

Fetishism, technology and science-fiction

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ABSTRACT: In this paper Marx's concept of *fetishism* is used in order to analyze contemporary representations of technology in the science-fiction genre (concretely *Terminator*, *The Jetsons* and *Dune* will be used as examples) and discuss their correspondence to two major ideological perceptions of technology (the luddite and the productivist) and to one of the best attempts to grasp technology in a non-fetishized form (Marx's analysis in *Capital*).

KEYWORDS: science-fiction, ideology, technology

RESUMEN: En este texto el concepto de *fetichismo* construido por Marx es utilizado para analizar representaciones contemporáneas de la tecnología en el género de la ciencia ficción (concretamente *Terminator*, *Los Supersónicos* y *Dune* serán usados como ejemplos) y discutir su correspondencia con las dos principales percepciones ideológicas de la tecnología (la luddita y la productivista) y a uno de los mejores intentos de comprender la tecnología en una forma no fetichizada (el análisis de Marx en *El Capital*).

PALABRAS-CLAVE: ciencia ficción, ideología, tecnología

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1. Introduction: from fetishism to cultural analysis

The technological development that we have been able to achieve during the last three centuries, and specially during the last few decades, has no precedent in human history and deserves to be treated as a particular object of study from the perspective of social sciences; both the social conditions which made possible that technological development and the social transformations which were possible thanks to it have to be analyzed. However, this relation between technological development and social organization is not evident at all: could it be just a coincidence that this amazing technological advances have been made in the context of the development of the capitalist *mode of production*?, are we maybe facing just a particular form of scientific knowledge and practice which is part of the general and necessary evolution of human intellect as something totally independent from the social conditions in which those human beings *qua* "producers of science" are living?

Absolutely no. The technological development achieved during these centuries is totally related to and dependent on the needs of the capitalist *mode of production*, not only concerning productivity¹ but also

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concerning the production and reproduction of power relations. Furthermore, both objectives are closely related to each other: the increase of productivity is only possible through an exercise of power, and every exercise of power within capitalist society has as objective (directly or not) to maintain or increase productivity. Therefore, when in these pages we say technology we are in fact not only talking about machines but of a whole repertoire of practices, techniques and knowledges which, combined, make possible the increasing of productivity and the domination of one class by another².

But, as we have said, this relation is not self evident, and the proof of it is that, from the beginning of capitalist technological development, all political positions articulated around class struggle, and both defending or denouncing capitalist exploitation, have considered technology in various ways, but normally not in a totally accurate form and rather in a *fetishized* one.

On the one hand, those who experience the negative effects of technological development have a primary reaction of rejection, seeing technical progress as something intrinsically negative and harmful. We can say that they are under the effects of a certain *fetishism* of technology as far as they naturalize (technology is *per se* something negative that we should avoid), invert (machine dominates men) and dehistoricify it (men have always created terrible instruments that have produced more suffering). This is what we can call the luddite position.

On the other hand, a productivist discourse tries to show technology as something totally neutral, objective and positive. This is also a *fetishized* perception of technology which naturalizes (technology is *per se* something positive), inverts (technological development is the dynamic force of society) and dehistoricifies (there have always been technical progresses like those that we can see now). This productive position is common, though with internal differences, to mainstream capitalist and soviet (or traditional marxist) discourses.

Marx's** analysis of technology gives us a more complex view that stands in some way between those two *fetishized* or ideological poles.

In this pages we will analyze more or less in detail each one of these forms of understanding technology, using the notion of *fetishism* as interpretative tool for describing the kind of misunderstanding of reality which lays behind the two ideological positions that we have just

** In this text the reader can find several direct quotations from *Capital*; in that cases, the reference given is double: first, the reference to the spanish translation in Siglo XXI; then, the reference to the english translation that can be found on-line in the *Marx and Engels Archive* (marxists.org), indicating the chapter and, if necessary, the section. The quotations are always given following that translation.

broadly described. However, that analysis is not enough: as it is possible to do, for example, with commodity *fetishism*, it is necessary to prove how this *fetishized* conceptions of technology are socially spread, produced and reproduced. To do so, we have to find a source of discourses on technological progress (and mainly its future) which are developed with a more or less high level of details and easily assumed by their receptors as true or possible. This source is science-fiction³.

Therefore, to each one of the discursive positions mentioned (Luddite, productivist and Marx's ones) we will add a small description and analysis of a science-fiction example (respectively *Terminator*, *The Jetsons* and *Dune*) that will prove their persistence through time and how they are (or can be) socially assumed. We will show, therefore, how science-fiction can also be a *fetishized* and *fetishizing* social product; but the use of the category of *fetishism* in this context of, lets say, cultural analysis, is problematic and has to be justified. This is what we will do in the rest of this introduction.

The last word said by Marx concerning *ideology* was to forget this notion and to use, instead of it, that of *fetishism*. Though in many aspects it is a concept which works in a more precise manner within Marx's analysis of capitalist *mode of production*, it is always possible to discuss whether or not we can make its use extensive in order to analyze other forms of *ideology*. Within this discussion, the limit of the notion of *fetishism* emerges: it can be used for analyzing different ideological phenomena, but the concept itself doesn't provide an enumeration of ideological instances. Saying it in an *althusserian* way, we can analyze through *fetishism* different ideologies, but we won't get from the concept an extensive and complete list of the existent ISA's (though Althusser tries to do so) [cf. Althusser, 1994: 110-111]. However, is it really possible to give an exhaustive and complete list of ideological instances? It doesn't seem rather that *ideology* can be found almost everywhere? If one concludes that the only way of giving an extensive enumeration of social realities defined in some way ideologically is to say "everything is ideological"⁴, then the limit of *fetishism* is common to every theory of ideology or, on the other hand, its virtue: we can take the concept as far as our methodical questioning of appearances can lead us.

A different problem, however, is how to define art as an ideological product. Althusser mentioned the existence of "cultural ISAs", where arts and literature are included, but this kind of general identification is not satisfactory (as it was not for Althusser, who wrote clearly that his list had to be "examined in detail, tested, corrected and reorganized") [cf. *loc. cit.*]. Are literature and arts always reproducing the dominant

or hegemonic forms of ideology? Are they always inverting, naturalizing and dehistoricizing social realities? Though we can say that the mainstream artistic production can be in some way doing so, what we can't just omit is that there are also artistic works whose purpose is totally the opposite, this is: to reveal the real conditions in which society is working and to denounce the ideological condition of our assumptions.

How can we define, then, the relation between art and reality? Art is a form of representation that gives account of reality (or at least it pretends to do so) though it is not a perfect copy of it⁵. From this point of view, the ideological or non-ideological condition of the representation is derived from the original understanding of reality that the artist is trying to represent; from this first assumption we can deduce that, as any other ideological instance, as soon as art is ideologically produced, it contributes to the reproduction of that ideology⁶.

Though the cases analyzed in these pages will make this hypothesis clearer, let's give a short example now: imagine that an american director wants to make a film on Afghanistan war. The director has two major options: on the one hand, he can make a documentary (or docu-fiction) film, trying to show the history of the country, the political interests that the United States had on the invasion, etc.; on the other, he can call Sylvester Stallone, give him a machine gun, and make a film of two hours where the spectator will learn that afghan guerrilla is trained in Iran and economically supported by Hugo Chavez. In the first case, we would find a representation of reality; in the second one, we would be dealing with a representation of an ideological conception of reality.

According to what we have just said and trying to summarize, science-fiction, both in films and literature, would be a form of representing reality through an imaginative description of what that reality would be able to become; consequently, science-fiction stories would be affected by *fetishism* just if their contents are affected by a naturalized, inverted and dehistoricized vision of social reality and therefore contributing to naturalize, invert and dehistoricify it. In this pages, we will consider two different examples of this kind of *fetishist* representation and also a *non-fetishist* case.

2. "I'll be back" (Ned Ludd *dixit*)

As we have already said, the first discursive position that we are going to consider is the "luddite" one. It can be defined as a position that tends to forget that technological developments are determined by the

social conditions in which they appear; therefore, it presents technological development as something naturally harmful, that was, is, and will always be a menace towards mankind, and that though produced by humans, acquires immediate autonomy and becomes an opposed element.

The Luddite movement in England during the beginning of the 19th century can be taken (and normally it is) as a really early manifestation of this kind of discursive position, and in fact the adjective "luddite" is now broadly used for talking about opposition to technological development. It is not, however, and we have to take it in consideration, an accurate affirmation from a historical point of view, because the documents of the period concerning the Luddite movement clearly show that they were not irrationally acting against all kind of technological advances, but just against those that were clearly menacing their salaries or jobs. Besides this, there is also historical evidence of their clear consciousness: their patrons and the owners of the factories, not machines, were responsible of their problems⁷.

The simplistic interpretation of Luddite protests that we have inherited is clearly a product of the posterior revision of the period made by traditional marxists (historians, political activists or theoreticians), who wanted to emphasize the importance of the posterior labour movement (influenced by the development of the so-called "scientific socialism" and by the proletarian internationalism), as expression of the universal and revolutionary class struggle that should necessarily lead to the natural end of capitalism and the emergence of communist society.

However, their critique is not totally inconsistent. Though Luddites were not as clumsy as we normally consider them, their discourse and objectives were not revolutionary nor based on a working-class identity. They were rather a conservative movement which emerged among textile workers whose purpose was not to overcome capitalism but to protect their previous and particular laboral conditions, inherited from the pre-capitalist guild system⁸.

Therefore, we can still identify a certain form of technology *fetishism* within Luddite movement as far as it naturalized the negative effects of technological development and was not able to understand that technological transformations were not a form of disloyal economical behaviour but expression and consequence of deeper social changes that were also inevitably affecting to their traditional working status.

The persistence of this (broadly taken) luddite attitude can be found, for example, in anarcho-primitivists or amish communities, but is also a frequent point of view concerning science-fiction. Though there are a lot

of examples of science-fiction stories (novels, films, comics...) where, from a pessimistic point of view, we are told about a future society where technical development will be the source of human species' biggest problems, here we will take the example of *Terminator* (James Cameron, 1984) because of its fame and simplicity⁹.

This is the story: in 2029 humans in Earth try to resist against the intelligent machines that have already provoked a nuclear apocalypse in their attempt of destroying (without any knowable reason) humanity. The artificial intelligence network (Skynet) which organizes and directs the rest of intelligent machines has prepared a plan for destroying human resistants: it will send a Terminator, which is a robot with human aspect, to the past; the mission of the Terminator is finding and killing Sarah Connor, the woman who will be the mother of the resistants' leader, John Connor.

The film contains of course certain elements (mainly the issue of the time-travel and the temporal paradox that it generates as consequence) that make the film more complex, and they are doubtlessly reason enough to justify the possibility of taking *Terminator* as an object of study by itself; this complexity, however, can be ignored in these pages to make the analysis easier. If we added the elements that we have left out, the analysis would become more complex but the main characteristic of the film, the most important one from our perspective, would appear unchanged: in *Terminator*, technology is represented as something totally external, autonomous, dangerous and oppose to men that has to be eliminated. It is a given fact that machines are "bad" and that humans are not responsible for machines' actions nor can do anything different from destroying them all; also there are not shown nor mentioned social changes which we could suppose that should occur at the same time that artificial intelligence is created or is turning against its creators.

3. Rosey the (afro-american?) Robot

The second discursive position we have to analyze is the "productivist" one. Its view of technology, as we said before, is also result of a combined process of dehistoricification, naturalization and inversion, and presents technological progress as a natural feature of humanity which is totally independent from the social conditions in which it occurs, doubtlessly positive and that can't have any kind of negative effects.

We can call this position productivist because it is based on a depoliticized vision of productivity and production processes, maintaining an strictly technical

vision of them. Because of this neutral conception, this kind of vision is paradoxically shared by apparently opposed discourses, namely those produced to defend capitalist *mode of production* and those produced (by traditional marxism) to criticize it.

Taking the example of the organization of production in a factory, if it consists on a combination of assembly lines hierarchically organized that is because this form of organization is not only the best one but even the only possible. From this point of view, the eventual politicization of the sphere of production (and this is common, from this perspective, to the bourgeois and the worker) can't be done focusing on the production process in itself, but on the conditions in which that scientifically designed and neutral process is taking place. Based on this perception, the conflict between traditional marxism (including the practices of the Soviet Union) and its contemporary capitalist opponents was focused on the problem of the property of the means of production and totally forgot about how those means of production were used.

A clear example of the critical-thought-productivist position can be found in Marx's Preface to the *Contribution* of 1859, usually taken by traditional marxism as the main source of historical materialism and the clearest expression of Marx's analysis of capitalist economy:

In the social production which men carry on they enter into definite relations that are indispensable and independent of their will; these relations of production correspond to a definite stage of development of their material powers of production. The sum total of these relations of production constitutes the economic structure of society [...]. At a certain stage of their development the material forces of production in society come into conflict with the existing relations of production, or -what is but a legal expression for the same thing- with the property relations within which they had been at work before [Marx, 1972: 84-85].

According to this vision, relations of production (this is, property relations), will enter in contradiction with the natural, unstoppable development of the forces of production (this is, of the elements that make possible the increasing of productivity). The communist revolution's commitment, therefore, is just to abolish the existing property relations; the organization of the production process can remain as it was. On the other hand, social-democracy can justify its weak position in front of capital (or even its strong support to it) saying that they are just giving impulse to the natural development of the productive forces that, in the future, will be in contradiction with the relations of production and make revolution possible.

What they are forgetting, therefore, is that there is a reciprocal connection between the so-called forces and relations of production. The ones and the others are totally inseparable and it is totally impossible to maintain one without conserving (even unconsciously) the other.

The science-fiction example chosen in order to exemplify the persistence of this perception is the TV series *The Jetsons* (Hanna-Barbera, 1962-1963 and 1985-1987)¹⁰. It is an animated sitcom that in some way can be seen as the counterpart of *The Flintstones*. Both fictional experiments are in themselves totally *fetishist* as far as they dehistoricify, invert and naturalize the prototypical family associated to the *American Way of Life*: in *The Flintstones* it is taken back in time until primitive times (also with creationist elements, because dinosaurs live with humans), in *The Jetsons* it is taken to the future, showing an american family from the first decades of the 21st century. In the second case, this *fetishized* vision of american family during the 1960's appears together with a *fetishized* vision of technology. Therefore, for example, though there are machines that make, instead of humans, any kind of necessary labour at home (preparing breakfast or cleaning for example), the mother of the family still remains at home following the traditional family model of the time and she still is who has to push the right button in the right moment. Other example, and probably the most astonishing one, is the character of the artificial intelligent robot, Rosey, that the family has as a housemaid; first of all, it has a female name, but also it is more or less evident the suggestion of being the futurist representation of an afro-american housemaid (with the significant point that it is not paid but bought, resembling also an slave).

Watching the TV series, our first critical reaction can be to say that, without having so deep technological changes, the family structure (for example) has totally changed in the United States and also in Europe. But we could also wonder why so efficient machines are not working instead of humans in the rest of productive activities, which will make possible, for example, that the father of the family could rest at home the whole day; it seems that beneath this story we have the extension of a racial prejudice: "black people can't have intellectual jobs, so robots, *i.e.* the future black people, can't have them either".

Therefore, a totally *fetishized* vision of society is shown through this TV series: technology develops naturally and naturally makes our lives easier, but also it is totally natural that white people have servants (that "now" are afro-americans but "in the future" will be robots), that women stay a home even though they could do something else, that people have employments and get salaries, etc.

3. From the *Butlerian Jihad* to the *Golden Path*: a look into "reality"

Though traditional marxism based its productivist perspective on certain affirmations made by Marx, we can in any case defend that Marx himself had a more complex understanding of technology that at the same time criticizes the two ideological positions that we have analyzed

until now. Marx's position concerning technology is expressed clearly in *Capital*, when he explains in details the production of *relative surplus value*, and specially when he analyzes machines and industry.

Marx's position concerning technology can be shown as the articulation of two poles: on the one hand, Marx shows that technology is the necessary tool used by capital in order to achieve the real subjection of labour; on the other, Marx more or less assumes implicitly the possibility of a non-capitalist use of machines.

On the first issue, Marx writes:

The prolongation of the working-day beyond the point at which the labourer would have produced just an equivalent for the value of his labour-power, and the appropriation of that surplus-labour by capital, this is production of absolute surplus value. It forms the general groundwork of the capitalist system, and the starting-point for the production of relative surplus-value. The latter presupposes that the working-day is already divided into two parts, necessary labour, and surplus-labour. In order to prolong the surplus-labour, the necessary labour is shortened by methods whereby the equivalent for the wages is produced in less time. The production of absolute surplus-value turns exclusively upon the length of the working-day; the production of relative surplus-value, revolutionizes out and out the technical processes of labour, and the composition of society. It therefore presupposes a specific mode, the capitalist mode of production, a mode which, along with its methods, means, and conditions, arises and develops itself spontaneously on the foundation afforded by the formal subjection of labour to capital. In the course of this development, the formal subjection is replaced by the real subjection of labour to capital [Marx, 1984: 617-618/MEA Ch. XVI].

This fragment shows how Marx was understanding the form in which technology is conditioned by the development of capitalist society and domination structure. It arises as the necessary tool that capital has to use in order to achieve the real subjection of labour and the consequent increase of productivity (with the production of *relative surplus value*) despite the natural limits of the working day that affect the production of *absolute surplus value*.

Concerning the non-capitalist use of machines, Marx is not explicit; he didn't write too much in details about his conception of the possible non-capitalist labour and the same can be said about technology or machines. But frequently he uses the expression "capitalist use of machinery", and this is an important exercise of precision that has to be considered:

The contradictions and antagonisms inseparable from the capitalist employment of machinery, do not exist, they say, since they do not arise out of machinery, as such, but out of its capitalist employment! Since therefore machinery, considered alone, shortens the hours of labour, but, when in the service of capital, lengthens them; since in itself it lightens labour, but when employed by capital, heightens the intensity of labour; since in itself it is a victory of man over the forces of Nature,

but in the hands of capital, makes man the slave of those forces; since in itself it increases the wealth of the producers, but in the hands of capital, makes them paupers-for all these reasons and others besides, says the bourgeois economist without more ado, it is clear as noon-day that all these contradictions are a mere semblance of the reality, and that, as a matter of fact, they have neither an actual nor a theoretical existence. Thus he saves himself from all further puzzling of the brain, and what is more, implicitly declares his opponent to be stupid enough to contend against, not the capitalistic employment of machinery, but machinery itself [ibid: 537-538/MEA Ch. XV sec. 6].

What Marx poses, therefore, is a critique of the capitalist fetishist pretension of having achieved the only necessary and possible form of technological development and employment of machinery; that pretension is equally shared and assumed by productivists and luddites, independently of the positive or negative judgment that they try to support on that basis. What however seems clear, is that non-capitalist use of machines does not consist (or at least not exclusively) on changing the property status of the means of production, but rather on orienting its use and development towards the abolition of capitalist labour.

The science-fiction example chosen for this last case is *Dune* saga of novels. It has to be the first five novels and not the films¹¹ because just the articulation of the story told through the first five books can be taken as a *non-fetishized* representation of technology. Because of the complexity of the argument (that however is what makes possible to represent in a right way the issue that we are treating), and as we are going to consider an artistic creation less known than *Terminator* or *The Jetsons*, a longer and deeper explanation of the story is needed in this case, though major contents of each book won't be revealed because they are not necessary¹²:

The story begins in a really far future (around 21000 years after our time); it is situated in a kind of feudal interplanetary empire where relations of power are in a complicated equilibrium that has as center the planet Arrakis (also called Dune) and the scarce product obtained from it: the spice.

The origin of this balance of power is the Butlerian Jihad, a violent human revolt against machines that meant the destruction and interdiction of any kind of thinking machine or artificial intelligence (it is justified arguing that humans were not free because they were being dominated by machines). That interdiction and revolt had as result the emergence of new forms of technology totally based on the use of "the spice". It is the key element that sustains the technological formation of the society described in the novels but also what makes necessary

the permanence of the existing balance of power. The main forces that we have to consider are:

The Bene Gesserit. It is a religious order formed exclusively by women. They have psychic powers as controlling or reading human minds, seeing (in a limited form) their future or having the memories of all their female ancestors, and also important physical abilities. Though they normally are allied with the Emperor, in any case they have their autonomy and their own plans; their members normally get married with influent men from the different aristocratic houses, with a double purpose: on the one hand, maintain and increase their political influence; on the other, manipulate biological lineages in order to improve the species and obtain new potential members. In the long term, they hope to find the Kwisatz Haderach, a man that would have the same abilities as the most powerful Bene Gesserit feminine members though, as male, he would have a total and perfect foresight and also would be able to use not only his female memories but also the male ones. They need the spice in order to use certain powers (mainly foresight) and because it prolongates life.

The guild. It is similar to the Bene Gesserit, but it just trains men. They have the monopole of space traveling thanks to their high consumption of the spice, that makes them able to see the future and calculate perfect routes to cross the universe without risks. The unity of the Empire depends on their cooperation and on their access to spice; without spice, the navigators can't survive or design routes, and spaceships can't travel within a proper lapse of time.

Aristocratic houses. They are various and of different relevance; are gathered together in a kind of parliament called Landsraad. They have patrimonial control of certain planets and one of the houses controls the Empire. When the story starts, it is controlled by the House of Corrino. The other two important Houses are those of Atreides and Harkonnen.

Arrakis (Dune). As it is the planet where the spice is produced, it is in itself a center of power within the Empire. The control of the planet depends on the imperial company that extracts and provides spice to the different actors, the CHOAM, and this company is managed by an aristocratic house chosen by the Emperor. At the beginning of the story, Dune is governed by the Harkonnen, but it is suddenly transferred to the Atreides as part of a hidden plan prepared by the Harkonnen and the Emperor in order to destroy the House of Atreides. The spice is in a necessary relation with the planet's ecosystem: the planet is a huge desert inhabited by enormous worms; the worms get born from con-

centrations of spice. This means that Arrakis has to be a desert in order to preserve spice production and spice production depends on the reproduction of the worms that can just survive in Arrakis' desert. Though there are some cities where normal people live, there are also tribes of semi-nomad men (the Fremen) who live in the desert; they resisted against the tyrannic govern of the Harkonnen and are the only hope of the House of Atreides: with their cooperation, they can fight against the Harkonnen and the imperial troops.

Coming back to the story, it begins when, at the same time that the Emperor gives the control of Dune to the House of Atreides, the Bene Gesserit finds out that one of their members, Lady Jessica, the wife of Leto Atreides, has given birth to a boy (Paul) and not to a girl as she was supposed to do according to the Bene Gesserit's breeding plans. Due to the temporal success of the plan prepared by the Harkonnen, Leto Atreides is murdered and Lady Jessica and Paul run away into the desert. The Harkonnen imagine that they have been killed by a worm, but in fact they are saved by the Fremen; Paul, who is the Kwisatz Haderach, becomes the leader of the Fremen Resistance, defeats the Harkonnen and becomes the new Emperor. Thanks to his alliance with the Fremen, he has the total control of the spice and can impose his own will on the Bene Gesserit, whose leaders are terribly afraid because Paul is absolutely more powerful than them, and the rest of the Empire [cf. Herbert, 1965].

Paul, however, is not totally happy with his situation: he foresees his fate but he tries to avoid it because it seems terribly violent and cruel. Though he will not accept his destiny, the story won't end with his death, because his son, Leto II, will be even more powerful than his father and will assume his fate, which is guiding humanity through the Golden Path. To do so, he becomes a God-Emperor (half human and half worm) that tyrannically rules the Empire during 3500 years thanks to the spice monopole. During that time, he transforms Arrakis (the desert almost disappears) and develops a breeding program similar to that one by the Bene Gesserit. His purpose is to totally change human species, using Atreides genes, because from Paul and onwards they are totally out of the control of the predictive powers of the Bene Gesserit or of the Guild. Through his tyrannical government, therefore, he is making possible the real liberation of mankind [cf. Herbert, 1969, 1976, 1981].

Finally, 1500 years after Leto II's death, the Bene Gesserit will finally understand his plan and will assume the role that he thought for them: continuing with its breed program and making humans free from the powers that give to the Bene Gesserit its own authority [cf. Herbert, 1984].

So, why is this story representing so well the relation between the organization of society and its technological development? Because, in the beginning of the story, Bene Gesserit's defense of the Butlerian Jihad is based on the idea that humanity was liberating itself and becoming free from machines' domination. What it happened, however, is that a new social organization (the interplanetary Empire) with new forms of technology (foresight, mental control...) that made possible new forms of domination emerged from the Butlerian Jihad and didn't liberate humanity. Leto II's objective (what he calls the Golden Path) is to make totally ineffective the new forms of technology developed by the Bene Gesserit and the Gild in order to make humanity really free, but it is not done, as during the Butlerian Jihad, in a *fetishistic* manner ("machines are guilty, let's destroy them"), but through a terrible exercise of power and violence (during more than three thousand years) that totally changes the balance of power within the Empire ("foresight is a limit for human freedom, yes, but it has been produced by and depends on certain social organization and certain relations of power that are the first thing that we should change").

5. Conclusion: "There is no spoon"¹³

Through these pages we have tried to use the notion of *fetishism* in a double manner: on the one hand, as a concept that can express the kind of defective understanding of the relation between technology development and social conditions within the context of the capitalist mode of production; on the other, as a tool for analyzing three cultural products as representations of the different forms of understanding technological development previously exposed. Though, as we said in the introduction, the concept of *fetishism* can't provide us with an extensive list of the social realities that can be analyzed thanks to it, we have tried to show how useful it can be in order to critically study certain contents that can be found in cultural products as films, TV series or novels. Besides, we have demonstrated that Marx himself thought about the necessity of analyzing the relation between technological development and the "mental conceptions" that emerge at the same time.

There are two questions, however, that we should try to answer in this conclusion: Why do we have three different forms of technology *fetishism*? And why is so recurrent the figure of artificial intelligence as manifestation of the dangers of technology? We can maybe find an answer to both questions seeing the connection between these three forms of technology *fetishism* and other *fetishisms* associated to the capitalist *mode of production*.

The first one, that we have called luddite, seems to be in relation with a strong (*fetishist?*) defense of the *concrete labours*. Each worker defends his work against the objectified menace of machines, conceiving what he does as a necessary activity that has always been done by persons like him (naturalization and dehistoricification), and that should be appreciated by itself and not because it's the concrete expression of *abstract labour* as *substance of value* in capitalist societies (inversion).

The second one is the productivist but supposedly anticapitalist position of traditional marxism. It is related to a certain *fetishism* of labour; human beings are ontologically defined by their metabolic relation with nature (labour), and technology is a necessary part of that ontological relation as a mean of production. What they are unable to see is that the labour that they are taking as the ontological essence of human species is the capitalist form of *abstract labour* and that the technology that they are also assuming as part of that ontological description is in fact a specific form of technology that capital needed in order to produce and maintain the power relations that emerge from the *law of value*.

The third one is the productivist and pro-capitalist position. In this last case, what is *fetishized* is capital itself. It produces and generates *surplus value* on its own as it has always done and technology is an independent element, that evolves thanks to its internal dynamical forces and that provides capital with the knowledges that it needs in order to produce more and better. What they don't want to see is how specific is this form of producing wealth and how fragile it is because it depends on labour as really productive force (machines can't produce *surplus value*, they just transfer their *value* to the product); what they can't recognize¹⁴ is that capital develops certain forms of technology in order to reinforce its domination on labour and to make possible its reproduction as dominant social relation.

So, now, can we say what is the relation between technology *fetishism* and artificial intelligence? Let's rationally consider the possibility of creating machines (let's say robots) as capable as human beings. As we already said analyzing the case of *The Jetsons*, it seems reasonable in that hypothetical situation to leave any kind of obligatory labour in the hands of robots and dedicate our time to anything else. But this hypothesis is going to be taken, by any of us, with a strong skepticism: if we have no work, we have no money, and without money we can't buy, and without buying we can't survive because we need food, a house, some clothes, etc. Though we could continue this discussion suggesting that maybe in that context we should forget too about money, commodities, the need of exchange and so on, let's go down to earth and

take the idea of artificial intelligence just as a metaphorical representation of the mechanization and automatization of the productive processes.

For the luddite, the possibility of mechanization shows how terribly unimportant is for our economical system the *concrete labour* that he is doing during his whole life, even though he can be told by others that he is preparing the best bread in the town, making the nicest dresses or printing the most interesting books. His labour is just important as far as it produces commodities that contain *abstract labour* and therefore a certain *value* that makes them exchangeable. The mechanization, that for him means unemployment, appears then as a terrible Terminator when, in fact, he knows very well that with or without mechanization his work in itself means nothing.

For the productivist procapitalist, it shows how fragile is our economical system because it is based on the contradictory relation between the seek of profit through the increase of productivity (that means technological development, mechanization, and reduction of the need of human labour) and the need of introducing new human labour in the process of production because it is the only source of *surplus value*. So it is better to imagine that robots, if they existed, would be affected by the same racial discrimination as afro-americans.

For the productivist anticapitalist, it shows how working class is just the product of capitalist society and how the identity of "worker" that he proudly defends is in fact what has to be totally abolished in overcoming the capitalist *mode of production*. From a workerist position it is unacceptable that the success of revolution in fact should mean the total abolition of what is supposed to be the revolutionary subject, so it is better to read historical evolution of societies as a simple dialectical opposition between forces and relations of production.

The rational hypothesis of the future existence of artificial intelligence makes us face, and let's use as Zizek the lacanian terminology, "*the Real*"; this is: that the activities that supposedly define us are not socially relevant, that our identity as oppressed won't make us able to overcome oppression, and that our whole social system is based on a fiction that, despite its fragility, is able to survive thanks to our complicity with a terrible and constant exercise of violence. Science-fiction (*fetishized*) *fantasies* are the way of hiding that "there is no spoon".

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Notes

1. "Productivity" is differently understood in "vulgar economics" and in Marx's political economy: according to the former, it is the quantity of commodities produced by worker in a certain lapse of time; according to the latter, it is the quantity of *surplus value*. Productive labour is not that one which produces things but that one which produces *surplus value*, and the capitalist is only interested in the production of a certain *social use value* as far as it contains *surplus value* that can be realized once it is sold. In this pages, the notion of "productivity" is always used in this second sense. Besides, in relation to this definition, technology in the context of capitalism can be defined as the whole repertoire of knowledges, practices and tools that are used in order to make possible the production of *surplus value* and therefore the production and reproduction of capitalist power relations.
2. Though probably he would not emphasize the class dimension of this second perspective, anyway we can read Foucault's analysis on power and its exercise through "anatomy-politics" and "biopolitics" [cf. Foucault, 2004: 243] as a deeper insight in the issue.
3. The connection between science-fiction and capitalist technological development can be taken further, because we can easily affirm that the development of the genre is parallel to that of capitalism. This means, on the one hand, that science fiction only appears as a literary (and after cinematographic) genre after the incredible technological (and social) transformations that began to occur during the 19th century. On the other, its development, improvement and diversification is totally unseparable of the process of commodification (and therefore massification) of artistic production and consumption.

Besides, we should point out that this connection between technological development and the (let's say) ideological expressions that can emerge from it was in fact already pointed out (though not explored) by Marx himself:

"A critical history of technology would show how little any of the inventions of the 18th century are the work of a single individual. Hitherto there is no such book. Darwin has interested us in the history of Nature's Technology, i.e., in the formation of the organs of plants and animals, which organs serve as instruments of production for sustaining life. Does not the history of the productive organs of man, of organs that are the material basis of all so-

cial organisation, deserve equal attention? [...] Technology discloses man's mode of dealing with Nature, the process of production by which he sustains his life, and thereby also lays bare the mode of formation of his social relations, and of the mental conceptions that flow from them" [Marx, 1984: 453/MEA Ch. XV sec. 1 footnote 4].

4. One of the most extensive lists is surely that made by Althusser. But even his enumeration faces problem when, for example, we have to classify Zizek's analysis of european toilets [cf. Zizek, 1999: 90].
5. Probably its difference with other forms of knowledge is that the artistic representation has not (at least generally) the aspiration of reaching a pure knowledge of the object, differentiating between substance and accidents. For example, the painting *Ophelia* by John Everett Millais is a representation of death that gives account of reality in a different way that the medical definition of death as a biological process.
6. Using the conceptual tools offered by Ernesto Laclau and Chantal Mouffe [cf. 1985: 93-148], we could say that art is a form of articulation of elements. However, this articulation is not necessarily done following the hegemonical point of view, so art can become a contra-hegemonic practice. A different question, of course, that can't be considered here, is whether or not contra-hegemonic art is a politically effective form of resistance.
7. This is particularly clear, for example, in the "Report of Luddite activity in Yorkshire", written by the Earl Fritzwilliam in 1812 (see on-line on marxists.org, History Archive, British History, The Luddites and the Combination Trade Acts).
8. In a declaration written by Ned Ludd, leader of the Luddite movement, in 1812 we can clearly read that what they want is just to protect their acquired privileges; the Declaration ends with the phrase "God protect the trade", significant proof of the absence of any revolutionary pretension (see also on-line on marxist.org, *loc. cit.*).
9. The trailer of the film can be watched in YouTube: <http://www.youtube.com/watch?v=Ep-dAcA6ziiA>
10. One of the first chapters of the TV series, *Rosey the Robot*, that tells the story of how and why the family buys a robot, can be watched (divided in four parts) in YouTube. Here is the link to the first part: <http://www.youtube.com/watch?v=9VyvnzhP2uM>
11. David Lynch made a film in 1984 that was the adaptation of the first novel. In 2000 appeared a new (and better) adaptation of this first novel (*Frank Herbert's Dune*); it was a TV mini-series of three episodes directed by John Harrison. In 2003 John Harrison released a second TV mini-series, *Children of Dune*, which is the adaptation of the second and the third novels (*Dune Messiah* and *Children of Dune*).
12. The Prologue made by David Lynch for his adaptation of *Dune* (included in the extended edition of the film) can clarify this complicated schema. It can be watched in YouTube: <http://www.youtube.com/watch?v=-FUAQ-dAh0g>
13. This is a reference to a scene of *The Matrix* (Wachowsky Brothers, 1999). In it, a child is "bending spoons" with his mind; when he explains to Neo (Keanu Reeves) how to do it, he says that himself, and not the spoon, is bending, because the spoon doesn't exist and is just part of a dream induced by a machine that we take as if it were real. The scene can be watched in YouTube: http://www.youtube.com/watch?v=dzm8kTIj_0M
14. And, if they can, it doesn't matter, because, as Zizek pointed out, if ideology is defined as "they don't know that they are doing it but they are doing it" [Marx, 1984: 90/MEA, Ch. 1, Sec. 3, C.3], the important thing is not to know or not to know, but to do or not to do [cf. Zizek, 1994: 314].