble of technocratic rationality (one version of instrumental rationality) and capitalist relations of production (another version of instrumental rationality) whose essential character is to eviscerate and dissolve competing conceptions of reason and rationality. After all, if one thinks that modern science is the paradigm case of human knowledge, and modern technology is the paradigm case of the practical utilization of modern scientific knowing for benefiting human living, then because capital's restless pursuit of profit and wealth occurs through the maximization of technological advancement, it follows that under conditions in which growth in need satisfaction is the erratic but continuous by-product of economic growth, capital reason can authorize itself as the social form appropriate to modern technological rationality, making the capital-technology ensemble the realization of a wholly modern idea of rationality – instrumental rationality become total.

Marcuse's version of the thesis that there is now no alternative to capital thus states, “when technics becomes the universal form of material production, it circumscribes an entire culture; it circumscribes an entire culture; it projects a historical totality – a ‘world’” (Marcuse 1986: 154).

Marcuse's orienting thesis that the ensemble of science, technology, and capital should be construed as a totalizing political project in which capitalist exploitation – the interests and power of the capitalist class – is veiled by technological rationality is an incisive insight into modern societies. Notoriously, however, in order to forge an appropriate critique of technocratic capital, Marcuse is tempted by the thesis that neither modern science nor modern technology are neutral in themselves; they are intrinsically dominating and destructive: “It is my purpose to demonstrate the internal instrumentalist character of this scientific rationality
by virtue of which it is a priori technology, and the a priori of a specific technology – namely, technology as a form of social control and domination” (Marcuse 1986: 157–158).

Here is the gist of Marcuse’s disastrous argument:

The principles of modern science were a priori structured in such a way that they could serve as conceptual instruments for a universe of self-propelling productive control; theoretical operationalism came to correspond to practical operationalism. The scientific method which to the ever-more-effective domination of nature thus came to provide the pure concepts as well as the instrumentalities of the ever-more-effective domination of man by man through the domination of nature.

(Marcuse 1986: 158)

Although it is not transparent to which “principles” Marcuse is referring, let us assume that he intends the abstraction from context and sensuous particularity that enabled the reduction of quality to quantity and the elimination of all features of things not subject to causal manipulation. Jointly, these requirements empty the world of value properties. It is these features of scientific rationality that, again, a priori make scientific results available for instrumental employment.

Scientific knowledge is potentially technologically exploitable because it is causally bound. Nonetheless, there is a huge gap between items being in principle subject to causal manipulation and the claim that what arises through these means is biased in the direction of control and domination. Surely, the most obvious feature of modern technology is that it is indiscriminate – effectively neutral – between productive and destructive uses: the undeniable progress that comes with the invention of electric lighting, indoor plumbing, energy production, and lifesaving vaccines can be contrasted with the emphatic destruction of the polluting of vital water supplies, the depositing of carbon dioxide and greenhouse gases into the atmosphere causing global warming, deforestation, and the extinction of whole species of living beings at between 1,000 and 10,000 times the (naturally occurring) background rate on the other.

Such indiscriminateness between what is humanly productive and what is insistently naturally and humanly destructive is a kind of irrationality in its own right, albeit one very different from the direct “fusion of technology and domination” (Habermas 1971: 85) that Marcuse had in mind. Indiscriminateness, it might thus be argued (Feenberg 1988: 242–244), reveals a bias within presumptive neutrality when what is being evaluated is not science and technology on their own but solely as components of the capitalist ensemble, a linkage of science to technology and technology to capital production that has been the social shape of all these practices since the nineteenth century. Because societal rationalization under the dominion of technological reason has occurred within capitalist relations of production, “rational” advances have always leaned emphatically toward those suitable for wealth creation. What appears indiscriminate from the perspective of human advancement is determined and rational from the perspective of wealth creation. Hence, capital reason is indiscriminate and irrational.

We have now returned to the exact place where our discussion of the long paragraph from Capital broke off, namely, with capital’s technologically charged revolutionary dynamic being indifferent to the human and natural wreckage it leaves in its wake. The question we raised there remains: from what vantage point is the critique of capital reason to be lodged? Whither the presumptive authority of the human and natural good that technology destroys? A vindicable critique of instrumental reason minimally involves legitimating a
contrasting form of reason. Marcuse’s effort to legitimate “dialectical reason” is more gesture than irrefragable argument. Scientific knowing is always descriptive, binding knowledge to the given in its insistent present, a simple saying of how things truly are. Dialectical reason, conversely, conceives of things in light of what can be regarded as their “essential potentialities” (Feenberg 1988: 246): just as it is the essential potentiality of the acorn to become an oak, it is the essential historical potentiality of modern technology, Marcuse argues, to be oriented toward “pacification” (of the struggle for existence between man and nature, and man and man) and the “free development of human needs and faculties” through determinate negation, that is, through practices that see in the current situation occluded possibilities that would become available for realization through the negation of specific limiting factors – above all, capitalist class relations (Marcuse 1986: 218–223).

Labor and Interaction: Practical Reason versus Communicative Reason

Even if one is sympathetic to Marcuse’s modest adumbration of an alternative social ontology, he does not go nearly far enough in sourcing it within social relations. From the beginning of his career, Habermas sought to distinguish and vindicate an alternative to instrumental rationality while providing a systematic explanation of its all too evident social triumph. Habermas distinguishes two irreducible forms of human action: purposive-rational action and communicative action. Purposive-rational action comes in two varieties: actions directed toward things, instrumental action, and actions directed toward human others as if they were mere things, strategic action. Communicative action is a form of symbolic interaction among humans governed by binding consensual norms, which define reciprocal expectations about behavior and which must be understood and recognized by at least two acting subjects. Social norms are enforced through sanctions. Their meaning is objectified in ordinary language communication. While the validity of technical rules and strategies depends on that of empirically true or analytically correct propositions, the validity of social norms is grounded only in the intersubjectivity of mutual understanding of intentions and secured by the general recognition of obligations.

(Habermas 1971: 92)

Habermas provides a useful chart distinguishing the two action types (Habermas 1971: 93) (Table 1.1):

The thought that ordinary language is a mechanism of communication and interaction, and, simultaneously, a repository of authoritative norms and values – some internalized as components of rational personality while others remaining external social norms, laws, governing reluctant conduct – would seem prima facie unassailable. Over the course of his career, Habermas has been routinely tempted by panicky and exorbitant defenses of the authority of communicative action; for example, “What raises us out of nature is the only thing whose nature we can know: language. Through its structure, autonomy and responsibility are posited for us. Our first sentence expresses unequivocally the intention of a universal and unconstrained consensus” (Habermas 1972: 314). None of these claims possess even prima facie plausibility. Nonetheless, the space to which communicative action points, of normatively structured practices of interdependence among socially cooperating subjects, is essential to even a minimal conception of human self-consciousness (Bernstein 2015).

Habermas’s broad thesis is that traditional society was held in place by the validity of intersubjectively shared norms and values accepted as immune to critical interrogation,
hence by the subordination of subsystems of rational action to symbolic norms. Because within modern societies, those same subsystems of rational action have institutionalized incessant innovation, their very revolutionizing dynamism makes the domain of intersubjective normativity subject to adaptive pressures from below, and, at the same time and thereby, critique, thus making the norms hibernating in communicative reason in continuing and urgent need of reflective validation (Habermas 1971: 94–96). The innovative dynamism of the subsystems of rational action – science, technology, and the market – inevitably expand their reach, including under their control practices heretofore normatively regulated: “the organization of labor and of trade, the network of transportation, information, and communication, the institutions of private law, and, starting with financial administration, the state bureaucracy” (Habermas 1971: 98). In this way, logics of instrumental action begin overtaking and absorbing domains previously subject to solely communicative modes of justification and validation. This is what Marcuse meant by the “functionalization” of society.

From this point on, Habermas’s argument can join hands with Marcuse’s, with some noteworthy variations: the institution of the market in which propertyless individuals exchange their labor power “promises that exchange relations will be and are just owing to equivalence,” thus making bourgeois justice emerge from below (in the market) rather than from above (from political authority); traditional worldviews are replaced by “subjective belief systems and ethics”; the new modes of instrumental legitimation, by criticizing the dogmatism of traditional metaphysical beliefs systems, can don the mantle of science; this latter process entails that “ideologies are coeval with the critique of ideology” (Habermas 1971: 97–99). Where Marcuse and Habermas join is over the threefold claim: (i) “With the advent of large-scale industrial research, science, technology, and industrial utilization were fused into a system” (Habermas 1971: 104); (ii) with the “institutionalization of scientific-technical progress, the potential of the productive forces has assumed a form owing to which men lose consciousness of the dualism of work and interaction” (Habermas 1971: 105; italics JMB); and (iii) technocratic consciousness, as the ideological alibi for
capital expansion, no longer appears as ideology because “it is not based in the same way on the causality of dissociated symbols and unconscious motives, which generates both false consciousness and the power of reflection to which the critique of ideology is indebted” (Habermas 1971: 111).

Although Habermas will expand and elaborate these theses at length, the second in particular is on its surface peculiar: so hypnotized have we become by technology and science as ideologies, we have simply lost consciousness of the dualism of work and interaction. Even in 1968, this was a dubious account of the fate of value consciousness in late modernity, as if ‘68 itself never happened, or civil rights, or feminism, or the return of religious consciousness, or protests to save the environment, or any of the other clarification calls of value-oriented (value-rational) consciousness. Such consciousness may indeed have become increasingly ineffective, in part because it has been subordinated to the adaptive demands for economic growth as a societal a priori, but is that a full and adequate explanation for the evident and continuing dissolution of effective democratic decision making into “plebiscitary decisions about alternative sets of leaders of administrative personnel” (Habermas 1971: 105)?

Neoliberal (Instrumental) Reason: The End of Democracy?

Despite the jeremiads of Critical Theory, the heroic battles by labor unions to protect the rights and lives of workers, and the great struggles of socialist and communist parties throughout Europe, the truth is that from the end of the nineteenth century through the first three-quarters of the twentieth century, what can be called the great settlement between capitalist production and liberal democracy looked to an emerging majority of citizens of the North Atlantic civilization as a viable and worthy civilizational option. The ruthless yet spectacular productivity of capital, despite its recurrent crises, appeared to be an increasingly viable mechanism for need satisfaction, while the liberal democratic state, however compromised by big business and financial capital, seemed legitimate enough as it fought to offset the human costs of capital; adopted pro-employment Keynesian economic policies; and, by expanding educational opportunities, increased the proportion of the population having access to its benefits. Piquantly capturing a vital moment of twentieth-century desire and hopefulness, Paola Marrati states that “The American dream is…no less universal than the communist dream. The American nation-civilization distinguishes itself from the old nations: it wants to be the country of all immigrants, the new world, but the new world is precisely the one that finally accomplishes the broken promises of the old world” (Marrati 2008: 102).

All that American dreaming and European welfare state desire and hopefulness that were especially vibrant and gripping in the years immediately following World War II are now – as of January 1, 2017 – in shreds: the historic tendency of capital to increase the inequality between the wealthy and the rest of the populace has massively reasserted itself (Piketty 2014); everywhere the welfare state is being slowly dismantled and/or privatized, and the pace of destitution of the environment increases daily. Whatever democratic self-determination once meant, it now seems but a thin accompaniment to a plutocratic capitalism, a willing henchman for securing the worst.

But this new state of political paralysis, this current and even more emphatic reduction of democracy to becoming the administrative helpmate of capital domination, is less a product of the science and technology ideological contouring of capital, although that ideological tune can still be heard, basso, in the winds of change, than of a new formation of instrumental reason: neoliberal reason. There is a hint of this transformation in Habermas when he argues that “technocratic consciousness reflects not the sundering of an ethical
situation but the repression of ‘ethics’ as such as a category of life. The common, positivist way of thinking renders inert the frame of reference of interactions in ordinary language” (Habermas 1971: 112). Nonetheless, the thesis that it is “technocratic consciousness” that represses ethics “as a category of life” is too narrow to be an adequate explanation. Habermas, like Marcuse, thinks of capital as “emanating” a form of repressive rationality rather than instituting a new political rationality of its own (Brown 2015: 119–120). Neoliberal reason is a constitutive form of political reason that operates through a restructuring of subjectivity and self-consciousness; it operates by giving the agent a new normative self-understanding by instituting new rational norms for action, a new conduct of conduct (Foucault 2008), that means to systematically displace and finally erase ethical normativity as such. It is in the work of Michel Foucault and Wendy Brown that we find this completion of the Critical Theory account of instrumental reason.

In the first instance, neoliberalism emerges as an ideological project, namely, to model the overall exercise of political power on the principles of the market economy. Initially, this leads to a familiar bundle of policy prescriptions: the deregulation of enterprises and financial markets, the reduction of welfare state provisions, the removing of state protections for the most vulnerable, the privatizing and outsourcing of what had been public goods, and a shift away from progressive tax schemes and toward regressive ones (Brown 2015: 28). But these policy shifts themselves ride on the back of two more far-reaching, norm-destroying structural transformations. As noted earlier, even if honored only in the breach, the idea of fair exchange belongs to the normative infrastructure of market relations under capital that stretches up and into the ideals of liberal justice. Neoliberalism replaces the exchange of commodities by “mechanisms of competition” that are in no way natural, not a product of the “natural interplay of appetites, instincts, behavior”; rather, competition is conceived of as a privilege and a formalization of social interactions set in place through “the price mechanism” (Foucault 2008: 147; 120; 131). After all, it is competition among enterprises rather than a fair exchange of commodities that promotes economic growth. But once one makes competition primary over exchange, the very idea of equality and equality-driven conceptions of justice must be surrendered. Inequality is not only inevitable in capitalism; it is also a necessary consequence of a system of competition in which there are winners and losers; any effort to correct for inequality would hence disturb the dynamic of competition which is the motor of growth.

In order for these shifts from normative regulation – fair exchange and equality – into competitively structured instrumental practices of wealth acquisition to become fully actual, economic agents must somehow reconceive their fundamental acts: if workers are not exchanging their labor power as a commodity for money, what are they doing? Neoliberalists argue that economics is not the analysis of processes but the analysis of an activity; hence, it perceives workers not as objects of capitalist mechanisms but as subjects of market interactions. Here is Foucault’s description of the path through which labor is reconceived of as human capital, beginning with the obvious thought that people work for a wage, and their wage equals their income:

From the point of view of the worker, the wage is an income, not [pace Marx] the price at which he sells his labor power … An income is quite simply the product or return on a capital. Conversely, we will call “capital” everything that in one way or another can be a source of future income… Now what is the capital of which the wage is the income? Well, it is all those physical and psychological factors which make someone able to earn this or that wage… If[capital is thus defined as that which makes future income possible, this income being a wage, then you can see that it is a capital which in practical terms is inseparable from the person who
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possesses it… This is not a conception of labor power; it is a conception of capital-ability which according to diverse variables, receives a certain income that is a wage, an income wage, so that the worker himself appears as a sort of enterprise for himself.

(Foucault 2008: 224–225)

If wages can be taken as a return on capital, then the worker herself, all the abilities she does or could invest in her working, is capital; hence, she is effectively an enterprise. If the worker can appear as an enterprise for herself, then it follows that the whole of society can be theorized as made up of “enterprise-units, [which] is at once the principle of decipherment linked to [neo]liberalism and its programming for the rationalization of a society and an economy” (Foucault 2008: 225). The rationalization of society can be completed if market relations can become the model of all social interactions, that is, if social relations as a whole can be economized; this becomes possible once the principle of optimizing “the allocation of scarce resources to a determinate end” can be generalized (Foucault 2008: 269). But this can be generalized to any actions that are necessarily “sensitive to modifications in the variables of the environment” in nonrandom ways (Foucault 2008: 269).

Neoliberalism is not exhaustively a set of economic policies, a phase of capitalist development, or an ideology; it is a form of reason that turns citizen-subjects into human capital, into enterprises and entrepreneurs of their own lives (Brown 2015: 31). Neoliberalism universalizes market instrumental rationality by turning citizen-subjects into uniformly atomistic economic units who are forced to conceive of themselves in entrepreneurial and enterprise terms. Neoliberalism is in the first instance a theoretical way of modeling economic life, but by instituting a series of policies – privatizing public goods, removing welfare protections, legitimating competition and inequality, etc. – it comes to require a new self-fashioning of the subject where each, in order to participate in society and in order to survive, must conceive of herself as human capital and hence adopt new norms of rational behavior – instrumental norms. For example, even the economic refugee is no longer a hungry and needy subject in search of work; he is a part of the enterprise culture: “Migration is an investment; the migrant is an investor. He is an entrepreneur of himself who incurs expenses by investing [= migrating] to obtain some kind of improvement” (Foucault 2008: 230). And casting the net even wider, mothering can be conceived of as investing in “the child’s human capital, which will produce an income,” while the mother’s return on her investment “will be a psychical income” (Foucault 2008: 244). Nothing escapes the net of rationalization; all human relations are instrumental.

In this world, there are no affective bonds and no recognized human dependencies; good governance becomes problem-solving rather than justice making; the rule of law is instrumentalized, and the market itself becomes the ultimate truth-maker, “the site of veridiction” (Brown 2015: 67). Above all, Brown argues, homo politicus disappears.

This subject, homo politicus, forms the substance and legitimacy of whatever democracy might mean beyond securing the individual provisioning of individual ends; this “beyond” includes political equality and freedom, representation, popular sovereignty, and deliberation and judgment about the public good and the common.

(Brown 2015: 87)

As we have argued throughout, the critique of instrumental reason depends on the sustaining of “a different lexical and semiotic register from capital” (Brown 2015: 208). Moral reason, dialectical reason, and communicative reason are each an effort in this direction.
Arguably, however, whatever the conceptual bona fides of these competing rationalities are, they can only be effective in relation to neoliberalism's economization and financialization of social relations through a competing institutional practice. In urging the claims of democracy against the market, Brown is also urging the rationality of homo politicus as a theoretical and practical critical counterweight to the incipient reign of homo oeconomicus. If the republican ideal of active citizenship promoting the public good truly fades from view, finally stops inspiring collective public action, there is no reason to believe that a philosophical critique of neoliberal reason, instrumental reason triumphant, could matter.

References


Further Reading