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## The Great Caliban The Struggle Against the Rebel Body

Life is but a motion of limbs.... For what is the heart, but a spring; and the nerves, but so many strings; and the joints but so many wheels, giving motion to the whole body.... (Hobbes, *Leviathan*).

Yet I will be a more noble creature, and at the very time when my natural necessities debase me into the condition of the Beast, my Spirit shall rise and soar and fly up towards the employment of the angels. (Cotton Mather, *Diary*).

...take some Pity on me... for my Friends is very Poor, and my Mother is very sick, and I am to die next Wednesday morning, so I hope you will be so good as to give my Friends a small Trifill of Money to pay for a Coffin and a Shroud, for to take my body a way from the Tree in that I am to die on... and don't be faint Hearted... so I hope you will take it into Consideration of my poor Body, and consedar if it was your own Race, you would be willing to have your Body saved from the Surgeons (Letter of Richard Tobin, condemned to death in London in 1739).

It is in the 16th-century that in the areas of Western Europe most affected by the Protestant Reformation and the rise to power of the mercantile bourgeoisie, we see emerging, in every aspect of social life, a new concept of the person. Its most ideal embodiment is the Shakespearean Prospero of the *Tempest* who is the synthesis between the celestial spirituality of Ariel and the brutish materiality of Caliban, and yet betrays an anxiety over the achieved equilibrium that rules out any pride for "Man's" unique position in the Great Chain of Being<sup>2</sup>. In defeating Caliban, Prospero must admit that "this thing of darkness is mine," thus reminding his audience that our human partaking of the angel and the beast is problematic indeed.

In the 17th century, what in Prospero remains a subliminal intuition is formalized as the conflict between Reason and the Passions of the Body which recasts classic Christian-Judeo themes into a new anthropological paradigm. The outcome is reminiscent of the medieval skirmishes between angels and devils for the possession of the departing soul. But the conflict is now staged within the person who is reconstructed as a battle field, where opposite elements clash for mutual domination. On the one side, there are the

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<sup>2</sup> Prospero is a "new man." Didactically, his misfortunes are attributed by Shakespeare to his excessive interest in magic books, which in the end he renounces for a more active life in his native kingdom, where he will draw his power not from magic, but from the government of his subjects. But already in the island of his exile, his activities prefigure a new world order, where power is not gained through a magic wand but through the enslavement of many Calibans in far distant colonies. Prospero's exploitative management of Caliban prefigures the role of the future plantation master, who will not spare tortures and torments to force his subjects to work.

“forces of Reason”: parsimony, prudence, sense of responsibility, self-control. On the other, the “low instincts of the Body”: lewdness, idleness, systematic dissipation of one’s vital energies. The battle is fought on many fronts because Reason must be vigilant against the attacks of the carnal self, and prevent “the wisdom of the flesh” (in Luther’s words) from corrupting the powers of the mind. In the extreme case, the person becomes a terrain for a war of all against all:

Let me be nothing, if within the compass of my self I do not find the battail of Lepanto: Passions against Reason, Reason against Faith, Faith against the Devil, and my Conscience against all (Thomas Browne 1928: 76).

In the course of this process, a change occurs in the metaphorical field, insofar as the representation of individual psychology borrows images from the body-politics of the state, disclosing a landscape inhabited by “rulers” and “rebellious subjects,” “multitudes” and “seditions,” “chains” and “imperious commands,” and (with Thomas Browne) even the executioner (ibid.: 72)<sup>3</sup>. As we shall see, that the conflict between Reason and the Body is described in terms of a riotous confrontation between the “better” and the “lower sorts” cannot be simply ascribed to the baroque taste for the figurative, later purged in favor of a “more masculine” language<sup>4</sup>. The crossing of political and psychological categories that characterizes the 17th-century metaphorical discourse on the person has a foundation in the social reality of the time. For the battle waged in the microcosm of the individual is an aspect of a broader process of social reformation, whereby, in the “Age of Reason,” the rising bourgeoisie attempted to remold the subordinate classes in conformity with the needs of the developing capitalist economy.

It was in the attempt to form a new type of individual, that the bourgeoisie engaged in that battle against the body that has become its historic mark. According to Weber, the reform of the body is at the core of the bourgeois ethic because the thrust of capitalism is the overcoming of our “natural state.” Capitalism makes acquisition “the ultimate purpose of life,” instead of treating it as a means for the satisfaction of our needs; thus it requires that we forfeit all spontaneous enjoyment of life” (Weber 1958: 53). It also attempts to break the barriers of nature by lengthening the working day beyond the limits

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<sup>3</sup> Pascal too writes, in the *Pensee*: “There is internal war in man between reason and the passions. If he had only reasons without passions.... If he had only passions without reason.... But having both, he cannot be without strife.... Thus he is always divided against, and opposed to himself. (*Pensee*, 412: 130). On the Passions/Reason conflict, and the “correspondences” between the human “microcosm” and the “body politic” in Elizabethan literature see Tillyard 1961: 75–79; 94–99.

<sup>4</sup> The reformation of language — a key theme in 16th and 17th-century philosophy, from Bacon to Locke — was a major concern of Joseph Glanvil, who in his *Vanity of Dogmatizing*, after proclaiming his adherence to the Cartesian world view, advocates a language fit to describe clear and distinct entities. (Glanvil 1970: xxvi–xxx). As S. Medcalf sums it up, in his introduction to Glanvil’s work, a language fit to describe such world will bear broad similarities to mathematics, will have words of great generality and clarity; will present a picture of the universe according to its logical structure; will distinguish sharply between mind and matter, and between subjective and objective, and “will avoid metaphor as a way of knowing and describing, for metaphor depends on the assumption that the universe does not consist of wholly distinct entities and cannot therefore be fully described in positive distinct terms...” (ibid.: xxx).

set by the sun, the seasonal cycles, and the body itself, as it was constituted in pre-industrial society.

Marx as well sees the alienation from the body as a distinguishing trait of the capitalist work-relation. By transforming labor into a commodity, capitalism causes the workers to submit their activity to an external order with which they cannot identify. Thus, the labor process becomes a ground of self-estrangement, self-mortification and the worker "only feels himself outside his work, and in his work feels outside himself. He is at home when he is not working and when he is working is not at home" (Marx 1961: 72). Furthermore, with the development of a capitalist economy, the worker becomes (though only formally) the "free owner" of "his" labor, which (unlike the slave) he can place at the disposal of the buyer for a limited period of time. This implies that "[h]e must constantly look upon his labour-power" (his energies, his faculties) "as his own property, his own commodity" (Marx 1906, Vol. I: 186)<sup>5</sup>. This too leads to a sense of dissociation from the body that becomes objectified and reduced to a partial element with which the person ceases to be immediately identified.

Marx's account of alienation, however, cannot be applied to what euphemistically is called the "transition to capitalism." For the image of a worker freely alienating his labor, or confronting his body as capital to be disposed of to the highest bidder, refers to a working class already molded by the capitalist work-discipline. But only in the second half of the 19th century can we glimpse that type of worker -temperate, prudent, responsible, proud to possess a watch (Thompson 1964), and capable of looking upon the conditions of the capitalist mode of production as "self-evident laws of nature" (Marx 1906, Vol. I: 809)- that personifies the capitalist utopia.

The situation was radically different in the period of primitive accumulation when the emerging bourgeoisie discovered that the "liberation of labor power" — that is, the expropriation of the peasantry from the common lands — was not sufficient to force the dispossessed proletarians to accept wage labor. Unlike Milton's Adam, who, upon being expelled from the Garden of Eden, cheerfully set forth at the prospect of a life dedicated to work<sup>6</sup>, the expropriated peasants and artisans did not peacefully agree to work for a wage. More often they became beggars, vagabonds or criminals. A long process would be required to produce a new work-discipline. In the 16th and 17th centuries, the hatred for wage labor was so intense that many proletarians preferred to risk the gallows, rather than submitting to the new conditions of work (Hill 1975: 219-239)<sup>7</sup>.

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<sup>5</sup> Marx does not distinguish between male and female workers in his discussion of the "liberation of labour power," and throughout his works he subsumes women under the universalizing male signifier. There is, however, a reason for maintaining the masculine in the description of this process. While "freed" from the commons, women were not channeled onto the path of the wage labor market.

<sup>6</sup> "With labour I must earn/ My bread; what harm? Idleness had been worse;/My labour will sustain me" (*Paradise Lost*, verses 1054–1056, p.579) is Adam's answer to Eve's fears at the prospect of leaving the blessed garden.

<sup>7</sup> As Christopher Hill points out, until the 15th century, wage labor could have appeared as a conquered freedom, because people still had access to the commons and had land of their own, thus they were not exclusively dependent on a wage. But, by the 16th century, those who worked for a wage had been expropriated and had no alternative; moreover, the employers claimed that wages were only

This was the first capitalist crisis, one far more serious than all the commercial crises that were to threaten the foundations of the new economic system in the first phase of its development<sup>8</sup>. As is well-known, the response of the bourgeoisie was the institution of a true regime of terror, implemented through the intensification of penalties -particularly those punishing the crimes against property- the introduction of “bloody laws” against vagabonds, intended to bind the proletariat to work, as once the serfs had been bound to the land, and the multiplication of executions. In England alone 72,000 people were hung by Henry the VIII in whose days 300 to 400 "rogues" were "devoured by the gallows in one place or another (Hoskins 1977: 9). And the massacred continued into the late 16th century when, in Devon alone, in 1598, seventy-four people were hung in one year (ibid.).

But the violence of the ruling class was not confined to the repression of transgressions. It also aimed at a radical transformation of the person, tending to eradicate in the proletariat any form of behaviour not conducive to the imposition of a more strict work-discipline. It is in the course of this vast process of social engineering that a new concept of the body and a new policy toward it began to take shape. Their novelty was that the body was attacked as the source of all evils, and yet was studied with the same passion that, in the same years, animated the investigation of celestial motions.

Why was the body so central in capital's politics? One is tempted to answer that this obsession with the body reflects the fear that the proletariat inspired in the ruling class.<sup>9</sup> It was the fear felt by the bourgeois or the nobleman alike who, wherever they went, in the streets or their travels, were besieged by a threatening crowd, begging them or preparing to rob them. It was also the fear felt by those who presided over the life of the state whose consolidation was continuously undermined (but also determined) by the threat of riots and social disorders.

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complementary, and therefore kept them at their lowest possible level. Thus, working for a wage meant to fall to the bottom of the social ladder, and people struggled desperately to avoid this lot (Hill, 1975: 220–222). Still in the 17th century wage labor was considered a form of slavery, so much so that the Levelers excluded wage workers from the franchise, as they did not consider them free men (Macpherson 1962: 107–159).

<sup>8</sup> When in 1622 Thomas Mun was asked by James I to investigate the causes of the economic crisis that had struck the country, he concluded his report blaming the problems of the nation on the idleness of the English workers. He referred in particular to “the general leprosy of our piping, potting, feasting, factions and misspending of our time in idleness and pleasure”, which in his view placed England at a disadvantage in its commercial competition with the industrious Dutch (Hill, 1975: 125).

<sup>9</sup> The degree of social discipline expected from the lower classes (the “base,” “meaner sorts,” in the jargon of the time) can be measured by this tale narrated in *Social England Illustrated*. In 1580, Francis Hitchcock, in a pamphlet titled “New Year's Gift to England” forwarded the proposal to draft the poor of the country into the Navy, arguing that: “the poorer sort of people are...apt to assist rebellion or to join with whomsoever dare to invade this noble island...then they are meet guides to bring soldiers or men of war to the rich men's wealth. For they can point with their finger ‘there it is’, ‘yonder it is’ and ‘He hath it’, and so procure martyrdom with murder to many wealthy persons for their wealth...”. Hitchcock's proposal, however, was defeated; it was objected that if the poor of England were drafted into the navy they would steal the ships or become pirates. (*Social England Illustrated*: 85–86).

Yet, there was more. We must not forget, in fact, that the beggarly and riotous proletariat, who forced the rich to travel in a carriage to escape its assaults or go to bed with two pistols under the pillow, was the same who increasingly appeared as the source of all wealth. It was the same of whom the mercantilists, the first economists of capitalist society, never tired of repeating (though not without second thoughts) that “the more the better,” often deploring that so many bodies were wasted on the gallows<sup>10</sup>.

Many decades would pass before the value of labor entered the pantheon of economic theory. But that work (“industry”), rather than land or any other “natural wealth,” is the primary source of accumulation was a truth well understood at a time when the low level of technological development made human beings the most important productive resource. As Thomas Mun (the son of a London merchant and spokesman for the mercantilist position) put it:

..we know that our own natural wares do not yield us so much profit as our industry...For Iron in the Mines is of no great worth, when it is compared with the employment and advantage it yields being digged, tried and transported..... cast into Ordnance, Muskets....wrought into Anchors, bolts, spikes, nails and the like for the use of Shipt, Houses, Carts, Coaches, Ploughs, and other instruments for Tillage (Abbott 1946: 2).

Even Prospero insists on this crucial economic fact in a little speech on the value of labor, which he delivers to Miranda, after she manifests her utter disgust with Caliban:

But, as ‘tis  
We cannot miss him. He does make our fire  
Fetch in our wood, and serves in office  
That profit us (*Tempest*, Act I, Scene 2).

The body, then, enters the center of social policies because it appears not only as a beast inert to the stimuli of work, but also as the container of labor power, a means of production, the primary work-machine. This is why in the strategies adopted towards it, we find so much violence but also so much interest that the study of its motions and properties constitutes the starting point for most of the theoretical speculations of the time, whether they aimed (with Descartes) to assert the immortality of the soul, or to investigate (with Hobbes) the premises of social governability.

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<sup>10</sup> Eli. F. Heckscher writes that “In his most important theoretical work *A Treatise of Taxes and Contributions* (1662) [Sir William Petty] suggested the substitution of compulsory labour for all penalties, ‘which will increase labour and public wealth’”. “Why [he inquired] should not insolvent Thieves be rather punished with slavery than death? So as being slaves they may be forced to as much labour, and as cheap fare, as nature will endure, and thereby become as two men added to the Commonwealth, and not as one taken away from it.” (Heckscher 1962, II: 297). In France, Colbert too exhorted the Court of Justice to condemn as many convicts as possible to the galleys in order to “maintain this corps which is necessary to the state” (ibid.: 298–299).

Indeed, one of the central concerns of Mechanical Philosophy is *the mechanics of the body*, whose constitutive elements, from the circulation of the blood to the dynamics of speech, from the effects of sensations to voluntary and involuntary motions, are taken apart and classified in all their components and possibilities. Descartes' *Treatise of Man* (published in 1664)<sup>11</sup> is a true anatomical handbook, though the anatomy it performs is as much psychological as physical, a basic task of his enterprise being to institute an ontological divide between a purely mental and a purely physical domain. Every manner, attitude, and sensation is thus defined; their limits are marked, their possibilities weighed with such a thoroughness that one has the impression that the "book of human nature" has been opened for the first time or, more likely, that a new land has been discovered and the conquistadores are setting out to chart its paths, compile the list of its natural resources, assess its advantages and disadvantages.

In this, Hobbes and Descartes are representatives of their time. The care they display in exploring the details of corporeal and psychological reality reappears in the Puritan analysis of *inclinations* and individual *talents*<sup>12</sup> which was the beginning of a bourgeois psychology, quite explicitly studying, in this case, all human faculties from the viewpoint of their potential for work and contribution to discipline. A further sign of a new curiosity about the body and "of a change in manners and customs from former times whereby the body can be opened" (in the words of a 17th-century physician) is the contemporary development of *anatomy* as a scientific discipline, following its long relegation to the intellectual underground throughout the Middle Ages (Wightman 1972: 90–92; Galzigna 1978). But while the body emerges as the main protagonist in the philosophical and medical scenes, a striking feature of these investigations is the degraded conception they formed of it. The anatomy theatre<sup>13</sup> discloses to the public eye a disenchanting, desecrated body which only in principle can be conceived as the site of

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<sup>11</sup> The *Treatise on Man (Traite de l'Homme)*, which was to be published twelve years after Descartes' death as *L'Homme de Rene Descartes* (1664), opens Descartes' "mature period." Here, applying Galileo's physics to an investigation of the attributes of the body, Descartes attempted to explain all physiological functions as matter in motion. "I desire you to consider" (Descartes wrote at the end of the *Treatise*) "...that all the functions that I have attributed to this machine...follow naturally...from the disposition of the organs —no more no less than do the movements of a clock or other automaton, from the arrangement of its counterweights and wheels". (*Treatise*: 113).

<sup>12</sup> It was a Puritan rule that God has given "man" special gifts fitting him for a particular Calling; hence the need for a meticulous self-examination to resolve the Calling for which we have been designed. (Morgan 1966: 72–73; Weber 1958: 47ff).

<sup>13</sup> As Giovanna Ferrari (1987) has shown, one of the main innovations that were introduced by the study of anatomy in 16th-century Europe was the "anatomy theater," where dissection was organized as a public ceremony, subject to regulations similar to those that governed theatrical performances. "Both in Italy and abroad, public anatomy lessons had developed in modern times into ritualized ceremonies that were held in places specially set aside for them. Their similarity to theatrical performances is immediately apparent if one bears in mind certain of their features: the division of the lessons into different phases...the institution of a paid entrance ticket and the performance of music to entertain the audience, the rules introduced to regulate the behaviour of those attending and the care taken over the 'production'. W.S. Heckscher even argues that many general theater techniques were originally designed with the performance of public anatomy lessons in mind" (Ferrari 1987: 82–83).

the soul, but actually is treated as a separate reality (Galzigna 1978: 163–164).<sup>14</sup> To the eye of the anatomist the body is a factory, as shown by the title that Andreas Vesalius gave to his epochal work on the “dissecting industry”: *De humani corporis fabrica* (1543). In Mechanical Philosophy, not only is the body described by analogy with the *machine*, often with emphasis on its *inertia*. The body is conceived as brute matter, wholly divorced from any rational qualities, that does not know, does not want, does not feel. The body is a pure “collection of members,” Descartes claims (Haldane I: 152), echoed by Nicholas Malebranche who, in the *Dialogues on Metaphysics and on Religion* (1688), raises the crucial question “Can a body think?” to promptly answer, “No, beyond a doubt, for all the modifications of such an extension consist only in certain relations of distance; and it is obvious that such relations are not perceptions, reasonings, pleasures, desires, feelings, in a word, thoughts” (Popkin 1966: 280). For Hobbes, as well, the body is a conglomerate of mechanical motions that, lacking autonomous power, operate on the basis of an external causation, in a play of attractions and aversions where everything is regulated like in an automaton (*Leviathan* Part I, Chapter VI).

It is true, however, of Mechanical Philosophy what Foucault maintains with regard to the 17th and 18th-century social disciplines (Foucault 1977: 137). Here too we find a different perspective from that of medieval asceticism, where the degradation of the body had a purely negative function aimed at establishing the temporary and illusory nature of earthly pleasures and thus the necessity of renouncing the body.

In the perspective of Mechanical Philosophy, we perceive a new bourgeois spirit that calculates, classifies, makes distinctions, and degrades the body only in order to rationalize its faculties, aiming not just at intensifying its subjection but at maximizing its social utility (Foucault 1977: 137–138). Far from renouncing the body, mechanical theorists seek to conceptualize it in a way that makes its operations intelligible and controllable. Thus the sense of pride (rather than commiseration) with which Descartes insists that “this machine” (as he persistently calls the body in the *Treatise of Man*) is just an automaton, and its death is no more to be mourned than the breaking of a tool<sup>15</sup>.

Certainly, neither Hobbes nor Descartes spent many words on economic matters, and it would be absurd to read into their philosophies the everyday concerns of the English or Dutch merchants. Yet, we cannot fail to see the important contribution which their speculations on human nature gave to the emerging capitalist science of work. To pose the body as mechanical matter, void of any intrinsic teleology -the “occult virtues” attributed to it by both Natural Magic and the popular superstitions of the time- was to

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<sup>14</sup> According to Mario Galzigna, the epistemological revolution operated by anatomy in the 16th century is the birthplace of the mechanistic paradigm. It is the anatomical *coupure* that breaks the bond between microcosm and macrocosm, and posits the body both as a separate reality and as a place of production, in Vesalius words a factory (*fabrica*).

<sup>15</sup> Also in *The Passions of the Soul* (Article VI), Descartes minimizes “the difference that exists between a living body and a dead body”: “..we may judge that the body of a living man differs from that of a dead man just as does a watch or other automaton (i.e. a machine that moves of itself), when it is wound up and contains in itself the corporeal principle of those movements...from the same watch or other machine when it is broken and when the principle of its movement ceases to act.

make intelligible the possibility of subordinating it to a work process that increasingly relied on uniform and predictable forms of behavior.

Once its devices were deconstructed and it was itself reduced to a device, the body could be opened to an infinite manipulation of its powers and possibilities. One could investigate the vices and limits of imagination, the virtues of habit, the uses of fear, how certain passions can be avoided or neutralized, and how they can be more rationally utilized. In this sense, Mechanical Philosophy contributed to increasing the ruling class' control over the natural world, control over human nature being the first, most indispensable step. Just as *nature*, reduced to a "Great Machine," could be conquered and (with Bacon) "penetrated in all her secrets," likewise the *body*, emptied of its occult forces, could be "caught in a system of subjection," whereby its behavior could be calculated, organized, technically thought and invested of power relations" (Foucault 1977: 26).

In Descartes, body and nature are identified, for both are made of the same particles and act in obedience to uniform physical laws placed in motion by God's will. Thus, not only is the Cartesian body pauperized, and expropriated from any magical virtue; in the great ontological divide which Descartes institutes between the essence of humanity and its accidental conditions, the body is divorced from the person, it is literally dehumanized. "I am not this body," Descartes insists throughout the *Meditations*. And, indeed, in his philosophy the body joins a continuum of clock-like matter that the unfettered will can now contemplate as the object of its domination.

As we will see, Descartes and Hobbes express two different projects with respect to corporeality. In Descartes, the reduction of the body to mechanical matter allows for the development of mechanisms of self-management that make the body the subject of the will. In Hobbes, by contrast, the mechanization of the body justifies the total submission of the individual to the power of the state. In both, however, the outcome is a redefinition of bodily attributes that makes the body, ideally, at least, suited for the regularity and automatism demanded by the capitalist work-discipline.<sup>16</sup> I emphasize "ideally" because, in the years in which Descartes and Hobbes were writing their treatises, the ruling class had to confront a corporeality that was far different from that appearing in their prefigurations.

It is difficult, in fact, to reconcile the insubordinate bodies that haunt the social literature of the "Iron Century" with the clock-like images by which the body is represented in Descartes' and Hobbes' works. Yet, though seemingly removed from the daily affairs of the class struggle, it is in the speculations of the two philosophers that we find first

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<sup>16</sup> Particularly important in this context was the attack on the "imagination" (*vis imaginativa*) which in 16th and 17th-century Natural Magic was considered a powerful force by which the magician could affect the surrounding world and bring about "health or sickness, not only in its proper body, but also in other bodies." (Easlea 1980: 94ff). Hobbes devoted a chapter of the *Leviathan* to demonstrate that the imagination is only a "decaying sense," no different from memory, only gradually weakened by the removal of the objects of our perception (Part I, Chapter 2).



conceptualized the development of the body into a work-machine, one of the main tasks of primitive accumulation.

When, for example, Hobbes declares that “the heart (is) but a spring...and the joints so many wheels,” we perceive in his words a bourgeois spirit, whereby not only is work the *condition and motive of existence of the body*, but the need is felt to transform all bodily powers into work powers.

This is a clue to understanding why so much of the philosophical and religious speculation of the 16th and 17th centuries consists of a true *vivisection of the human body*, whereby it is decided which of its properties can live and which, instead, must die. It is a *social alchemy* that, however, does not turn metals into gold, but bodily powers into work-powers. For the same relation that capitalism introduces between land and work also begins to command the relation between the body and labor. While labor is seen as a dynamic force infinitely capable of development, the body is fixed as inert, sterile matter that only the will can move, in a condition similar to that which Newton’s physics established between mass and motion, where the mass tends to inertia unless a force is applied to it. Like the land, the body had to be cultivated and first of all broken up, so that it could relinquish its hidden treasures. For the body is the *condition of the existence of labor power*, but it is also its limit, as the main element of resistance to its expenditure. It was not sufficient, then, to decide that *in itself* the body had no value. The body had to die so that labor power could live.

What died was the concept of the body as a receptacle of magical powers that had prevailed in the medieval world. In reality, it was destroyed. For in the background of the new philosophy we find a vast initiative by the state, that branded what the philosophers classified as “irrational” as a true form of crime. This state intervention is the necessary “subtext” of Mechanical Philosophy. For “knowledge” can only become “power” if it can enforce its prescriptions (contrary to Foucault’s main methodological claim). This means that the mechanical body, the body-machine, could not have become a model of social behavior without the intervention of the state, that destroyed a vast range of precapitalist beliefs, practices, and social subjects whose existence contradicted the regularization of corporeal behavior promised by Mechanical Philosophy. This is why, at the peak of the “Age of Reason,” the age of scepticism and methodical doubt, we have the most ferocious attack on magic ever recorded in history, an attack that was well supported by many who subscribed to the new doctrine.

The dimensions of this attack are apparent in the social legislation that by the middle of the 16th century was introduced in England and France. Games were forbidden, particularly games of chance that, besides being useless, undermined the sense of responsibility and the discipline of work. Taverns were closed and so were public baths. Nakedness was penalized together with many other “unproductive” forms of sexuality and sociality. It was forbidden to drink, swear, curse (Wright 1960: 80–83; Thomas 1971; Van Ussel 1971: 25–92; Riley 1973: 19ff; Underdown 1985: 7-72).

It is in this context that we must also read the attack against witchcraft and against that magical view of the world which, despite the efforts of the Church, had continued to prevail on a popular level through the Middle Ages. At the basis of magic was an animistic conception of nature that did not admit to any separation between matter and spirit, and thus imagined the cosmos as a *living organism*, populated by occult forces, where every element was in “sympathetic” relation with the rest. In this perspective where nature was viewed as a universe of signs and signatures, marking invisible affinities that had to be deciphered (Foucault 1973: 26–27), every element — herbs, plants, metals, and most of all the human body — hid virtues and powers peculiar to it. Thus, a variety of practices were designed to appropriate the secrets of nature and bend its powers to the human will. From palmistry to divination, from the use of charms to healing by sympathy, magic opened a vast number of possibilities. There was magic designed to win card games, to play unknown instruments, to become invisible, to win somebody’s love, to gain immunity in war, to make children sleep (Thomas 1971).

To eradicate these practices was a necessary condition of the capitalist rationalization of work, since magic appeared as an instrument *to obtain what one wanted without work*, that is, as refusal of work in action. “Magic kills industry,” lamented Francis Bacon, admitting that nothing repelled him so much as the assumption that one could obtain results with a few idle expedients, rather than with the sweat of one’s brow (Bacon *Works III*: 381).

Magic, moreover, rested upon a qualitative conception of space and time that precluded a regularization of the labor process. For how could the new entrepreneurs impose regular work patterns on a proletariat anchored in the belief that there are lucky and unlucky days, that is, days in which one can travel and others in which one should not move from home, days in which to marry and others in which every enterprise should be cautiously avoided? Equally incompatible with the capitalist work-discipline was a conception of the cosmos that attributed special powers to the individual: the magnetic look, the power to make oneself invisible, to leave one’s body, to chain the will of others by magical incantations.

It would not be fruitful to investigate whether these powers were real or imaginary. It can be said that all precapitalist societies have believed in them and, in recent times, we have witnessed a reevaluation of practices that, at the time we refer to, would have been condemned as witchcraft. Let us mention, for instance, the growing interest in parapsychology and the bio-feedback practices that are increasingly applied even by the official medicine. The revival of magical beliefs is possible today because it does not represent any longer a social threat. For the mechanization of the body is so constitutive of the individual that, at least in the industrialized countries, giving space to the belief in occult forces does not jeopardize the regularity of social behavior. Astrology too can be allowed to return, with the certainty that the even most devoted consumer of astral charts will automatically consult the watch before going to work.

This, however, was not an option for the 17th-century ruling class who, in this initial and experimental phase of capitalist development, did not possess the social control necessary

to neutralize the practice of magic, nor could it functionally integrate it into the organization of social life. From their viewpoint it hardly mattered whether the powers which people claimed to have, or aspired to have, were real or not, for the very existence of magical beliefs was a source of social insubordination.

Take, for example, the widespread belief in the possibility of finding hidden treasures by the help of magical charms (Thomas 1971: 234–237). This was certainly an impediment to the institution of a rigorous and spontaneously accepted work-discipline. Equally threatening was the use that the lower classes made of *prophecies*, which, particularly during the English Civil War (as already in the Middle Ages) served to formulate a program of struggle (Elton 1972: 142ff). Prophecies, in fact, are not just the expression of a fatalistic resignation to fate. Historically they have been a means by which the "poor" have externalized and given legitimacy to their desires and plans and spurred action. Hobbes recognized it when he warned that, "There is nothing that....so well directs men in their deliberations as the foresight of the sequel of their actions; prophecy being many times the cause of the events foretold" (Hobbes, *Works VI*: 399).

But regardless of the dangers magic posed, the bourgeoisie had to combat its power also because it undermined the principle of individual responsibility, as magic placed the determinants of social action in the realm of the stars, out of their reach and control. Thus, in the rationalization of space and time that characterized the philosophical speculation of the 16th and 17th centuries, prophecy was replaced with the *calculation of probabilities* whose advantage, from a capitalist viewpoint, is that here the future can be anticipated only insofar as the regularity and immutability of the system is assumed; that is, only insofar as it is assumed that the future will be like the past, and no major change, nor revolution will upset the coordinates of individual decision. Similarly, the bourgeoisie had to combat the assumption that it is possible to be in two places at the same time, for the *fixation of the body in space and time*, that is, the *individual's spatio-temporal identification*, is an essential condition of the regularity of the work-process.<sup>17</sup>

The incompatibility of magic with the capitalist work-discipline and the requirement of social control -as defined in the context of the political challenges of the 16th and 17th centuries- is one of the reasons why a campaign of terror was launched against it by the state -a terror applauded without reservations by many who are presently considered among the fathers of scientific rationalism: Jean Bodin, Mersenne, the mechanical philosopher and member of the Royal Society Richard Boyle, and Newton's teacher, Isaac Barrow.<sup>18</sup> Even the materialist Hobbes, while keeping his distance, gave his

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<sup>17</sup> Writes Hobbes, "No man therefore can conceive any thing, but he must conceive it in some place..not that anything is all in this place and all in another place at the same time; nor that two or more things can be in one and the same place at once." (*Leviathan*:72)

<sup>18</sup> Among the supporters of the witch-hunt was also Sir Thomas Browne, a doctor and reputedly an early defender of "scientific freedom", whose work in the eyes of the contemporaries "possessed a dangerous savour of skepticism" (Gosse 1905: 25). Not only did Thomas Browne believe in witchcraft, but he contributed personally to the death of two "witches" who, but for his intervention, would have been saved from the flames, so absurd were the charges against them (Gosse 1905: 147–149). For a detailed analysis of this trial see Gilbert Geis and Ivan Bunn (1997).

approval. “As for witches,” he wrote, “I think not that their witchcraft is any real power; but yet that they are justly punished, for the false belief they have that they can do such mischief, joined with their purpose to do it if they can” (*Leviathan*: 67). He added that if these superstitions were eliminated, “men would be much more fitted than they are for civil obedience” (*ibid.*).

Hobbes was well advised. The stakes on which witches and other practitioners of magic died, and the chambers in which their torture were executed were a laboratory in which much social discipline was sedimented, and much knowledge about the body was gained. It was here that those irrationalities were eliminated that stood in the way of the transformation of the individual and social body into a set of predictable and controllable mechanisms. And it was here again that the scientific use of torture was born, for (in Nietzsche’s terms) blood and torture were necessary to “breed an animal” capable of regular, homogeneous, and uniform behavior, indelibly marked with the memory of the new rules (Nietzsche 1965: 189–190).

A significant element in this context was the condemnation as *maleficium* of abortion and contraception, which consigned the female body, her *uterus*, reduced to a machine for the reproduction of labor, in the hands of the state and the medical profession. I will return later to this point, in the chapter on the witch-hunt, where I argue that the persecution of the witches was the climax of the state intervention against the proletarian body in the modern era.

Here, instead, let us stress that despite the violence deployed by the state, the disciplining of the proletariat proceeded slowly throughout the 17th century and into the 18th century in the face of a strong resistance that not even the fear of execution could overcome. An emblematic example of this resistance is analyzed by Peter Linebaugh in “The Tyburn Riots Against the Surgeons.” Linebaugh reports that in early 18th-century London, at the time of an execution, a battle was fought by the friends and relatives of the condemned to prevent the assistants of the surgeons from seizing the corpses and then use it for their anatomical studies (Linebaugh 1775). The battle was fierce because the fear of being dissected was no less than the fear of death. Dissection eliminate the possibility that the condemned might revive after a poorly executed hanging, as it often occurred in 18th-century England (*ibid.*: 102–104). A magical conception of the body was also rooted among the people according to which the body continued to live after death, and by death was enriched with new powers. It was believed that the dead possessed the power to “come back gain” and exact their last revenge upon the living. It was also believed that a corpse had healing virtues, so that crowds of sick people gathered around the gallows, expecting from the limbs of the dead effects as miraculous as those attributed to the touch of the king (*ibid.*: 109–110). Dissection thus appeared as a further infamy, a second death, and the condemned spent their last days making sure that their body should not be abandoned to the hands of the surgeons. This battle, that significantly occurred at the feet of the gallows, demonstrates both the violence that presided over the scientific rationalization of the world, and the clashing of two opposite concepts of the body and two opposite investments in it. On one side, we have a concept of the body that sees it as endowed with powers even after its death, so that the corpse does not inspire any

repulsion, and is not treated as something rotten and irreducibly alien. On the other side, there is a concept of the body that sees it as dead even when it is still alive, insofar as it views it as a mechanical device to be taken apart just like a machine. “At the gallows, standing at the conjunction of the Tyburn and Edgar roads,” Peter Linebaugh writes, “we find that the history of the London poor and the history of English science intersect.” This was not a coincidence; nor was it a coincidence that the progress of anatomy depended on the ability of the surgeons to snatch the bodies of the hanged at Tyburn.<sup>19</sup> For there is no doubt that the course of scientific rationalization was intimately connected to the attempt by the state to impose its control over an unwilling work-force.

This process was even more important, as a determinant of new attitudes towards the body, than the development of technology. As David Dickson argued, connecting the new scientific worldview to the increasing mechanization of production can only hold as a metaphor (Dickson 1979: 24). Certainly, the clock and the automated devices that so much intrigued Descartes and his contemporaries (e.g. hydraulically moved statues), provided models for the new science, and for the speculations of Natural Philosophy on the movements of the body. It is also true that starting from the 17th century, the anatomical analogies were drawn from the workshops of the manufacturers: the arms are viewed as levers, the heart as a pump, the lungs as bellows, the eyes as lenses, the fist as a hammer (Mumford 1962: 32). But these metaphors reflect not the influence of technology *per se*, but the fact that the *machine was becoming the model of social behavior*. The inspirational force of the need for social control is evident even in the field of astronomy. A classic example is that of Edmond Halley (the secretary of the Royal Society), who, in concomitance with the appearance, in 1695, of the comet later named after him, organized clubs all over England in order to demonstrate the predictability of natural phenomena, and thus dispel the popular belief that comets announced social disorders. That the paths of scientific rationalization intersected with the disciplining of the social body is even more evident if from astronomy we pass to the social sciences. For the development of the latter was premised on the homogenization of social behavior and the construction of a prototype of individual to whom, on an average, all would be expected to conform. In Marx’s words, this is an abstract individual, constructed in a uniform, undifferentiated way, as a social average, and subject to a radical decharacterization, so that all of its faculties can be grasped only in their most standardized aspects. The construction of this new individual was the basis for the development of what W. Petty would later call (using Hobbes’ terminology) *Political Arithmetics*, this being a new science that was to study every form of social behavior in terms of *Numbers, Weights, and Measures*. Petty’s project was realized with the development of both *statistics* and *demography* (Wilson, 1966; Cullen, 1975) which perform on the social body the same operations that anatomy performs on the individual body, as both dissect the population and study its movements –from natality to mortality

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<sup>19</sup> In every country where anatomy flourished, in 16th-century Europe, statutes were passed by the authorities allowing for the use of the bodies of those executed. In England “the College of Physicians entered the anatomical field in 1565 when Elizabeth I granted them the right of claiming the bodies of dissected felons” (O’Malley et al 1964). On the collaboration between the authorities and the anatomist in 16th and 17th-century Bologna, see Ferrari (pp. 59, 60, 64, 87,88) who points out that not only those executed were set aside for the anatomists, but also the “meanest” of those who died at the hospital. In one case, a sentence to life was commuted into a death sentence to satisfy the demand of the scholars.

rates, from generational to occupational structures— in their most massified and regular aspects. Also from the point of view of the abstraction process that the individual underwent in the transition to capitalism, we can see, then, that the development of the “human machine” was the main technological leap, the main step in the development of the productive forces that took place in the period of primitive accumulation. *We see, in other words, that the human body and not the steam engine, and not even the clock, was the first machine developed by capitalism.*

But if the body is a machine, the problem that immediately emerges is how to make it work. Two different models of body-government are derived from the theories of Mechanical Philosophy. On one side we have the Cartesian model that (starting from the assumption of a purely mechanical body) postulates the possibility of developing in the individual mechanisms of self-discipline, self-management, and self-regulation allowing for a voluntary work relation and a government based on consent. On the other there is the Hobbesian model, that, denying the possibility of a body-free Reason, externalizes the functions of command, to consign them to the absolute authority of the state.

The development of a self-management theory, starting from the mechanization of the body, is the focus of the philosophy of Descartes, who (let's remember it), completed his intellectual formation not in the France of monarchical absolutism, but in the bourgeois Holland, so congenial to his spirit that he elected it as his abode. Descartes' doctrines have a double aim: to deny that human behavior can be influenced by external factors (such as the stars, or celestial intelligences), and to free the soul from any bodily conditioning, thus making it capable of exercising an unlimited sovereignty over the body itself.

Descartes believed that he could accomplish both tasks by demonstrating the mechanical nature of animal behavior. Nothing, he claimed in *Le Monde*, causes so many errors as the belief that animals have a soul like ours. Thus, in preparation for his *Treatise of Man*, he devoted many months to studying the anatomy of animal organs; every morning he went to the butcher to assist at the quartering of the beasts<sup>20</sup>, and he even performed many vivisections, perhaps comforted by his belief that, being mere brutes “destitute of

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<sup>20</sup> According to Descartes' first biographer Monsieur Adrien Baillet, in preparation for his *Treatise of Man* in 1629, Descartes, while in Amsterdam, daily visited the slaughterhouses of the town, and performed dissections on various parts of animals:

“...he set about the execution of his design by studying anatomy, to which he devoted the whole of the winter that he spent in Amsterdam. To Father Mersenne he testified that his eagerness for knowledge of this subject had made him visit, almost daily, a butcher's, to witness the slaughter; and that he had caused to be brought thence to his dwelling whichever of the animals' organs he desired to dissect at greater leisure. He often did the same thing in other places where he stayed after that, finding nothing personally shameful, or unworthy his position, in a practice that was innocent in itself and that could produce quite useful results. Thus, he made fun of certain maleficent and envious person who ...had tried to make him out a criminal and had accused him of ‘going through the villages to see the pigs killed’,...he did not neglect to look at what Vesalius and the most experienced of other authors had written about anatomy. But he taught himself in a much surer way by personally dissecting animals of different species (Descartes 1972: XIII–XIV).

Reason,” the animals he dissected could not feel any pain (Rosenfield1968: 8).<sup>21</sup> To demonstrate the brutality of animals was essential for Descartes because he was convinced that here was the answer to his question concerning the location, the nature, and the extent of the power controlling human conduct.<sup>22</sup> He believed that in the dissected animal he would find the proof that the body is only capable of mechanical, and involuntary actions, that, consequently, it is not constitutive of the person, and that the human essence, therefore, resides in purely immaterial faculties. The human body too is an automaton for Descartes, but what differentiates “man” from the beast and confers upon “him” mastery over the surrounding world, is the presence of thought. Thus, the soul, which Descartes displaces from the cosmos and the sphere of corporeality, returns endowed with infinite powers under the guise of individual reason and will.

Placed in a soul-less world and in a body-machine, the Cartesian man, like Prospero, could then break his wand, being not only responsible for his actions, but seemingly the center of all powers. In being divorced from his body the rational self lost his solidarity with his corporeal reality and with nature. His solitude, however, was to be that of a king. For in the Cartesian model of the person, there is no egalitarian dualism between the thinking head and the body-machine, only a master-slave relation, since the primary task of the will is to govern the body and extend its domination over the natural world. What we see, then, in the Cartesian model of the person is the same centralization of the functions of command that, starting from the 17th century, increasingly characterized the

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<sup>21</sup> In a letter to Mersenne of 1633 he writes: “J’anatomize maintenant les tetes de divers animaux pour expliquer en quoi consistent l’imagination, la memoire..” (Cousin Vol.IV: 255). Also in a letter of January 20 he refers in detail to experiments of vivisection: “Après avoir ouverte la poitrine d’un lapin vivant....en sorte que le tron et le coeur de l’aorte se voyent facilement.....Poursuivant la dissection de cet animal vivant je lui coupe cette partie du coeur qu’on nomme sa pointe (ibid. Vol VII: 350). Finally, in June 1640, in response to Mersenne, who had asked him why animals feel pain if they have no soul, Descartes reassured him that they do not; for pain exists only with understanding, which is absent in brutes (Rosenfield1968: 8).

This argument effectively desensitized many of Descartes’ scientifically minded contemporaries to the pain inflicted on animals by vivisection. This is how Fontaine described the atmosphere created at Port Royal by the belief in animal automatism: “There was hardly a *solitaire*, who didn’t talk of automata...They administered beatings to dogs with perfect indifference...They said that animals were clocks; that the cries they emitted when struck were only the noise of a little spring which had been touched, but that the whole body was without feeling. They nailed poor animals on boards by their four paws to vivisect them and see the circulation of the blood which was a great subject of conversation”. (Rosenfield 1968: 54).

<sup>22</sup> Descartes’ belief in animal automatism represented a total inversion with respect to the conception of animals that had prevailed in the Middle Ages and until the 16th century, which viewed them as intelligent, responsible beings, with a particularly developed imagination and even the ability to speak. As E. Westermarck and, more recently, E. Cohen have shown, in several countries of Europe, animals were tried and at times publicly executed for crimes they had committed. They were assigned a lawyer and the entire procedure —trial, sentence, execution— was conducted with all the formal legalities. In 1565, the citizens of Arles, for example, asked for the expulsion of the grasshoppers from their town, and in a different case the worms that infested the parish were excommunicated. The last trial of an animal was held in France in 1845. Animals were also accepted in court as witnesses for the *compurgatio*. A man who had been condemned for murder appeared in court with his cat and his cock and in their presence swore that he was innocent and was released. (Westermarck1924: 254 ff.; Cohen 1986).

new form of the state. As the task of the state was to govern the social body, so the mind became sovereign in the new personality.

Descartes concedes that the supremacy of the mind over the body is not easily achieved, as Reason must confront its inner contradictions. Thus, in *The Passions of the Soul* (1650), he introduces us to the prospect of a constant battle between the lower and higher faculties of the soul which he describes in almost military terms, appealing to our need to be brave, and to gain the proper arms to resist the attacks of our passions. We must be prepared to suffer temporary defeats, for our will might not always be capable of changing or arresting its passions. It can, however, neutralize them by diverting its attention to some other thing, or it can restrain the movements to which they dispose the body. It can, in other words, prevent the *passions* from becoming *actions* (Descartes 1973, Vol.1: 354–355).

With the institution of a hierarchical relation between mind and body, Descartes developed the theoretical premises of the work-discipline required by the capitalist economy. For the mind's supremacy over the body implies that the will can (in principle) control the needs, reactions, reflexes of the body; it can impose a regular order on its vital functions, and force the body to work according to external specifications, independently of its desires.

Most important, the supremacy of the will allows for the interiorization of the mechanisms of power. The counterpart of the body-machine, in fact, is the development of Reason in its role as judge, inquisitor, manager, administrator. We find here the origins of bourgeois subjectivity as self-management, self-ownership, law, responsibility, with its corollaries of memory and identity. Here we also find the origin of that proliferation of “micro-powers” that Michel Foucault has described in his critique of the juridico-discursive model of Power. What the Cartesian model shows, however, is that Power can be decentered and diffused through the social body only to the extent that it is recentered in the person, which is thus reconstituted as a micro-state. This implies that in being diffused, Power does not lose its vector—that is, its content and *raison d’être*—but simply acquire the collaboration of the Self in its promotion.

Consider, then, in this context, the thesis proposed by Brian Easlea according to which the main benefit that Cartesian dualism offered to the new capitalist class was the Christian defense of the immortality of the soul, and the possibility of defeating the atheism implicit in Natural Magic, which was loaded with subversive implications (Easlea: 132ff). Easlea argues, in support of this view, that the defense of religion was a central theme in Cartesianism, which, particularly in its English version, never forgot that “No Spirit, No God; No Bishop, No King” (ibid.: 202). Easlea's argument is attractive; yet it fails to answer a question that Easlea himself raises. Why was the hold of Cartesianism in Europe so strong that, even after Newtonian physics dispelled the belief in a natural world void of occult powers, and even after the advent of religious tolerance, Cartesianism continued to shape the dominant worldview? I suggest that the popularity of Cartesianism among the middle and upper class is directly related to the idea of *self-mastery* that it promotes. This program is as important, in my view, as the hegemonic



relation between humans and nature that is legitimized by Cartesian dualism. For the development of self-management (i.e. self-government and self-development) is an essential requirement in a socio-economic system where self-ownership becomes the fundamental social relation, and discipline no longer relies purely on external coercion. Through its theory of self-management Cartesian philosophy could *defeat but also recuperate* the active side of Natural Magic. For it replaced the unpredictable power of the magician (built on the subtle manipulation of astral influences and correspondences) with a power far more profitable--a power for which no soul had to be forfeited, generated only through the administration and domination of one's body and, by extension, the administration and domination of the bodies of other fellow beings. We cannot say, then, as Easlea does (repeating a criticism raised by Leibniz), that Cartesianism failed to translate its tenets into a set of practical regulations, that is, it failed to demonstrate to the philosophers, and above all to the merchants and manufacturers, how they would benefit from it in their attempt to control the matter of the world (ibid: 151).

If Cartesianism failed to give a technological translation of its precepts, it nonetheless provided precious information with regard to the development of "human technology." For its insights into the dynamics of self-control would lead to the construction of a new model of the person, wherein the individual would function at the same time as both master and slave. It is because it interpreted so well the needs of capitalist work-discipline, that Descartes' doctrine, by the end of the 17th century, had spread throughout Europe and, as mentioned, survived even the advent of vitalistic biology as well as the increasing obsolescence of the mechanistic paradigm.

The reasons for Descartes' triumph are clearest when we compare his account of the person with that of his English rival, Thomas Hobbes. Hobbes' biological monism rejects the postulate of an immaterial mind or soul that is the basis of Descartes' concept of the person, and with it the Cartesian assumption that the human Will can free itself from corporeal and instinctual determinism.<sup>23</sup> Thus, for Hobbes, human behavior is a conglomerate of reflex actions that follow precise natural laws, and compel the individual to incessantly strive for power and domination over others (*Leviathan*: 141ff). Thus the war of all against all (in a hypothetical state of nature), and the necessity for an absolute power guaranteeing, through fear and punishment, the survival of the individual in society.

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<sup>23</sup> It has been argued that Hobbes arch-mechanistic perspective actually conceded more powers and dynamism to the body than the Cartesian account. Hobbes rejects Descartes dualistic ontology, and in particular the notion of the mind as an immaterial, incorporeal substance. Consequently he views body and mind as a monistic continuum, and can explain the capacity for mental operations and the activity of living bodies as the application of physical and especially physiological principles. Hobbes, however, no less than Descartes, disempowers the human organism, as he denies self-motion, and explains bodily changes on the basis of action-reaction mechanisms. Sense perception, for instance, is for Hobbes the product of an action-reaction, due to the resistance opposed by the sense organ to the atomic impulses coming from the external object; imagination is a decaying sense. Reason too is but a computing machine. No less than in Descartes, in Hobbes too the operations of the body are understood in terms of a mechanical causality, and are object of the same universal legislation regulating the world of inanimate matter.

For the laws of nature, as justice, equity, modesty, mercy, and, in sum, doing to others as we would be done to, of themselves, without the terror of some power to cause them to be observed, are contrary to our natural passions, that carry us to partiality, pride, revenge and the like (ibid: 173).

As is well known, Hobbes' doctrine caused a scandal among his contemporaries, who considered it dangerous and subversive, so much so that, although he strongly desired it, Hobbes was never admitted to the Royal Society (Bowle: 163).

Against Hobbes, it was the Cartesian model that was to prevail, for it expressed the already active tendency to democratize the mechanisms of social discipline by attributing to the individual will that function of command which, in the Hobbesian model, is left solely in the hands of the state. As many critics of Hobbes maintained, the foundations of public discipline must be rooted in the hearts of men, for in the absence of an interior legislation men are inevitably led to revolution (Bowle1951: 97–98). “In Hobbes,” complained Henry Moore, “there is no freedom of will and consequently no remorse of conscience or reason, but only what pleases the one with the longest sword” (Easlea 1980: 159). More explicit was Alexander Ross, who observed that “it is the curb of conscience that restrains men from rebellion, there is no outward law or force more powerful...there is no judge so severe, no torturer so cruel as an accusing conscience” (Bowle 1951: 167).

As we can see, the critique of Hobbes' atheism and materialism was not motivated purely by religious concerns. The individual-machine, moved only by its appetites and aversions, was rejected not because it eliminated the concept of the human creature made in the image of God, but because it eliminated the possibility of a form of social control not depending wholly on the iron rule of the state. We must add that this deviation of Hobbes' philosophy from Cartesianism cannot be explained if we stress the feudal elements in Descartes' philosophy, and in particular its defense of the existence of God with all that this entailed, as a defense of the power of the state. The elimination of the religious element in Hobbes (i.e., the belief in the existence of incorporeal substances) is, in fact, a response to *the democratization implicit in the Cartesian model of self-mastery*, about which the adventures of the Puritan sects during the English Civil War had shown all the dangers. For the Puritan appeal to return the management of one's behavior to the individual conscience, and to make of one's conscience the ultimate judge of truth, had become radicalized into an anarchic refusal of established authority in the hands of the sectaries.<sup>24</sup> The example of the Diggers and Ranters, and of the scores of mechanic preachers who, in the name of the “light of conscience,” had opposed state legislation as well as private property, convinced Hobbes that the appeal to “Reason” was a

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<sup>24</sup> As he lamented in *Behemoth*:

“After the Bible was translated into English, every man, nay every boy and wench that could read English thought they spoke with God Almighty and understood what he said....the reverence and obedience due to the Reformed Church was cast off and every man became a judge of religion” (p. 190); many were “going forth of their own parishes and towns in working days leaving their calling” in order to hear mechanical preachers (p. 194).

dangerously double-edged weapon.<sup>25</sup> We can point out that the conflict between Cartesian “theism” and Hobbesian “materialism” was to be resolved in their reciprocal assimilation, in the sense that (as always in the history of capitalism) the decentralization of the mechanisms of command, through their location in the individual, was finally obtained only to the extent that a centralization occurred in the power of the state. To put this resolution in the terms in which the debate was posed in the course of the English Civil War: “neither the Diggers nor Absolutism,” but a well-calculated mixture of both, whereby the democratization of command would rest on the shoulders of a state always ready, like the Newtonian God, to reimpose order on the souls who proceeded too far in the ways of self-determination. The crux of the matter was lucidly expressed by Joseph Glanvil, a Cartesian member of the Royal Society who, in a polemic against Hobbes, argued that the crucial issue was the control of the mind over the body. This, however, did not simply imply the control of the ruling class (the mind *par excellence*) over the body-proletariat, but, equally important, the development of the capacity for self-control within the person.

As Foucault has demonstrated, the mechanization of the body did not simply involve the repression of desires, emotions, or forms of behavior that were to be eradicated. It also involved the development of new faculties in the individual that would appear as *other* with respect to the body, and become the agents of its transformation. In other words, the other side of alienation from the body was the development of individual *identity* conceived precisely as “otherness” from the body, and in perennial antagonism with it.

The emergence of this *alter ego*, and the determination of a historic conflict between mind and body, represent the act of birth of the individual in capitalist society. For it became a typical characteristic of the individual molded by the capitalist work-discipline to confront one’s body as an alien reality, to be assessed, developed as well as kept at bay, in order to obtain from it the desired results.

As we pointed out, among the “lower classes, the development of self-management as self-discipline remained, however, for a long time an object of speculation. How little self-discipline was expected from the “common people” can be judged from the fact that, right into the 18th century, 160 crimes in England were punished with death (Linebaugh 1992), and every year thousands of “common people” were transported to the colonies or condemned to the galleys. Moreover, when the populace appealed to reason, it was to voice anti-authoritarian demands, since self-mastery at the popular level meant the rejection of the established authority, rather than the interiorization of social rule (Hill c: 118ff).

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<sup>25</sup> Exemplary is Gerrard Winstanley’s “New Law of Righteousness” (1649), where the most notorious Digger asks: “Did the light of Reason make the earth for some men to ingrosse up into bags and barns, that other might be opprest with poverty? Did the light of Reason make this law, that if one man did not have such an abundance of the earth as to give to others he borrowed of; that he that did lend should imprison the other, and starve his body in a close room? Did the light of Reason make this law, that some part of mankinde should kil and hang another part of man-kinde, that would not walk in their steps? (Winstanley 1941: 197).

Indeed, through the 17th century, self-management remained a bourgeois prerogative. As Easlea points out, when the philosophers spoke of "man" as a rational being they made exclusive reference to a small elite made of white, upper class adult males. "The great multitude of men," wrote Henry Power, an English follower of Descartes, "resembles rather Descartes' automata, as they lack any reasoning power, and only as a metaphor can be called men" (Easlea1980: 140).<sup>26</sup>

The "better sorts" agreed that the proletariat was of a different race. In their eyes, made suspicious by fear, the proletariat appeared as a "great beast," a "many-headed monster," wild, vociferous, given to any excess (Hill d: 181ff). On an individual level as well, a ritual vocabulary identified the masses as purely instinctual beings. Thus, in the Elizabethan literature, the beggar is always "lusty," while "sturdy," "rude;" "hot-headed," "disorderly" are ever-recurrent terms in any discussion of the lower class.

In this process, not only did the body lose all naturalistic connotations, but a *body-function* began to emerge, in the sense that the body became a purely relational term, no longer signifying any specific reality, but identifying instead any impediment to the domination of Reason. This means that while the proletariat became a body, the body became the proletariat or, alternatively, the weak female (the "woman in us," as Hamlet was to say) or the wild African, being purely defined through its limiting function, that is through its "otherness" from Reason, and treated as an agent of internal subversion.

Yet, the struggle against this "great beast" was not solely directed against the "lower sort of people." It was also interiorized by the dominant classes in the battle the latter waged against its own "natural state." As we have seen, no less than Prospero, the bourgeoisie too had to recognize that "[t]his thing of darkness is mine," that is, that Caliban was part of itself (Brown1988; Tyllard 1961:34–35).

This awareness pervades the literary production of the 16th and 17th centuries. The very terminology that developed at this time is revealing. Even those who did not follow Descartes saw the body as a beast that had to be kept incessantly under control. Its instincts were compared to "subjects" to be "governed," the senses were seen as a prison for the reasoning soul.

O who shall, from this Dungeon, raise  
 A Soul enslav'd so many wayes?  
 With bolts of Bones, that fetter'd stands  
 In Feet; and manacled in Hands.  
 Here blinded with an Eye; and there  
 Deaf with the drumming of an Ear.  
 A Soul hung up, as t'were, in Chain

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<sup>26</sup> It is tempting to suggest that this suspicion concerning the humanity of the "lower classes" is the reason why, among the first critics of Cartesian mechanism, few objected to Descartes' mechanical view of the human body. As Rosenfield points out: "this is one of the strange things about the whole quarrel, none of the ardent defenders of the animal soul in this first period took up the cudgel to preserve the human body from the taint of mechanism" (Rosenfield1968: 25).

Of Nerves, and Arteries, and Veins  
(Hill 1964a: 345).

The conflict between appetites and reason was a key theme in Elizabethan literature (Tillyard 1961: 75), while among the Puritans the idea began to take hold that the “Antichrist” is in every man. Meanwhile, debates on education and on the “nature of man,” current among the “middle sort” centered around the body-mind conflict, posing the crucial question of whether human beings are voluntary or involuntary agents.

But the definition of a new relation with the body did not remain at a purely ideological level. Many practices began to appear in daily life to signal the deep transformations occurring in this domain: the use of cutlery, the development of shame with respect to nakedness, and the advent of “manners” that attempted to regulate how one laughed, walked, sneezed, how one should behave at the table, and to what extent one could sing, joke, play (Elias 1978:129ff). While the individual was increasingly dissociated from body, the latter became an object of constant observation, as if it were an enemy. The body was beginning to inspire fear and repugnance. “The body of man is full of filth,” declared Jonathan Edwards, whose attitude is typical of the Puritan experience, where the subjugation of the body was a daily practice (Greven1967: 67). Particularly repugnant were those bodily functions that directly confronted with their “animality,” witness the case of Cotton Mather who, in his *Diary*, confessed how humiliated he felt when, one day, urinating against the wall, he saw a dog doing the same in front of him:

Thought I ‘what vile and mean things  
are the children  
of Men in this mortal State.  
How much do our natural  
necessities abase us and place us in  
some regard on the  
same level with the very dogs’ ....  
Accordingly I resolved  
that it should be my ordinary practice  
whenever I step  
to answer the one or the other  
necessity of Nature to  
make it an opportunity of shaping  
in my mind some holy,  
noble, divine thought

(Greven 1967)

Also the great medical passion of the time, the *analysis of excrements* - from which manifold deductions were drawn on the psychological tendencies of the individual (vices, virtues) (Hunt 1970: 143–146)- is to be traced back to this conception of the body as a receptacle of filth and hidden dangers. Clearly, this obsession with human excrements reflected in part the disgust that the middle class was beginning to feel for the non-productive aspects of the body -a disgust inevitably accentuated in an urban environment where excrements posed a logistic problem, in addition to appearing as pure waste. But

within this obsession we can also read the bourgeois need to *to regulate the bodily* and cleanse the body-machine from any element that could interrupt its activity, and create dead times in the expenditure of labor. Excrements were so much fought and studied because they were the symbol of the “ill humors” that were believed to reside in the body, to which every perverse tendency in the person was attributed. Thus, for the Puritans above all, they became the visible sign of the corruption of human nature, a sort of original sin that had to be combatted, subjugated, exorcised. Hence the obsessive use of purges, emetics and enemas that were administered to children as well as the “possessed” to make them expel their devilries (Thorndike 1958: 553ff).

In this obsessive attempt to conquer the body in its most intimate recesses, we see reflected the same passion with which in these same years capital tried to conquer, one could say “colonize,” that alien, dangerous, unproductive being that in its eyes was the proletariat. For the proletariat was the great Caliban of the time. The proletariat was that “material being by itself raw and undigested” that Petty recommended to consign to the hands of the state, which with its prudence, “must better it, manage it, and shape it to its advantage” (Furniss: 17ff).

Like Caliban, the proletariat personified the “ill humors” that hid in the social body, beginning with the disgusting monster of idleness and drunkenness. For in the eyes of his masters, its life was pure inertia, but at the same time uncontrolled passion, and unbridled fantasy, ever ready to explode in riotous commotions. Above all, it was undiscipline, lack of productivity, incontinence, need for immediate physical satisfaction, as proven by fact that its utopia was not alive of labor, but the land of Cockaigne (Burke 1978; Graus 1987)<sup>27</sup>, where houses were made of sugar, rivers of milk, and not only could one obtain what one wished without effort, but one was paid to eat and drink:

To sleep one hour  
of deep sleep  
without waking  
one earns six francs;  
and to drink well

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<sup>27</sup> F. Graus (1967) states that, “The name ‘Cockaigne’ first occurred in the 13th century (*Cucaniensis* comes presumably from *Kucken*), and seems to have been used in parody,” since the first context in which it is found is a satire of an English monastery in the time of Edward II (Graus 1967: 9). Graus discusses the difference between the medieval concept of “Wonderland” and the modern concept of Utopia, arguing that:

“In modern times the basic idea of the constructability of the ideal world means that Utopia must be populated with ideal beings who have rid themselves of their faults. The inhabitants of Utopia are marked by their justice and intelligence.....The utopian visions of the Middle Ages on the other hand start from man as he is and seek to fulfill his present desires (ibid.: 6).

In Cockaigne (*Schlaraffenland*), for instance, there is food and drink in abundance, there is no desire to “nourish oneself” sensibly but only to gluttonize just as one had longed to do in everyday life. In this Cockaigne...there is also the fountain of youth, which men and women step into on one side to emerge at the other side as handsome youths and girls. Then the story proceeds with its ‘Wishing Table’ attitude, which so well reflects the simple view of an ideal life.” In other words, the ideal of Cockaigne does not embody any rational scheme or notion of “progress”; but is much more “concrete,” “lean[ing] heavily on the village setting,” and “depicts a state of perfection which in modern times knows no further advance” (Graus 1967: 7–8).

one earns a pistol;  
this country is jolly,  
one earns ten francs a day  
to make love

(Burke: 190).

The idea of transforming this lazy being, who dreamt of life as a long Carnival, into an indefatigable worker, must have seemed a desperate enterprise. It meant to literally “turn the world upside down,” but in a totally capitalist fashion where inertia to command would be transformed into lack of desire and autonomous will, where *vis erotica would become vis lavorativa* (labor-power), and need would be experienced only as lack, abstinence, and eternal indigence.

Hence the battle (both practical and theoretical) against the body, which characterized the early phase of capitalist development, and in different ways, has continued to our day. Hence that mechanization of the body, which was the project of the new Natural Philosophy, and the focal point for the first experiments in the organization of the state. For if we move from the witch-hunt to the speculations of Mechanical Philosophy, and the Puritans' meticulous investigations of individual talents, we see that a single thread ties the seemingly divergent paths of social legislation, religious reform, and the scientific rationalization of the universe. This was the attempt to rationalize human nature whose powers had to be rechannelled and subordinated to the development and formation of labor-power.

As we have seen, the body was increasingly politicized in this process, in the sense that it was denaturalized and redefined as the "other," the outer limit of social discipline. Thus, the birth of the body in the 17th century also marked its end; the concept of the body no longer defining a specific organic reality, but becoming, instead, a political signifier of class relations, and of the shifting, continuously redrawn boundaries which these relations produce in the map of human exploitation.

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