

Saint-Simon and Henry Ford:

The Prototype of Industrialism and Its Transformation

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Abstract

Saint-Simon (1760–1825) made a blueprint of the coming age in which industrialists, such as manufacturers and merchants, etc. took temporal authority, and scientists led the public spiritually. Saint-Simon shaped a theoretical prototype of industrial society. Henry Ford (1863–1947), being famous as the originator of the large-scale continuous production method, because of his unique thinking of “business as public service” and “wage motive” management made it appropriate to call him the reformer of industrialism. The fact that some schools of economics named the social system after World War II “Fordism” testifies to this circumstance. We demonstrate: (1) Saint-Simon pointed out, for the first time, the capacity of administration as a unique feature of adventurers (English translation of “entrepreneurs”); (2) Whereas Saint-Simon had expected that scientists should lead the public in terms of morality, they were not doing so in the time of Henry Ford; (3) Present industrialism is considerably different from both Saint-Simon’s prototype and Henry Ford’s model of it.

Key Words: Saint-Simon, Henry Ford, Social thinking, Management thinking

I. Purpose of this paper

1. Saint-Simon (Claude Henri de Rouvroy, Comte de Saint-Simon 1760–1825) was a prophet-like architect of industrialism. By the word “industrialism”, we mean a society mainly constituted of systematically organized labor. We do not use the word “capitalism” because of its strong Marxian connotation. Saint-Simon is sometimes called one of the “Utopian Socialists”. He was least of all a utopian; he kept an acute sense of reality through his life. Saint-Simon was an organizer of a coming age; he wanted to create a new social order, because he lived in anarchy. Saint-Simon was not a “socialist” in the Marxian sense; he tried to unite individual interest with that of society, because interests had become indispensable for the progress and wealth of society. Ruling was not effective any more. Unlike Hegel, Saint-Simon put “society” above “nation”; at the same time he regarded economy and politics as elements that constituted the whole society. Therefore it is appropriate that we should call him a social thinker.

2. Henry Ford (1863–1947) was a successful business leader, who started his career as a mechanic apprentice. He was not a scholar but a practical business man. His thoughts, or, at least, what he co-wrote, (we know that evidence has been found that Henry Ford covered his past deeds and facts with comfortable words and hypocritical logic), made great impact on World’s industrialism, as well as thinking on society between two World Wars. He found consumers in his employees, and he raised wages to enable them to buy the cars they made.

With regard to competition, Ford Motors was finally defeated by General Motors and Henry Ford died in 1947. However, it might be justifiable to say that Henry Ford opened the door of the second stage of industrialism, because people in the U. S. establishment brought his idea and methods into effect on a larger scale in an institutional manner. The Regulation School of economics named this socio-economic system in western advanced nations after Henry Ford, calling it “Fordism”.

3. We now live in the era of “Post-Fordism”, however, we have not overcome the issues that those two social thinkers endeavored to solve, i.e. the extermination of the destitute. Furthermore, as a “global economy” flourishes, problems such as the gap between the rich and the poor have been exacerbating in each nation and all over the world. Based on this recognition, we will attempt to demonstrate and clarify the following three themes succinctly.

- 1) Saint-Simon represented administration as a unique capacity of the “leaders of industrialists” and thought it applicable to promote the public interest as early as the first quarter of the 18th century, long before business administration became popularized.
- 2) Both Saint-Simon and Henry Ford asserted that in order to organize and maintain industrialism as a social system, morality was indispensable along with a market mechanism. In relation to this matter, Saint-Simon claimed that it was scientists’ role to spread a new morality and the corresponding newly-found scientific truths, among the public. How, in reality, had scientists behaved in the industrial systems of advanced nations during the time between Saint-Simon and Henry Ford.?
- 3) From both Saint-Simon and Henry Ford’s point of view, what are the characteristics of present industrial society, and how are we dealing with the issues they attempted to resolve?

II. Industrialist as administrator

1. Adam Smith (1723–1790) divided society into three orders, “those who live by rent”, “those who live by wages”, and “those who live by profit”¹. With regard to the third order, he wrote ‘Merchants and master manufacturers are, in this order, the two classes of people who commonly employ the largest capitals, and who by their wealth draw to themselves the greatest share of the public consideration. ... As their thoughts, however, are commonly exercised rather about the interest of their own particular branch of business, than about that of the society, their judgment, even when given with the greatest candour (which it has not been upon every occasion) is much more to be depended upon with regard to the latter. Their superiority over the country gentleman is not so much in their knowledge of the public interest, as in their having a better knowledge of their own interest than he has of his.’² Adam Smith was cautious about the habit and behavior of merchants and manufacturers, because their interest ran counter with that of society in general. ‘The rate of the profit does not rise with the prosperity and fall with the declension of the society.’³ Moreover, the third order tends to “narrow the competition”⁴ in order to take advantage, by levying, taxation, bid rigging etc, Adam Smith thought.

Adam Smith recognized the “labour of inspection and direction”⁵ of those of the third order, however, he called it “supposed labour”⁶ — which means, probably, that they disguised their profit as a legitimate wage of their labour. Adam Smith did not acknowledge inspection and direction as independent art or the capacity of merchants and master manufacturers; instead, he wrote ‘almost the whole labour of this kind is committed to some principal

clerks’⁷, even then, ‘the owner of this capital, though he is thus discharged of almost all labour, still expects that his profits should bear a regular proportion to his capital.’⁸

Adam Smith, for the first time, defined the order of merchants and master manufacturers as one of three social orders, whose function, fundamentally, was to loan or advance stock and fund to some trades and, in return, receive profits; in some cases they organized labourers by themselves in manufacturing or trades, however, this initiative should be considered not so much as necessary but rather as contingent. Furthermore, it is important that Adam Smith thought that their capacity was useful only in their business affairs; and he also thought that they could become a hazardous factor to the interest of society unless they were properly regulated. In addition, it is noticeable that Adam Smith defined the relation between masters and workmen as theoretically, antagonistic.⁹

2. ‘Today, the ablest man in politics should be the man, who is the ablest in the capacity of administration, who can best assign profits of various kind of producers, who can invigorate productions best, lastly, who can transfer authority from the hands of idle fellows into those of workers as quickly as possible. This kind of man should lead public affairs. France has become one large factory. The nation of France has become one big workshop. This general factory ought to be administrated in the same way as each factory is being administrated. By the way, the most important task in factories is, first of all, to lay down the process of productions; then next, to unite the profit of adventurers with that of workers, on the one hand, and to unite the profit of adventurers with that of consumers, on the other hand.’¹⁰

The objective of Saint-Simon’s works was to end the Revolution, which had lasted thirty years, and restore social order. We assume he could not escape from the dreadful memories of proletarian uprisings which had taken place many times in these years. Anarchy and Despotism were the situations that France had to overcome. To this end, Saint-Simon admonished industrialists such as agriculturists, manufacturers, merchants, bankers, scholars (especially scientists) and artists to take the authority from nobles, clergies, landlords, militants, lawyers, and men of metaphysics. Saint-Simon deducted from past history that the industrial-scientific society was the next phase after the feudal-ecclesiastical society; he concluded that the Revolution would not end until this transformation was completed. He wrote concrete plans to transform social systems and sent them to the Bourbon King, to industrialists, and to scientists as well as labourers in order to bring them into effect. In so doing, presumably, he came across the idea of “adventurer”, in French “entrepreneur”, of J. B. Say¹¹ (1767–1832).

J. B. Say wrote, ‘It is commonly requisite for the adventurer himself to provide the necessary funds. Not that he must be already rich; for he may work upon borrowed capital; but he must at least be solvent, and have the reputation of intelligence, prudence, probity, and regularity; and must be able by the nature of his connexions [*sic*], to procure the loan of capital he may happen himself not to possess. . . . In the second place, this kind of labour requires a combination of moral qualities that are not often found together. Judgment, perseverance, and a knowledge of the world, as well as of business. He is called upon to estimate, with tolerable accuracy, the importance of the specific product, the probable amount of the demand, and the means of its production: at one time he must employ a great number of hands; at another, buy or order the raw material, collect labourers, find consumers, and give at all times a rigid attention to order and economy; in a word, he must possess the art of superintendence and administration. He must have a ready knack of calculation, to compare the charges of production with the probable value of the product when completed and brought to market. In the course of such complex operations, there are abundance of obstacles to be surmounted, of anxieties to be repressed, of misfortunes to be repaired, and of expedients to

be devised. . . . Thus, the requisite capacity and talent limit the number of competitors for the business of adventurers.’¹²

3. Unlike Adam Smith, Saint-Simon distinguished decidedly the function of those who administrate enterprises from that of those who invest capital to enterprises. Furthermore, Saint-Simon appraised the capacity of leaders of industrialists (or “adventurers”) so highly that the public affairs should be planned and approved by their representatives, who should play the role as part-timers. Saint-Simon referred many times to the idea that the public wanted to be governed as cheaply and as little as possible.

Moreover, Saint-Simon saw no fundamental confrontation of interests between adventurers and labourers, rather, he depicted adventurers as leaders of labourers and said that the former would provide the latter “with the means of eating chicken every Sunday.”¹³ Presumably this discourse was more normative than descriptive; Saint-Simon must have thought that poor people had to be provided with jobs, otherwise they would turn into a mob, and since only adventurers were able to create jobs, adventurers needed labourers, just as the latter needed the former.

Finally, according to Saint-Simon, bankers are “the general agents of industries”¹⁴. Saint-Simon did not elaborate what this meant. However, judging from the context, it means that bankers place themselves at the nodes of networks of industrialists, therefore, not only capital but also information naturally flows in their hands; this enables them to distribute capital in a way that the general public as well as they themselves become well off. ‘Bankers are destined to lead the political movement of industrialists.’¹⁵ Saint-Simon wrote. We can see clearly the different functions between adventurers and bankers, or employers and capitalists in Saint-Simon’s thought; even if these two functions are demonstrated in one individual, Saint-Simon would tell us we should not mix them up.

4. About one hundred years from then, Henry Ford, looking back the period before the First World War, wrote ‘In the violent period of the union labour movement, the employer was always referred to as the capitalist. The whole trouble was that the employer was not a capitalist, but was under the thumb of capitalists. . . . The manufacturer, standing between hostile labour and rapacious capital, had a hard time getting anything done. Pressed from above for interest and dividends, pushed from below to grant more money for less work, he had small chance to give service [*to the public*] (addition by author). And all the time he had to bear the abuse that was being heaped upon the capitalist.’¹⁶ With regard to the correlation among adventurers, labourers, and bankers, at least until 1910s, no group acted as Saint-Simon had planned they should.

III. Role of scientists in industrialism

1. Morality was the principle of social union for Saint-Simon as well as other thinkers in the age of enlightenment. If morality deteriorated, a society would necessarily break into pieces, and turn back to the barbarous state as Tomas Hobbs postulated. In this context, we can understand the following discourse of Saint-Simon. ‘I believe the general goal of morality is physically the improvement of human material condition, and spiritually the perfection of human intelligence. Therefore it is necessary to make morality positive [*science*] (addition by author) that moralists should have a clear idea by which they can realize people’s happiness.’¹⁷ ‘The objective of morality is to organize humans into society so as to employ each

man's physical and spiritual power in a way most advantageous to himself as well as his compatriots. Politics is nothing other than applying this morality to public affairs.’¹⁸

Why did humans make society? They would have been freer and lived easier, if they had not organized themselves into a society. To answer this question, in the time of Saint-Simon there were two ways: one was a society based on the social contract which was made to overcome the anti-social nature of humans, such as egoism and violence; the other was a society that had naturally and tacitly developed based on the natural attributes of humans such as sentiment and self-love. Adam Smith established the latter idea in his “Theory of Moral Sentiments”. Adam Smith stated that moral sentiments existed in the heart of every man; because he unconsciously created general rules of conduct by observing other people; some conducts made him feel antipathy, and when he noticed that everyone around him felt the same way, he concluded that he would never do such conduct; conversely, some conduct made him feel approbation, and when he noticed that everyone around him felt in the same way, he came to have the ambition to do similar conduct. Adam Smith called this capacity of humans to feel the feelings of others “sympathy”; he claimed sympathy naturally and gradually built the general rule of conducts into the hearts of men. Adam Smith probably analyzed the phenomena of a political-economy based on this theory of moral sentiments; in opposition to the popular belief, he did not entrust everything to the “invisible hand”, because the market does not exist without society; and society does not exist without general rules of conduct; in turn, if no individual shares any morality at all, that is, if there is no sympathy among individuals who constitutes a market, its mechanism would not work at all.

Saint-Simon, belonging rather to the school of “social contract”, thought more deductively than Adam Smith. Saint-Simon compared the spiritual circumstance of his times with those of the birth of Christianity. ‘The era most similar to the present day was that in which the belief of the most flourishing group of humans transferred from polytheism to monotheism by the establishment of Christianity. . . . By the way, in this commemorative moral revolution, we can distinguish very clearly the two actions that I mentioned before. That is to say, on the one hand, the Christian doctrines were systematically organized, and on the other, these doctrines were preached and established by people from all social classes — even by the people whose individual interests running counter to Christianity. The same will happen on industrial doctrines. Only positive scientists will cooperate in creating these doctrines. However, the most zealous missionaries will come from all social classes, including idle proprietors, lawyers, militarists, even from loyal families.’¹⁹

It is interesting, from our point of view, that Saint-Simon allotted scientists the work of creating new doctrines of morality. Saint-Simon did not overlook the function of science and technology for the increase of public wealth, such as making transportation networks, mechanizing production processes, and irrigation, etc. However, Saint-Simon regarded the task of creating new morale science as more important than that of providing new means of creating wealth. This came from his positive historical philosophy. Saint-Simon divided social power structure into two parts: one was a secular power structure which had been ruled by feudal lords and would be relayed by agriculturalists, manufacturers, merchants, and bankers; the other was a spiritual power structure which, having been dominated by the clergy, would be led by scientists. As Christianity had provided the public with the knowledge that enabled them to interpret everything in the universe, a new general theory, corresponding to the development of sciences, was acutely needed to stop further dissolution of the society, Saint-Simon thought. Adam Smith and Saint-Simon shared the idea that society was the ground on which systems of economy, laws, and politics weaved their networks; therefore, society needed its own foundation other than these systems. This foundation should be morality or the general

value system which could be a larger structure than nation or race, such as the ancient Catholic Church networks.

The last writing of Saint-Simon was named “New Christianity”, which claimed that the primary function of religion was to establish morality in a society. Saint-Simon integrated the principles of Christianity into one axiom: *All men should treat each other like brothers*; he insisted that this core doctrine was still valid to his times, and proposed a guideline: *The whole of society should work to improve the moral and physical existence of the poorest class; it should organize itself in the way most suited to allow it to achieve this great end*. Saint-Simon allegedly gave up the plan to create an absolutely new general theory which should substitute for Christianity. Saint-Simon wrote, “Since the dissolution of the spiritual power in Europe as a result of Luther’s revolt, that is, since the fifteenth century, the human spirit has detached itself from universal ideas: it has indulged itself in specialization; it has been engaged in the analysis of particular facts, and the private interests of the different social classes; it has striven to define the secondary principles which might serve as a basis for the different branches of knowledge; and, during this second period, the opinion has become established that considerations of general facts, of general principles and of the general interests of the human race were only vague and metaphysical, and could usefully contribute nothing to the progress of enlightenment and to the improvement of civilization. . . . Great harm was done to society by the state of neglect in which, since the fifteenth century, work on the study of general facts, general principles and general interests was left. This neglect gave rise to the egoism which came to dominate all classes and individuals. . . . It is to this egoism that we must attribute the political sickness of our age; a sickness which affects all those who do useful work in society.”²⁰

2. According to Chikara Sasaki,²¹ science became a professional vocation for the first time after the Revolution in France. The “grandes écoles” (technical academy), such as Ecole Polytechnique, which was founded in 1794 and departments of science in universities, provided scientists with full-time jobs and sufficient fees; at the same time these institutions offered orthodox science educations to breed future scientists. Their social status was lifted by the Academy and decorations. Presently, this professionalization of science was transferred to the neighboring country, that is, Germany. In Germany they reinforced the education system of teachers; rapid specialization took place in colleges and universities. In some academic domains, especially in organic chemistry, universities united directly with industry to promote national wealth. However, the purification of science was advocated broadly in the country: that is, the goal of science was changed from public interest to inquiry for the sake of inquiry or completion of human reason; commercialization of the result of science research came to be regarded as “commercialism” in which scientists should not take part.

The real reciprocal dependence between science and industry had been not in the least simple. We cannot think straightforwardly that scientific discoveries were applied to industry as technologies. Technologies, socio-economic situations, preceding technologies, and science, these four factors had reciprocally influenced among each other. In the so-called Industrial Revolution in England in the end of 18th century, the technology of steam engines and those of spinning machines and looms reacted mutually, and resulted in the creations of new technologies such as inorganic chemistry, machine tools, and steam locomotives. The inventors of these things were English artisans. For instance James Watt, a caretaker of college apparatus, through communication with scientists invented his steam engine. In the 19th century, inventions or major improvements in organic science, of the internal combustion engine, and of electricity and steel production were achieved either in laboratories of German

universities or by the hands of amateur inventors of other countries.

3. Henry Ford disliked college-graduate engineers; he wrote, ‘... they (wise people) are so wise and practical that they always know to a dot just why something cannot be done; they always know the limitations. That is why I never employ an expert in full bloom.’²² In this satirical tone of a very successful self-made engineer, we can see how scientists worked and where they were heading. Scientists did not fulfill the role that Saint-Simon had expected. They indulged in their specialty further, and they thought as a matter of course that morality had nothing to do with them. Social scientists, among whom there might have been Saint-Simon’s disciples’ disciples, were trying to be more empirical and descriptive, therefore they opposed judging the value of their research objects; simply put, they left the issue of morality to churches and elementary education.

In 1889 Andrew Carnegie (1835–1919) wrote, ‘The price which society pays for the law of competition ... is also great; but the advantages of this law are also greater still than its cost — for it is to this law that we owe our wonderful material development, which brings improved conditions in its train. But, whether the law be benign or not, we must say of it, as we say of the change in the conditions of men to which we have referred: It is here; we cannot evade it; no substitutes for it have been found; and while the law may be sometimes hard for the individual, it is best for the race because it insures the survival of the fittest in every department. We accept and welcome, therefore, as conditions to which we must accommodate ourselves, great inequality of environment; the concentration of business, industrial and commercial, in the hands of a few; and the law of competition between these, as being not only beneficial, but essential to the future progress of the race. Having accepted these, it follows that there must be great scope for the exercise of special ability in the merchant and in the manufacturer who has to conduct affairs upon a great scale. That this talent for organization and management is rare among men is proved by the fact that it invariably secures enormous rewards for its possessor, no matter where or under what laws or conditions.’²³ During the period between the end of the Civil War and 1890, when the Sherman Act was approved, the thought of Individualism was established in the United States. This thought, consisting of Social Darwinism, Modern Economics, and Utilitarianism, was exploited by the strong: people who were rich, who had powers, etc., to justify their exclusive interests and to refute Communism and Anarchism, which was also in vogue in this era. Compared with the thought of Saint-Simon, that of Andrew Carnegie also stressed the capability of administration, or in his word, “the talent of organization and management”. However, in the former case, morality, especially the brotherhood among social members, was considered to be indispensable in order to provide jobs to the poor and to support the disabled; in the latter case, the enormous gap between the rich and the poor was justified by the principle of competition. It was thought that the fittest should survive and others should be extinguished for the progress of the human race, analogizing political and economic competition to the natural selection in the history of creatures; and at the same time, the conception of human races was emphasized, sometimes with blatant discrimination. That is to say, morality in Saint-Simon’s sense was nothing but an obstacle for Individualism; because, according to Individualism, society is but an aggregate of individuals; there is no room for ideas such as society as an organic whole, or social system. If there is the conception of morality in Individualism, it would reside between an individual human and God. And in fact, as Max Weber said, many Protestants in the U. S. thought of morality as a matter of “I and God”.

Henry Ford grew to a full-fledged mechanic soaked up with this spirit of the time. However, he experienced the swing back of Individualism from the beginning of the 1890s to

World War II, the time of Progressivism. Progressivism was a movement, the objectives of which were fair competition, equality of opportunity, and welfare of poor workers. To attain those, the governmental authorities, both federal and state, were strengthened with regard to the superintendence of private enterprises. People in this movement contended that governmental educational and ethical supports were critical for the advancement of human being; the laissez-faire policy led to unstable political conditions and an immoral society; because unless private enterprises were overseen properly by the governments, concentration of capital would advance without limitation and fair competition would be stopped. Scandals such as briberies would increase; in addition, industrial strivings, already violent enough, would rage on even more. Furthermore it was stressed that public interest equaled national interest. Progressivism supported both theoretically and politically the presidency of Theodore Roosevelt and his reform of business institutions.

Henry Ford did not doubt the necessity of morality, not only for management but also society as a whole. However, he did not need government's interference in business as well as to morality. He wrote, 'The old idea of business, that it consists of one man getting the better of another, is no longer acknowledged as businesslike even by those who practice it. The American idea of business is based on economic science and social morality — that is, it recognized that all economic activity is under the check of natural law, and that no activity of man so continuously affects the well-being of others as does the daily activity of business. We do not have to ask the public regulation of business. The public has always regulated business.'²⁴ And for Henry Ford, the most sacred thing is "work", 'Thinking men know that work is the salvation of the race, morally, physically, socially. Work does more than get us our living: it gets us our life.'²⁵ The point where Henry Ford stood was the boundary between Individualism and Industrialism; he wrote that he devoted business to the service of the whole people; however he rejected altruism and charity for they clogged progress of the human race. Getting something for nothing was the worst disgrace for an individual, because of the holy right and obligation of work. Henry Ford experimentally made bedridden men work in his factory in order to prove that anybody could find tasks they could do among the sufficiently subdivided works in his production line. 'There is a most generous disposition to regard all of these people who are physically incapacitated for labour as a charge on society and to support them by charity. There are cases where I imagine that the support must be by charity — as, for instance, an idiot. But those cases are extraordinarily rare, ...'²⁶ Regarding his famous five dollars a day wage plan, there were conditions for the private lives of his employees: they had to be (1) Married men living with and taking good care of their families; (2) Single men over twenty-two years of age who are of proved thrifty habits; (3) Young men under twenty-two years of age, and women who are the sole support of some next of kin; because 'The man with the larger amount of money has larger opportunity to make a fool of himself.'²⁷ He had fifty men of the Social Department investigate employees' private lives so as to judge who met the requisite standards.

It is said that a large portion of his employees were immigrants who hardly spoke English. We assume American workers walked off the workshop, for their tasks were too monotonous and must have kept pace with machines. A nearly 400% turnover rate in 1914 suggests this fact. Henry Ford had to educate immigrant workers so as to organize them as a work force suitable to the "large scale uninterrupted production". Whereas Saint-Simon thought that morality should prevent the poor from being agitated and becoming rioters, Henry Ford demanded his employees hold particular standards of life in order to avoid the breakdown of productivity. What were scientists doing? Why did not they organize a new morality or a new general theory which could interpret the universe and human history? Darwinism

could have been one of these general theories; however, it was purposely simplified and analogously applied to society, and as a result, in opposition to Saint-Simon's intention, it helped in the disorganization of society, and justified the trend toward egoism. In addition, through two scientific disciplines such as Modern Economics and Marxian Economics, morality was proclaimed to be a past relic; and society was dissolved into atomic 'homo economics' in the case of former and into antagonizing "classes" in the latter. If we borrow Saint-Simon's term, scientists had not been "organizational" but just "critical" against morality, as encyclopedists were against Christianity in 18th century. Henry Ford wrote, 'Only now are we beginning to realize that any study which has not as its end the welfare of the common man is not worthwhile. Take science, philosophy, and religion. It is idle to say that one deals with reality more than the other. They all deal with realities. Facts are not all on one plane. Science is not limitedly material. Religion is not limitedly spiritual. Matter and spirit are terms we use to make distinctions which perhaps do not exist. Yet science and philosophy entirely, and religion to a degree, have largely kept aloof from any materialism which had to do with anything so commonplace as bread and butter.'²⁸

Henry Ford attempted to get rid of poverty by creating jobs through large-scale production and subdivision of labors. He believed power and machinery gave opportunity to the human race for a way out from poverty by turning the following cycle in the scale of society as a whole: subdivision of works — multiplying job offerings - increase of purchasing power — larger scale of continuous production — cost down of productions — investment in power and machinery — increase of wages — further subdivision of works...; the flying wheel of this cycle, he thought, was the morality of management and work. His plan was not realized before the Second World War, for there were not enough people who agreed with his plan to cause the cycle to turn around in large enough scale to transform society; as a result, the Great Depression swallowed Henry Ford as well as the American public; the strategy of price failed completely in this economic catastrophe.

IV. Industrialism at present

1. After the Second World War, western developed countries institutionalized Henry Ford's economic growth plan with the compromise between employers and labor unions. As opposed to Henry Ford's preference, governments' authorities were strengthened because they thought they could not take a chance to fail, relying on a public morality which was thought to be uncertain and vague.

However, poverty still exists even now in the 21st century. Conversely, the problem of destitution has spread even into advanced nations and has intensified since the 1970s, at the time when we began to hear the word "Post Industrial States". Production of the world has increased, as statistics tells us, but the fundamental problem of society, against which Saint-Simon and Henry Ford struggled, has stayed unsolved. Then why?

We should take a look at Henry Ford's idea of a "universal car"; it has been either criticized as a proof of his stubbornness or the past remnant that symbolizes his lack of marketing perception; however, we think that this idea and its failure means something more than this.

Henry Ford referred to "a universal car" as "a car that would meet the wants of the multitudes."²⁹ He enumerated the attributes of the car: '(1) Quality in material to give service in use; (2) Simplicity in operation; (3) Power in sufficient quantity; (4) Absolute reliability; (5) Lightness; (6) Control; (7) Light expense of operation. ... The parts could be made so

cheaply that it would be less expensive to buy new ones than to have old ones repaired. . . . The less complex an article, the easier it is to make, the cheaper it may be sold, and therefore the greater number may be sold. . . . It is strange how, just as soon as an article becomes successful, somebody starts to think that it would be more successful if only it were different. There is a tendency to keep monkeying with style and to spoil a good thing by changing it. . . . They listened to the 5 per cent. [*of customers*] (added by author), the special customers who could say what they wanted, and forgot all about the 95 per cent. who just bought without making any fuss. . . . If there is any defect in service then that must be instantly and rigorously investigated, but when the suggestion is only as to style, one has to make sure whether it is not merely a personal whim that is being voiced.³⁰ Therefore he announced that they were going to build only one model.

Given that there was one universal product in each market category, in other words, suppliers had only one product standard, then, the competition in all markets would be that of cost and price. Henry Ford wrote that “human need” was “established”; and Adam Smith defined “value in use” as the utility of some particular object. Adam Smith did not elaborate the principle that regulates the “value in use”, probably because he thought it as already having been established. However, the door to the third stage of industrialism was opened by the “adventurers” who discovered the “human need” or “value in use” can be transformed, or rather administrated, by fluttering, threatening, exaggerating, gossiping, etc. in the communications with their customers. In fact, Alfred Sloan Jr. defeated Ford’s Model “T”, by “monkeying” with the design of their product, presenting an imaginary order of the value of their products, and making customers pay in installments. If customers had had no choice but the Model “T”, they would not have bought a second car, because the new parts were available at a cheaper price than having them repaired. If GM had not lined up their product and had not begun annual model-changing, customers would not have accepted its proposal. That is to say, consumers were organized by the message or communication of producers. While Henry Ford organized workers in order to produce cars in “large scale continuous production”, Alfred Sloan Jr. organized consumers in order to make them take products which they thought, best suited them. From that time on, consumers began to have a never-fulfilled desire for most industrial products: cars, clothes, homes, furniture, cigarettes, drinks, etc.; because their needs were enflamed by insatiable desire, enflamed by advertisements and communications. The “value in use” of clothes fashions is used up much faster than the texture of them. As a result, the market multiplied in terms of consumption in advanced economies; consumers began to dump things that still had “value in use” physically; so manufacturers invested in production equipment of the products of the same “value in use” again and again; a flood of communications and information began to occupy the mind of consumers with fragments of words and images, namely just signs; however, the desire for things rankled more and more. In a sense, the human race discovered another frontier, a vast uncultivated market in people’s brain, which was and perhaps still is, far more fertile than the remaining geographical frontier. Material sufficiency brought by human industry, which Saint-Simon and Henry Ford set as a major end, has not yet covered all of the human race, partly because serving limitless desire has been acknowledged as the first priority of industrial activities.

2. Secondly, the growth of financial markets after the 1980s, or rather its restoration after one half a century, would surprise Saint-Simon and Ford if they were alive now. In the case of Saint-Simon, bankers were expected to distribute capital in order to achieve a well-balanced growth of public wealth, based on the information they would have. In fact his disciples established a bank that could have taken this role, but it failed after Saint-Simon passed away.

Saint-Simon did not expect that bankers would behave only on their own account, let alone that the scale of financial markets would become as large as under the current situation. For Henry Ford financiers were “absentee dividend-takers” of business but they were also a necessary evil of society; their role should be limited to the intermediary of money.

It is very interesting that the market has expanded, on the one hand, over the physical boundary into the spiritual or mental sphere, on the other hand, over the boundary of goods into money; because, for Saint-Simon and Henry Ford as well as other modern thinkers, spirit and money were entities that constituted the criteria and frame of the market; therefore, they should be managed by other principles than market mechanisms. However, at least until now, the market has so enlarged as to swallow these two entities up; this expansion of market has reached such a degree that the market embraces more than one society — we hear the word “global market” far more often than “global society”. In the first half of the 20th century, the conception of a “nation” and “race” overwhelmed that of “society” in some parts of the world. We now see that “market” or “economy” is placed higher than that of “society”.

3. Thirdly, the circumstances surrounding scientists has changed considerably since the age of Henry Ford. Today, scientists belong to either public institutions or private enterprises. As the specialization of their work has developed further, the management of research projects has become the most critical task for those organizations. The biggest change is that the morality and ethics of scientists or science in general is attracting public attention to a degree that it has never done before. Not because of the necessity of avoiding a dissolution of society, as Saint-Simon thought, but in order to protect lives on the earth from the menace of science and technology. Nuclear weapons, bio technology and the aggregated negative effects of industrial activities on the global environment are three actual and critical issues. Scientists have not faced these with morality (with a few exceptions), on the pretext that they are free from temporal interest and they are just doing their work, according to the discipline of science for the progress of human civilization. However, science and technology, as a way of transforming nature into the utility of the human race, has advanced to the point that it can transmute or even create lives; or it can instantaneously destroy millions of human lives. We need to deal with the issue of morality as the most important social issue, not as an issue of the interests of various organizations. This issue is so important that we need to create a general theory, as Saint-Simon wrote.

4. We think that what kind of society or scenery one foresees over the industrialism is important because it is not an end but means. Henry Ford thought, ‘We are not living in an age of industrial expansion; the very expression shows a lack of grasp of what is going on. We are living in an age when for the first time it is possible to supply a fair part of the needs of all peoples if they really want their needs supplied. . . . We are living in an age when it is possible to use power and machinery in the public service — and at a private profit. . . . Perhaps we may overproduce, but that is impossible until the whole world has all it desires. And if that should happen, then surely we ought to be content.’³¹

Saint-Simon wrote, ‘I believe people are the happiest materially in such country as: people take the best meals, live in the best houses, clad in the best clothes, travel most easily; and they can procure most of necessities and comfort of daily life. When, in the same country, intelligence of people is developed; they can comprehend arts; they know principles that regulate natural phenomena and the method that can change the natural phenomena; and lastly, they are kind among each other; I think they are spiritually the happiest.’³²

What should or could we foresee over the present industrialism?

Notes

- 1 *The Wealth of Nations*, Book I Chapter XI, Adam Smith, Everyman's Library, New York
- 2 *Ibid.*
- 3 *Ibid.*
- 4 *Ibid.*
- 5 *Ibid.*, Book I Chapter VI.
- 6 *Ibid.*, Book I Chapter VI.
- 7 *Ibid.*, Book I Chapter VI.
- 8 *Ibid.*, Book I Chapter VI.
- 9 *Ibid.*, Book I Chapter VIII.
- 10 *Industrial System*, Saint-Simon, 1821, Japanese translation by Hiroshi Mori Volume 4, English translation by author, Koseisha Koseikaku Tokyo.
- 11 Industry Part II, Saint-Simon, 1817, Japanese translation by Hiroshi Mori Volume 2.
- 12 *A Treatise on Political Economy*, J.-B. Say 1821, translated by Clement C. Biddle, Book II Chapter VII, Augustus M. Kelly, Bookseller.
- 13 *Industrial System*, Part II, Saint-Simon, 1821 translated by Keith Taylor.
- 14 *Industrial System*, Saint-Simon, 1820–1821, Japanese translation by Hiroshi Mori Volume 4, English translation by author.
- 15 *Ibid.*
- 16 *Today and Tomorrow*, Henry Ford, 1926, Chapter 3, CRC Press.
- 17 *Industrial System* Part 3, Saint-Simon, 1822, Japanese translation by Hiroshi Mori Volume 4, English translation by author.
- 18 *Ibid.*
- 19 *Industrial System* Part 1, Saint-Simon, 1820–1821, Japanese translation by Hiroshi Mori Volume 4, English translation by author.
- 20 *New Christianity*, Saint-Simon, 1825, translated by Ghita Ionescu.
- 21 *The Historical Structure of Scientific Revolutions*, 1985.
- 22 *My Life and Work*, Henry Ford, 1922, Chapter 1, 1st World Library.
- 23 *The Gospel of Wealth*, Andrew Carnegie, 1889, The Century Co.
- 24 *Today and Tomorrow*, Henry Ford, 1926, Chapter 3.
- 25 *Ibid.*
- 26 *My Life and Work* Chapter 7, 1922.
- 27 *Ibid.*, Chapter 8.
- 28 *Today and Tomorrow*, Henry Ford, 1926, Chapter 24.
- 29 *My Life and Work*, Henry Ford, 1922, Chapter 8.
- 30 *Ibid.*
- 31 *Today and Tomorrow*, Henry Ford, 1926, Chapter 24.
- 32 *Industrial System* Part 3, Saint-Simon, 1822, Japanese translation by Hiroshi Mori Volume 4, English translation by author.

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