

TECHNOLOGY, NEEDS AND POWER AS MEANS OF DISTRIBUTION AND JUSTICE

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Abstract:

This paper provides a review of the philosophical traditions on the study of social inequality and recent theories of justice. On the one hand, it sets forth the fundamental ideas of those philosophers who have been labeled as *conservative* or *functionalists* and have defended inequality as something which is expected to be *just* and *inevitable*. On the other hand, it presents, as well, the ideas of those philosophers known as *radicals* who state not only that social inequality is *unjust*, but rather that it is *evitable* as well. Subsequently, the paper describes the main ideas concentrated in what Lenski (1993) calls the growing dialectic synthesis of the theory of social stratification which incorporates elements from both traditions. The paper reviews the theories of distribution based on the principles of political economy proposed by the classical economists, and contrasts them with those proposed by the marginalist theory and the theory of social stratification. In doing so, the paper briefly considers the relationship between technology, and political instruments of distribution such as needs, power and privileges. Regarding the recent theories of justice, the paper mainly focuses on the proposals of Rawls (1971) and Nozick (1974). Finally, with respect to the current state of affairs, the roles of information-based technology and modern post-Bretton Woods financial institutions are briefly discussed –in terms of their complementarities– to explain the well known persistent increase in global social inequality.

Keywords: Technology; needs; power; functionalists; radicals.

1. ON PHILOSOPHY AND SOCIAL INEQUALITY

1.1 Social inequality: Thesis and antithesis

Since the pre-Christian era, fundamental controversies have been present regarding the causes, justification and consequences of social inequality. On the one side, those philosophers who have been labeled as *conservative* or *functionalists* have defended inequality as something which is expected to be *just* and *inevitable*. On the other side, those known as *radicals* state not only that social inequality is *unjust*, but rather that it is *evitable* as well.

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Around year 800 B.C., some Hebrew prophets such as Miqueas, Isaias and Amos criticized throughout their scriptures the evident social differences among rich and poor. Contrarily, Hindu priests around year 200 B.C., defended social inequalities -in their Manu Law¹- as a divine order on behalf of the wellbeing of humankind. However, the fact that those Hebrew and Hindu views were the prominent ones at their times, does not mean at all such views were unique (Lenski, 1993).

Greek philosophers, for instance, provided arguments in favor of both views. In his treaty on Politics, Aristotle (1984) argued against the radical propositions of Plato (1955) and others² who believed in the importance of promoting common property. Aristotle, who did not sympathize with many aspects of the existent social order, was, however, in favor of private property and other basic institutions upon which the system of social inequality was built.

During its first phases, Christianity as well showed a mixture of both radical and conservative elements. On the one side, the communism of the primitive Christian Church constituted an implicit clear critique against the existent inequalities of society. However, as Lenski (1993) indicates, the scriptures of Saint Paul which had a great influence upon the posterior Christian thought manifested a much more conservative spirit. Lenski (1993) points out that at least in four of his main epistles, Saint Paul exhorts the slaves to obey their masters³. Thus, Saint Paul as well as Aristotle (1984) considered slavery as part of the natural world and compared the obedience of the slaves to their masters with that of the children with their progenitors.

While the Christian Church was gaining power and influence, the most radical tendencies started losing support at least among those who exercised leadership. The conservative view became an ecclesiastic thesis and doctrine during century XII with the English Bishop John of Salisbury. In his *Polycraticus*, John of Salisbury (1990) explained the organismic analogy previously suggested by Aristotle (1984) and the Hindu priests who compiled the Manu Law (see footnote 1). In terms of John of Salisbury (1990), society is like the human body. The prince is the head, judges and governors are the eyes, ears and tongue. The senate is the heart, and those around the prince the flank. Soldiers and civil servants are the hands, while tax collectors represent the stomach and the intestines. The common people are the feet, and the clergy its soul. John of Salisbury held that the

¹ See Olivelle (2004).

² For instance, Faleas of Calcedonia.

³ Ephesians 6: 5; Colossians 3.22; I Timothy 6:1; and Titus, 2: 9.

prince is only submissive to God and their representatives on earth: the priests. All others must offer obedience and service, especially those belonging to the common people who represent the feet of the whole society.

John of Salisbury (1990) as many other conservative intellectuals viewed society as a system of parts which even though deploys different functions, is always unified by links of mutual dependence. Basically, for John of Salisbury and many other conservative thinkers, inequality, instead of being an undesired obstacle for social welfare, was a necessary prerequisite. Equivalently, for several other religious philosophers, like Saint Thomas Aquinas (1968, 2002) who was influenced by the Aristotelian thought, the institution of private property was justifiable by positive law under the claim that it had the virtuous consequence of avoiding disputes among people. However, in the view of Thomas Aquinas (1968, 2002), the notion of private property differs from that conceived by Roman law in the sense that property rights should also have a social objective in benefit of the poor, implying this last argument that private property should be meant not to generate maximum profits but only "just profits"⁴.

However, as before, while the leaders of the medieval Christian Church were convinced about the virtues of social inequality, the common people were not. Thus, during century XII, successive radical religious movements took place criticizing against opulence and advocating in favor of poverty. Some of them, like the Franciscans remained within the structure of the Church, while others like the Waldensians who censured the wealth and power of the Christian Church became heretic and persecuted⁵.

⁴ Despite of the prominence of oligopolies at the time, further notions such as the Taccamento (Tagging) and Ragnaglio (Mark-up) were developed in order to induce the labeling of final products with their corresponding structures of costs of production from raw material and manufacture.

⁵ Subsequently several other non-religious popular revolts took place as well. For instance, in medieval Florence, precisely in 1378, the Revolution of the Ciompi - or "wool carders" - was a briefly successful insurrection of the lower classes- or popolo minuto. The revolution started after the Ciompi presented several petitions to the government, demanding more equitable fiscal policies and the right to establish their own guilds. The revolutionaries within the Florentine republic were backed by radical members from the minor guilds, and the *arti minori*. They extended guild privileges to the Ciompi, and established a democratic government which, however briefly, represented all the classes of society. The disappointment of the Ciompi due to the new government's failure to implement all their utopic demands, and the conflicts of interests between the minor guilds and the Ciompi became the major reasons why they were defeated through a counter-revolution organized by the most conservative elements of the Florentine society.

Radical Christian movements continued long way after the Reform, and disappeared only during century XIX, when Marxism provided a new direction and hope on behalf of radicalism. However, previous to Marxism, radical religious movements were lead by Gerrard Winstanley ([1649]) an English Protestant who was associated with a group known as the True Levellers. Such a group was later identified as the Diggers, a label which was due to the actions of taking-over idle public lands for digging up and planting new crops. For Winstanley ([1649]), the cause of inequality was not either divine or just, but instead it was explained by selfishness and greediness.

Ever since the English Revolution of 1648, and the French Revolution of 1789, the forces of radical egalitarianism accomplished extraordinary advances both from the intellectual and the political point of view. On the political front these two main revolutions in the name of egalitarianism took place and an international mass political movement under the name of Socialism was born. On the intellectual front, and precisely during the Enlightenment period of the centuries XVII and XVIII, John Locke (1988, 1994) and Jean Jacques Rousseau (2004a, 2004b) made a great accomplishment by popularizing the theory which states that sovereignty ultimately resides on people as a whole and not on the king. Even though they were not the first to propose such a theory, with them this theory gave birth to a satisfactory political action. Locke and Rousseau' ideas such as that of the "social contract" rapidly served for the purpose of undermining the former theory of the divine rights of the king, and as well for setting up the bases for the modern conception of the natural law, and that of the "general will"⁶.

While the principal egalitarian movements of the century XVIII were oriented towards the destruction of the legal inequality, those from centuries XIX and XX had focused on the eradication of the economic inequality⁷. In this period, Socia-

⁶ Previous to the contributions of John Locke (1988, 1994) and Jean Jacques Rousseau (2004a, 2004b), the so-called utopians had made a lot of intellectual progress too. Sir Thomas More ([1516], 2002), Tommaso Campanella ([1602], 2004), Antonio Francesco Doni ([1552]), and François Rabelais ([1534], 1937) represent good examples. While the first two correspond to the so-called *utopia of order* characterized by an authoritarian view, the last two correspond to the so-called *utopia of freedom* associated instead to an anarchic view. Specifically, Francesco Doni shared the view of an idealized world in which humankind exists only as a part of a *social body* whose leaders are senile, and whose people feel to belong to a "big family". For Doni, it is society which determines individual behavior. In his idealized world there is no private property of land and the economy is centrally planned by the government. In such a world, the principle of distribution was to be "from each according to his ability and to each according to his needs".

⁷ A good example, previous to the contributions of Karl Marx and Friedrich Engels (1998), represents the case of Robert Owen (1977) who is considered the Father of the "Coopera-

lism moved from the philosophical speculative front to the realistic political one. It was precisely in 1848 with the Communist Manifesto of Karl Marx and Friedrich Engels (1998) that the radical thought reached its critical point. It briefly explained the causes of social inequality, but as well proposed a clear program of political action in order to accelerate the birth of a new social order labeled as Scientific Communism.

Marx and Engels (1998) left clear that the nature of social distributive systems were dependent upon the underlying productive organization. In their view, in most primitive and simple societies, communism was inevitable because the private property of the means of production was absent, but with the establishment of agricultural societies the property of the means of production became rapidly private, leading in turn to the division into different social classes. Thus, as the evolution of productive systems took place, and societies continuously passed through different modes of production, the social distributive system evolved as well.

Marx (1981) also postulated that social evolution and progress responded to a Hegelian dialectic process in which the basic units were precisely the existent social classes. These, in turn, constituted the vital forces of history; and struggling, the main prerequisite for progress. An additional postulate of the Marxist theory was the existence of a historical determinism. For Marx, the main course of history was inevitable, and humankind could just accelerate or delay its transition, without ever being able to change its direction.

Many elements of the Marxist theory were, however, taken from previous sources. One example is the principle of distribution in accordance to needs, which comes from the Acts of the Apostles and describes the way of living of most primitive Christian communities. An additional example is the employment

*tive movement*⁸. The Peruvian-English entrepreneur, moved by his utopic and humanitarian beliefs, tried to organize a new form of *socialist* firm in which the combination of production and education were fundamental. Owen's theory defended the equitable exchange of labor; that is, for Owen, commodities should be exchanged at their labor values instead of at their market values. Several other examples include the case of the so-called Ricardian Socialists. They tried to combine Ricardo's theory of value and Distribution with Owen's theory. As capital is accumulated labor, by Invoking Locke's postulates about natural law and human rights one of which is the rights to own the product of one's own labor, Ricardian Socialists argued that capital ultimately belongs to workers, and therefore, the final value of commodities should be its labor value. Thus, Ricardian Socialists used the previous argument both to justify a new utopian order, and to explain why exploitation was unjust as it ultimately represented the negation of the natural order. Comte de Saint-Simon ([1825]), Charles Fourier ([1829], 1972) and other thinkers were the main representatives of these philosophies.

of Winstanley's ([1649]) view that the ultimate purpose of law was to serve as an instrument of oppression by the dominant classes to exploit the dominated ones.

While the radical view had made a great advance at the time, the conservative viewpoint had made a lot of progress too. Philosophers like Thomas Hobbes (1958) who was influenced by Niccolò Machiavelli (1984) represent a good illustration. According to Hobbes, man has a self-interested and materialistic desire to end war - "the passions that incline men to peace are fear of death, desire of such things as are necessary to commodious living and a hope by their industry to obtain them" (1958, xiii, 14). Hobbes states that man forms peaceful societies by entering into a social contract. According to Hobbes, all individuals in society give up just enough of their freedom to be able to ensure internal peace and a common defense. The sovereign, whether monarch, aristocracy or democracy (though Hobbes prefers monarchy), should be a Leviathan and absolute authority. Thus, for Hobbes, law is meant to guarantee the enforcement of contracts.

Probably, the most important conservative contributor was Adam Smith (1975), founder of the economic science. With his works, from which one of the main ones was *An Inquiry into the Nature and Causes of the Wealth of Nations*, Smith (1975) provided a clear analysis of the markets and the laws which explain their operations. His most valuable contribution to the conservative thought was the "invisible hand", through which the private self-regarding interests and acts of men finally guaranteed the most convenient interests and outcomes for the whole society. For Smith, even though no one works for the common good, and everyone follows his own private selfish interest, a free market system always renders the greatest common welfare.

In the next century, the Darwinist theory provided the conservative intellectuals with a new astonishing argument. Analogically to the biological meaning, the social Darwinists stated that a natural selection process applied as well for humankind. They argued that the most talented men were to face better opportunities than their less gifted neighbors. The former were to reach relevant positions in society, while the latter were to become the working class.

In Folkways at the beginning of century XX, William Graham Sumner (1907) manifested that the system of social classes constituted a measure of social value, which in turn was a measure of natural capacities. For Graham, in any system of social stratification, inequalities due to different opportunities and luck are legitimate. However, from his viewpoint such inequalities would only be of minor importance.

While the social Darwinists like Graham developed a new formulation of the conservative thesis, Gaetano Mosca (1939) was simultaneously providing a new

one. Mosca reacted against the socialist theory by arguing in relation to two of his basic postulates: (i) human societies cannot ever work without political organization, and (ii) political organization necessarily implies inequalities of power. Thus, Mosca concluded that there will always be two classes of people, "a class which governs, and a class which is governed". Moreover, because men are in principle selfish, the former class will always be privileged from the economic point of view. For Mosca (1939), even though the privileged class represents always the minority, it preserves its power due to its superior organization, the absorption of potential leaders from inferior classes, and as well, due to the use of political formulas and theories in order to justify social inequality and to take advantage of social conformism.

At present time, most modern theories of inequality can be included into one of the two main categories. Those coming from the conservative tradition are nowadays labeled as "functionalist theories". Those originated from the radical tradition are generally well known today as "theories of conflict".

Parsons and Smelser (1965), and Davis (1949) are well representatives of the functionalist theory. Precisely, Davis states that social inequality is an unconsciously developed resource through which societies guarantee that most relevant positions are consciously taken over by most qualified people. In short, social stratification comes from the needs of the society and not from the needs and desires of its people. As all positions cannot be of same relevance, and as all men are not equally qualified for those positions of greater responsibility, inequality is not only inevitable but as well is necessarily beneficial for all because the survival and welfare of every individual depends on that of the society as whole.

On the other side, the theorists of the conflict focus on the problem of social inequality from the viewpoint of the different individuals and subgroups belonging to a society. Their needs and desires, rather than the needs of the whole society represent the main postulates of these thinkers. The theorists of the conflict consider that social inequality comes from the struggle for scarce valuable goods and services.

Thus, whereas functionalists underline the importance of commonly shared interests which serve to unify the members of a society, the theorists of conflict emphasize those interests which divide them. While functionalists insist in the common advantages resulting from social relations, the theorists of conflict underline the elements of domination and exploitation. While functionalists believe in consensus as a base for social unity, the theorists of conflict highlight the elements of coercion. Whereas functionalists consider human societies as social systems, the theorists of conflict perceive them as the scenery upon which struggling for power and privileges takes place.

1.2 The synthesis of social stratification

In Hegelian terms, as Lenski (1993) states, the functionalist thesis, and the radical antithesis have dialectically evolved to give birth to a growing synthesis known as the Theory of Social Stratification. Previous authors such as Max Weber (1987), Pitirim Sorokin (1962), and Vilfredo Pareto (1963) made important contributions in this direction.

Even though the sociologist Weber (1987) did not develop a systematic theory of stratification, he highly contributed through his common studies of many relevant aspects of the distributive system by introducing an analytical focus upon both historic traditions - conservatism and radicalism.

Pitirim Sorokin (1962) greatly contributed by providing an interesting classification of societies in accordance to their "cultural mentality": firstly, those which are ideational and therefore marked by a spiritual reality; secondly, those which are sensate and consequently characterized by a material reality; and finally those which are idealistic and therefore represent a synthesis of the two.

Vilfredo Pareto in *The mind and society* (1963) centered his theory on the concept of elite social classes, which he separated into cunning "foxes" and violent "lions". In his view of society, the power constantly passes from "foxes" to "lions" and vice versa.

An additional main contributor to the previously mentioned synthesis is Stanislaw Ossowski (1963) who did not try to prove what tradition was the right one, but instead focused on demonstrating that both viewpoints were fundamentally true.

As Lenski (1993) indicates, the growing dialectic synthesis simultaneously incorporates elements from both traditions. Regarding crucial assumptions such as the nature of men, the synthesis retains the conservative assumption that men are fundamentally selfish, in opposition to that associated to the radical view, which conceives men in a more optimistic way. In relation, to the nature of society, the synthesis is inclined towards the radical view which perceives society as the scenery where continuous social conflicts take place, rather than that belonging to the conservative tradition which conceives society as a perfect system. Thus, for the synthesis, the nature of human society is that of an imperfect system.

Regarding, the radical assumption that the upholding of social inequality implies the use of instruments of coercion, the synthesis is inclined towards such a view in the case of societies characterized by the generation of substantial economic surplus as in the agricultural and industrial societies. However, in the case

of societies characterized by little or none economic surplus like those based on hunting and horticultural production, the synthesis is rather inclined towards the conservative view which underlined the importance of social consensus. Additionally, with respect to the consequences of social inequalities, the synthesis coincides with the radical view, which in opposition to the lower attention paid by the functionalists, underlines social conflict as the major consequence of inequality.

In relation to the way how privileges and rights are gained, the theorists of conflict emphasized force, fraud, and inheritance, while functionalists underlined hard work, merits, delegation, and other positive values. The synthesis shares both views; however, while the latter mechanisms exercise a great influence to determine the distribution of the means to guarantee the satisfaction of basic needs and the acquisition of subsistence goods, the former are considered determinant to the distribution of economic surpluses. Even though, both views may be simultaneously valid, the synthetic view makes clear that the element of force plays a limited role in the case of less advanced societies in which the economic surplus is limited, and as well in the case of constitutionally advanced societies in which the *stato di diritto* plays a greater role.

Regarding the crucial characteristic of inevitability of social inequality, the synthesis is inclined towards the conservative direction. However, it is relevant to state that even when inequality appears as inevitable due to the nature of men, the degree of social inequality is highly sensitive to both the type of society and technological progress. Finally, concerning the nature of the State and law, the synthesis comprises a mixture of elements from both traditions. On the one side, it recognizes that the State and law frequently operate as instruments of oppression and exploitation, but on the other side as well, it acknowledges that such institutions contribute in favor of the common wealth and at least to avoiding chaos and disorder.

2. NEEDS, POWER AND DISTRIBUTION

The societies classical economists were concerned with usually produce an economic surplus which is distributed in favor of those social classes benefited by rents and profits. Consequently, classical economists explained rents and profits as an appropriation of the economic surplus left over after the payment of wages which are deliberately set at a subsistence level. Thus, for classical economists, the setting of the real wage at a socially conventional subsistence level, and therefore, the appropriation of the social surplus was conceived as the result of a political distributive conflict characterized by the lower bargaining power of the working class.

In accordance to classical economists, the source of the greater capitalist bargaining power is the collective monopoly exercised upon the access to work, and therefore, upon the access to the means of subsistence (food, clothing, and so on). Such a monopoly supported by the institution of private property is protected by the capitalist state, as Smith clearly indicates:

The workmen desire to get as much, the masters to give as little as possible. The former are disposed to combine in order to raise, the latter in order to lower the wages of labor. It is not, however, difficult to foresee which of the two parties must, upon all ordinary occasions, have the advantage in the dispute, and force the other into a compliance with their terms. The masters, being fewer in number, can combine much more easily...can hold out much longer...Masters are always and everywhere in a sort of tacit, but constant and uniform combination, not to raise the wages of labor above their actual rate. To violate this combination is everywhere a most unpopular action, and a sort of reproach to a master among his neighbors and equals. We seldom, indeed hear of this combination, because it is the usual, and one may say, the natural state of things, which nobody ever hears of...Such combinations, however, are frequently resisted by a contrary defensive combination of the workmen; who sometimes too, without any provocation of this kind, combine of their own accord to raise the price of their labor...But whether their combinations be offensive or defensive, they are always abundantly heard of. In order to bring the point to a speedy decision, they have always recourse to the loudest clamor, and sometimes to the most shocking violence and outrage.

They are desperate, and act with the folly and extravagance of desperate men, who must either starve, or frighten their masters into an immediate compliance with their demands. The masters upon these occasions are just as clamorous upon the other side, and never cease to call aloud for the assistance of the civil magistrate, and the rigorous execution of those laws which have been enacted with so much severity against the combinations of servants, laborers, and journeymen. The workmen, accordingly, very seldom derive any advantage from the violence of those tumultuous combinations, which, partly from the interposition of the civil magistrate, partly from the superior steadiness of the masters, partly from the necessity which the greater part of the workmen are under of submitting for the sake of present subsistence, generally end in nothing but the punishment or ruin of the ringleaders (Smith A., 1975: 58–60).

Smith states as well, that the superior bargaining power of the masters -capitalists and landowners– does not mean that wages can be reduced below a level which he labeled as the “lowest consistent with common humanity”. Such a level which was not mean to be understood in mere biological terms, included

therefore, as Ricardo also indicated the satisfaction of certain habits and customs of the people.

Regarding more recent theories of distribution, the marginalist or neoclassical theory developed by authors such as William Stanley Jevons (1888), Karl Menger (1894), Leon Walras (1954), and others associates distribution to the concept of marginal efficiency of the factors of production⁸. The fact that in equilibrium, distribution is determined by the marginal productivity –or social contribution– of each factor of production, clearly implies that society is conceived as a perfect system in which harmonic social relations take place and social disputes over distribution are absent. Thus, the marginalist theory corresponds to a functionalist view of society which from the scientific point of view has explicitly proposed the separation of the field of economics from that of politics.

Returning to the theoretical synthesis resulting from the mixture of conservative and radical elements, it is implicitly clear in Lenski (1993) that, the theory of social stratification and distribution coincides with that proposed by classical economists. Precisely, the theory of social stratification distinguishes among two different laws of distribution, which in turn, describe two apparently contradictory principles: needs, and power. On the one hand, men share the product of their work in order to guarantee the subsistence and continuous productivity of the active working class⁹. On the other hand, men share the social surplus through the instruments and means of power.

Thus, while in the case of those societies characterized by the absence of economic surplus, which are those just technologically able to reproduce themselves, the distribution of the social product is mainly determined by needs,

⁸ The origins of Marginalism come from Ricardo's ([1817], 1996) theory of land-rent, in which the price of land depends on the productivity of the least productive land in cultivation - or marginal land. Thus, *ceteris paribus*, as the demand for agricultural crops increases, the price of land rises as farmers move to less productive land. Some of the major assumptions of the marginalist theory are: homogenous goods and perfect atomistic competition; full and symmetric information; presence of an auctioneer and a stable tatonnement process in order to guarantee that agents cannot influence prices; market completeness for present and future commodities and financial assets as well; neither externalities nor complementarities; no possible interaction between tastes; neither advertising nor fashion; complete and convex preferences and production sets (functions); no transaction costs, and so on.

⁹ Notice, however, that this principle neither necessarily implies the subsistence of the inactive part of the working class, nor the subsistence of the less privileged individuals belonging to societies which are not even able to reproduce themselves - e.g. those without social surplus.

the economic distribution in the case of those societies technologically able to generate a surplus is determined, firstly, in a way that guarantees the subsistence and socio-cultural reproduction of the active working class, and secondly, in a way that divides the remaining surplus through mechanisms of power and privilege.

3. ON RECENT THEORIES OF GOOD SOCIETY AND JUSTICE

Prior to referring to the most recent theories of justice, it may be suitable to study in brief the fundamental Marxist proposals to build a “good society”. Communism was meant to follow two phases. During the first one, the abolishment of private ownership of means of production and exploitation should be conquered, and the distribution principle to be exercised should be that of incentives and meritocracy as suggested by Comte de Saint-Simon (see Marx and Engels, 1998). During the second phase, the principle of distribution meant to reign would be that of the first Christian communities: “from each according to his abilities and to each according to his needs”.

However, even though the abovementioned Marxist proposals may or not be considered “just”, they are potentially fallible from the welfarist point of view, since, on the one hand, as individuals and needs are heterogeneous, so must be their incomes. In turn, this inequality of incomes may lead to excess demands of certain types of commodities and labor, implying necessarily, in such a case, that there will be Pareto inefficiencies. Additionally, if there are excess demands for certain types of commodities and labor, by definition, there will not be full responsiveness or satisfaction of all needs. Additionally, if incomes are set in accordance to needs, the so-called exploitation of the talented may take place¹⁰.

An additional interpretation of Communism as a theory of freedom may be more suitable in terms of what Marx and Engels (1998) anticipated. They considered that freedom in production would necessarily imply self-management and self-realization. Self-management means that workers are the principal who set their own management; and self-realization, that workers are not alienated and,

¹⁰ Two potential solutions may arise. On the one hand, if a “spiritual revolution of human nature” takes place from egoism to altruism, then there would not be excess demands of certain types of commodities and labor because society would consume what planned and individuals would be willing to offer sufficient labor. However, this solution is paradoxical from the Marxist theoretical point of view since men are historically determined by social relations. On the other hand, a second potential solution may arise if no scarcity is assumed, but even this would not be possible since innovation, advertising and marketing continuously create needs whose abundance may not be guaranteed. Thus Communism fails from the welfarist point of view.

therefore, bring in a positive qualitative change in their activities while feeling free at work.

With respect to freedom of consumption, individuals must be free to choose consumption below a budget constraint. Regarding self-governance, this means the state must be controlled by the people, implying the presence of a participatory democratic system. Continuous participation would guarantee self-governance, and democratic central planning would guarantee compatibility with self-management at the factories. However, even these proposals are fallible in the sense that Marx and Engels (1998) never acknowledged that self-management required a market, but instead, they believed Communism would ultimately lead to the substitution of markets.

Regarding more recent theories of justice, the Utilitarian approach can be traced back to ancient Greek philosophers such as Parmenides, but it is best represented by the contributions of authors such as David Hume (1999, 2000), Jeremy Bentham (1988), John Stuart Mill (1998), Arthur Cecil Pigou (1932), and others. The utilitarian cardinal approach assumed comparable, homogenous and marginally decreasing utility functions. Regarding the role of the state, Pigou believed the state should deal with externalities, and as Mill argued, that it should also intervene through redistribution.

However, at the beginning of the century XX, the contribution of Vilfredo Pareto (1963) left clear the impossibility of interpersonal comparability of utilities. The political implications of it were tremendous and lead to the development of the ordinal method after reconsidering the cardinal approach. Notions such as the Frontier of Utilities Possibilities¹¹ and the Two Fundamental Theorems of Welfare¹² were developed in order to withdraw positive and normative considerations¹³. According to the previous theorems, the market allocates resources efficiently, and according to the principle of Pareto, the normative policy implications

¹¹ The *Frontier of Utility Possibilities* refers to the boundary at which all allocations are efficient in the Pareto sense. A Pareto efficient allocation implies that there is no other feasible allocation which makes some individual better off and no individual worse off.

¹² The first *Fundamental theorem of Welfare* states that a competitive equilibrium is always Pareto efficient, and the second *Fundamental theorem of Welfare* states that any Pareto efficient allocation can be reached through a competitive equilibrium.

¹³ See, however, the set of marginalist assumptions under footnote 6.

are that the government needs not intervene since the market brings about the most efficient result¹⁴.

An additional approach is that proposed by Oscar Lange (1956). He conceived a General Equilibrium framework in which there would be public ownership of means of production; workers would freely decide how much to work and consume; prices of factors and commodities would be set by a central planning authority; managers would be state functionaries who would be free to take production decision under a cost-minimizing criteria; and profits would not appear just as in the Walrasian General Equilibrium framework. However, the problems with this approach is that, firstly, managers would lack appropriate incentives as they are paid with a wage, and secondly, that prices may not be correctly fixed in the absence of a tatonnement process.

Regarding the problem of incentives, it is then necessary to assume altruism among managers to guarantee the absence of agency problems, and therefore to guarantee efficiency. With respect to the problem of central planned price setting, the government must know all information regarding preferences and production functions in order to guarantee efficient pricing. An interesting aspect of both criticisms is that they simultaneously apply in the case of the Walrasian General Equilibrium framework. Thus, both the Centrally-Planned General Equilibrium framework the Walrasian General Equilibrium framework suffer of agency –incentive– problems and of potentially inefficient pricing¹⁵.

¹⁴ Some other marginalists have argued, however, under the assumption of a stable tatonnement process that by using lump-sum taxes and without altering the market mechanism, it would possible to move the economy to a superior allocation. However, even this is fallible because it would necessarily imply that the government must know all information about the production and utility functions of all individuals just like a central planner, and therefore, that there would be no need for a market. Notice, as well, that nothing is said about distribution, since competitive full-employment equilibrium, from the utopic marginalist viewpoint, should bring about input remunerations in accordance to the social marginal contribution of each factor of production.

¹⁵ Precisely, the critiques of Friedrich August von Hayek (1945) regarding the knowledge by the government of all local information regarding production functions and preferences of all individuals can be simultaneously used against the case of the market or capitalist-based Walrasian General Equilibrium. Thus, Friedrich August von Hayek's arguments in favor of the market-based structure were linked to the benefits of the markets in dealing with information rather than the benefits of the market in terms of efficiency. The main caveat in this respect is that, even though information asymmetries may be present in the market economy, it is still good for gathering information at the micro level, while at the macro level, the state is necessary for gathering and disclosing information ignored by individuals.

An additional attempt to develop a theory of a good society based on Welfarism is that of Paul A. Samuelson (1983). He intended to derive a well-behaved Social Welfare Function from a rational democratic process. However, as the famous Arrow's (1951) Impossibility Theorem demonstrated, it is impossible to derive a fair, complete and transitive social ordering if it is assumed that individuals' preferences are as well complete and transitive¹⁶. Thus, Arrow proved the impossibility of a rational democracy under an ordinalist approach, and therefore, proved the defeat of ordinalism from the welfarist viewpoint. Precisely, Arrow showed that incomplete ordering may occur under unanimity, and intransitivity (irrationality) may take place under majority ruling.

After the defeat of ordinalism, the reintroduction of utilitarianism and of the ideas of utility comparability returned, assuming in some cases consequentialism, and process-orientation in others. Regarding consequentialist theories of justice, two major assumptions needed being taken and justified, additivity and separability with respect to other individual's welfare or utility function. The neo-utilitarian approach of Fleming which furtherly assumed anonymity or zero privileges, and therefore, equal weighting of utility functions in some cases, and meritocratic weighting in others, represents a good example.

However, probably the main contributions on the theory of Justice are those offered by John Harsanyi (2001), and John Rawls (1971). They argued that under the assumption of self-interest, rational and well-informed individuals, there is a potential bias of ethical principals towards social positions. Thus, moral preferences must be introduced independent of social positions through metaphysical experiments such as the "veil of ignorance". In such a framework a general preference in favor of ex-ante equality would hold as a result of the self-interest and risk-averse behavior of individuals. Thus, behind the "veil of ignorance" people must know the possible states of the world and shapes of the utility functions.

Rawls (1971) specifies that the parties in the so-called original position are concerned only with the citizens' share of what he labels as primary goods, which include: freedom, subsistence, self-respect and other basic rights as well as economic and social advantages. A "maximum" choice in such a stage must guarantee making the individual decision that produces the highest payoff for the worst outcome. Thus, Rawls argues that the representative parties in the so-called original position would choose two principles of justice: (i) the liberty principle, which assures an adequate set of basic liberties (like freedom of speech and conscience)

¹⁶ Specifically, Arrow assumed: ethical individualism, consequentialism, welfarism, ordinalism, social Pareto indifference, universal domain, independence from irrelevant alternatives, non-dictatorship, unanimity, majority ruling, and so on.

to all citizens, and (ii) the difference principle, which requires that social and economic inequalities be arranged so as to benefit the least advantaged group in society. The fact that inequalities must at least lead to making the least advantaged better off in order to be considered just, is what makes of Rawl's theory the most egalitarian one ever produced by an economist¹⁷.

Finally, regarding process-oriented approaches to the theory of justice, the most relevant approach is that proposed by the ultra-conservative liberal Robert Nozick (1974). He states that justice does not depend on the actual distribution of income or wealth, but instead on the way or process which leads to such a distribution. If there are differences in income and wealth distribution due to abilities, capabilities and other reasons related to talents, such differences are legitimate. While regressive taxation is allowed, progressive taxation based on capacities is considered in terms of Nozick (1974) as an illegitimate expropriation. To Nozick, each person has the right to receive what he produces. Regarding, the so-called justice in appropriation, Nozick states that everyone is free to appropriate whatever is not owned by anyone else, if and only if this does not affect the welfare of other individuals. With respect to the so-called justice in transfer, Nozick argues that a transfer is just if it is accepted by the individuals.

4. THE CURRENT STATE OF AFFAIRS: TECHNOLOGY, FINANCIAL SPECULATION, ABSOLUTE IMPOVERISHMENT AND DISTRIBUTION

While it may be stated that both industrial revolutions and most previous eras of technological innovations have had the net *aggregate* effect of expanding the social product, and of creating new jobs and opportunities, the same cannot be said of the present information-based technological revolution. Electronics, robotics, and information-based technologies are being recently associated not only with the common destruction of jobs at the micro level, but as well with the net aggregate effect of creating higher global unemployment and social inequality.

During the last two decades profound changes have been occurring in our society as a result of the introduction of new technologies based on the microchip. This extraordinary innovation has increased the range of electronic processing to several economic applications in industry, office equipment, recreation, medicine, consumer goods and services. As society changes from an industrial to an information base, the major source of new jobs are found in the office, in service areas, in the financial sector, and in the government. Consequently, a reduction in the labor force in the area of production and manufactu-

¹⁷ Thus, in egalitarian terms, Rawl's Social Welfare Function is superior to the Utilitarian Social Welfare Function and even to the Bernoulli-Nash Social Welfare Function.

ring, and an increase in the areas of service and information are being experienced.

Additionally, as a result of the recent technological changes, the relatively open social system at work is being gradually replaced by a rigid and highly structured environment in which the performance of workers at their computers is being closely monitored. Ironically, the causes of unemployment are to be found in competition, in the system of distribution of corporate and personal incomes, and in the way in which power and privileges are concentrated in society. It is, then, the rules of capitalism which can be blamed for unemployment rather than technology itself. The constant pressure to increase productivity, in order to meet competition, results in a higher investment in capital equipment based on robotics, electronics and information-based technologies which due to their greater monitoring power and demand for highly-skilled labor results in a high unskilled labor unemployment, that increases social inequality by making the rich richer, the workers jobless, and the poor poorer.

Nevertheless, it is not simply the force of competition which, due to its tendency towards oligopolies rather than to more atomistic forms, is generating unemployment and therefore a lower bargaining power of the working class; it is as well the development of financial speculative activities which is reinforcing it to a greater depth. As capitalist production is becoming more efficient within the growing information based society, the problem of underconsumption and overproduction previously indicated by Karl Marx (1981), John Maynard Keynes (1936) and others, is as well becoming highly common. Thus, the social surplus remaining after the productive and distributive cycles has generated a tendency towards price deflation and financial speculation.

Precisely, as John Eatwell and Lance Taylor (2001) indicate after the collapse of the Bretton Woods agreements and the dismantle of the set of economic institutions associated with the so-called Golden Age of Capitalism, the privatization of the foreign exchange risk, which was previously managed and coordinated by national states, lead to continuous demands for a greater international capital mobility and to the development of several financial instruments for hedging and investment. However, the expansion of capital markets has mainly lead to growing secondary markets which regularly operate under high levels of risky leverage. The concentration of savings in a few reserve currencies, the increase of daily foreign exchange transactions to among 5 to 10 times the annual global economic product, and the misuse of resources coming from higher productivity associated with the technological progress of the information-based society has served for the purpose of increasing social inequality and absolute impoverishment rather than for generating higher employment and better distribution.

An additional argument in support of the previous ideas is the presence of great complementarities among the institutions of social inequality and finance. At least two different mechanisms deserve being mentioned. On the one hand, financial intermediation requires tangible collaterals which are clearly not owned by most people belonging to the working and poorer classes, or by those citizens belonging to poorer countries. On the other hand, in order to guarantee loans repayment, or liquidability in case of failure, financial institutions reinforce policies which enhance greater capital investment based on robotics, electronics and information-based technologies which by reducing variable costs and the input requirements of labor, while simultaneously increasing effective labor extraction and monitoring capabilities, tend to exacerbate the problems of unemployment and social inequality.

Thus, as global financial speculative activities have become larger, and sometimes less risky and more profitable than real productive ones; and as information-based technologies, through the use labor-monitoring techniques, have allowed for extracting more, and more effectively, labor from workers, and therefore, have become more and more productive, the evident consequence of unemployment and overproduction has led to greater levels of social inequality. However, it must be noticed that the present problem of current societies goes beyond that explained by many functionalists and theorists of conflict. The level of global impoverishment is not only evident in relative terms, as presupposed by Karl Marx (1981) and several other authors, rather it has reached an absolute level of inhumanity, and social disconcert.

The problem of social inequality and absolute impoverishment goes beyond limits not profoundly studied by philosophers of the XIX century. Industrial production is expected to reach a point in time in which, roughly speaking, almost no labor will be needed. The concern will then not be, if the institution of wages is unjust or not, or if it is socially convened so as to guarantee the physical, biological, economic and cultural reproduction of the working class, but instead if it will exist or not anymore, and if not, what new distributive and political institution –of needs and power– could be able to guarantee not only social egalitarianism, but productive efficiency and technological progress as well.

Whether or not under a regime of freedom of choice the new information-based society will be able to transform the institutions of capitalism so as to couple technological progress with social equality, is yet to be seen. What may be clear for many philosophers of both traditions, the conservative and radical ones, is that it is necessary to promote the development of institutions aiming towards the internalization of concerns for others, and for the global system as a whole, rather than just for a reduced nucleus involving only the closest ones (e.g. family and friends).

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