

"Etudiant ou apprenti", by Louis Cadot, PUF, Paris, 1982.

(For Guy Vermeil, author of the preface to the book.)

The following considerations will not try to criticize the book, but they will try to show it to be characteristic of an attitude toward the problem of learning. The attitude is this: Man, (like some other higher animals), learns to do things. This attitude has become so general in bourgeois society that one is tempted to take it for granted. It contrasts however with our classical and medieval tradition, with many non-occidental traditions, and with recent developments. Those traditions and developments point to a different attitude toward the problem: Man, (unlike any other animal), lives in order to learn. The book here considered believes that it is "revolutionary", or at least reformist, because it proposes changes in the learning methods which would enable people to do things better. But precisely this is what makes the book "reactionary" from the point of view of the second attitude toward the problem of learning. I shall try to approach this "reactionary" quality of the book from two different angles. (1) From classical tradition, and (2) From the point of view of the so-called "Second Industrial revolution".

(1) The distinction between "student" and "apprentice" is one dear to Plato. But it sustains the whole of Greek anthropology, and, by extension, much of medieval anthropology as well. For such an anthropology, there are three forms of human existence, and they constitute a hierarchy of levels. The first form is called "the economic life", and it is exemplified in the kitchen: it is a purposeless life of eternal repetition. One cooks in order to eat, and eats in order to cook, one lives in order to die, and dies in order to be reborn, ("kyklos tes geneseos"). The second form of existence is called "the political life", and it is exemplified in the workshop: it is a life the purpose of which is to change the world. One makes leather into a shoe, and one then exchanges the shoe for some other piece of work, ("techné"). The third form of existence is called "the theoretical life", and it is exemplified in the market place: it is a life of idle dialogue, ("scholē"), and its purpose is to achieve wisdom, ("sophia"). "Economy" sustains "politics", because only he who has some slave laboring in his kitchen to feed him is free to make shoes. And "politics" sustains "theory", because it opens up the market place where the philosophers can exchange their ideas. Thus the slave sustains the "apprentice", and the "apprentice" sustains the "student", and this is as it should be.

It is as it should be for the following reason: The "slaves" are not true human beings, because they "see no ideas". They are "private=deprived of ideas", they are idiots, (in the true sense of that term). To modernize this for us impalatable definition of "slaves", we might say "machines" instead. Thus the only possible justification for the existence of "slaves", (machines), is that they emancipate true men, (citizens, artisans, artists), to do things. But those "free men" are not very admirable either. What a shoemaker does is to impress the idea of a shoe into leather. In doing this, he changes the leather, (the world), but he changes the idea of the shoe as well. He adapts the idea to the leather. Thus his shoe will not be an "ideal shoe", but only a more or less imperfect imitation of the idea.

If one looks at such a shoe, and if one wears it, one is exposed to a "false idea", to a mere opinion, ("doxa"). The "free man", the artisan, the artist, the "homme politique", in sum: the apprentice, is thus subject to various "orthodoxies", to conflicting false ideas. It is the philosopher in the market place who can judge how false the idea in the show is, because he can compare it with the "true idea of a shoe", as he sees it in his vision, ("theoria"). And he has such a vision, because he is not interested in changing the world, but in the logical order of the eternal ideas. This is why the philosophers should be kings, and why the apprentice should be subject to the student.

For the Ancients, it was quite obvious that the purpose of life is the search for wisdom. The arts and crafts, politics, freedom were not aims in themselves, but means to achieve wisdom. The school, (which literally means "leisure"), was for them the place men should aim at. This is why to do work was for them a punishment, a disease, an de-privation: "neg-otium", "a-scholia"=lack of leisure. But to do work was justified, if it permitted the pursuit of wisdom. The medieval city with its artisans, artists, "citizens", was justified, because it permitted the monks, the "scholastics", to pursue wisdom, ("prayer"). (Not to mention the serfs in the fields, which permitted the citizens to permit the monks to pursue wisdom.) But all this changed with the bourgeois revolutions of the Renaissance, when the artisans and the artists, in sum the apprentices, assumed power. All of a sudden to do work was no longer felt to be a punishment, and it became a source of pride and honor. ("Schaffungsmoral=morality of creation"). When the apprentice became king, wisdom no longer was the purpose of life, and the school was degraded into a place to serve doing things. "Theory" was no longer a method to achieve wisdom, but to do things better. Men no longer lived in order to learn, but they now learned in order to do things. "Non scholae sed vitae didimus", where "vita" means working. The student became a servant to the apprentice. Archaically of course, (in the "collective memory"), the term "student" still evoked its ancient glory of being the only way of life worth living, but in practice the justification for students was the work they were capable of doing.

Now the whole argument of the book under discussion goes on within the parametres of this Renaissance attitude toward learning. It would like to do away with the archaic remnants of glory which still adhere to the "student", (in France more so than in the New World), and thus submit him even more fully to the apprentice. To be sure: the book does not deny the "utility" of theoretical learning, but it is precisely this "utility", and not its "purenness", which the book considers to be worth while. Curiously enough, however, the author seems to believe that if theory were totally subject to utility, this would avoid "technocracy", (a term which the author does not seem to have profoundly considered). In fact, of course, "technocracy" is synonymous to "the kingdom of the apprentice". Thus the book is committed to the establishment of full technocracy, although in a form which can no longer hold after the Second Industrial revolution. Thus the book is "reactionary" in two directions: It is reactionary, because it aims at sustaining the Renaissance, artisan, bourgeois form of existence. And it is reactionary, because it is opposed to the new form of existence, as it is about to crystallize.

(2) The "Second Industrial revolution" is, in its essence, the transfer of the majority of active society from doing things to servicing, (from the primary and secondary sector to the tertiary sector). It emancipates man from the necessity to "work", (in the sense of: to change the form of things), by automation. Programmed tools, ("intelligent tools"), can, even now, substitute man in the more simple gestures of work, and there can be no doubt that they will do so in ever more complex gestures in the future. Human activity will concentrate ever more upon the elaboration, the analysis and the control of the programs which provoke the tool motions. It will concentrate ever more upon "data processing". Now this will have several very profound effects on human existence.

The most obvious effect will be that interest will shift from objects to information. Objects will become ever more cheaper, (ever more devoid of value) and interest in owning objects will lessen. Information, on the other hand, (namely the form which the tools will automatically impress on objects), will become ever more expensive and more valuable. Not the owners of objects, (the "capitalist but the elaborators of programs, (the "informants"), will hold power. Which means that bourgeois morality, (the morality of work and ownership), will no longer be effective, and that traditional critiques of society, (like the Marxist one), will no longer be useful.

But an even more profound effect of the shift from work to data processing on human existence will be that men will no longer face objects when engaged in activity, but that they will face symbols instead. They will be manipulating symbols, not "matter", and they will be interested in changing, not the world but the meaning of the world. In fact: instead of working, they will be playing with symbols. "Homo faber" will be substituted by intelligent tools, and humanity will become a society of "homines ludentes". Now the book under consideration correctly notes that what distinguishes the "student" from the "apprentice" is precisely the fact that the "student" is concerned with symbols. Thus man of the Second Industrial revolution will be a "student". But it will be a new sort of student, because he will not be manipulating texts so much, and will be manipulating cybernetical, mosaic-like memories instead.

And this is, in my opinion, the most profound effect on human existence which the Second Industrial revolution will have. Human memory will be substituted by artificial memories, and man will be emancipated from the necessity to store data. To learn will no longer mean to accumulate data in one's memory, but it will mean to acquire the faculty of processing the data stored in some artificial memories. What people will learn is not so much "hard facts", but system structures, not the multiplication table, but the theory of numbers.

To consider this, one must keep in mind that the man of the future will spend most of the time of his life in school, (leisure), that for him to live will be to learn. Until the age of 18, after the age of 60, for two months of the year and for two days of the week, and periodically in between, (to re-cycle), man will be free to acquire experience, knowledge and values, in sum: information. And this information will be about system structures. Thus, even from a purely quanti-

tative point of view, the school, (in the wider sense of "place of leisure"), will become the most important place for human existence. Man, even quantitatively, will become most of the time a "student".

Now one may see that there are parallels and differences between the attitudes of the classical tradition and of "future man", where learning is concerned, but that "the man of the future" is much closer to classical tradition than is bourgeois man, as exemplified in the book under consideration. If we translate the Second Industrial revolution into Platonic terms, we may say the following: The "economic" form of existence, the eternal repetition of gestures, is now being led by the machines as they were invented in the First Industrial revolution. The "political" form of existence, the change of the form of the world, is now being led by intelligent tools as they are being invented by the Second Industrial revolution. And humanity as a whole will now lead a "theoretical" existence. The machines are the "slaves", the intelligent tools are the "apprentices", and humanity as a whole are "students". It thus might seem as if we were entering Utopia.

But of course this is not so. Because what is different in our situation from the Platonic model is the meaning of "theoria". It no longer means the vision of eternal ideas which leads to wisdom, but it now means a play with soft, plastic, transformable symbols, with "models". "Students" are no longer philosophers, but data processors, and if and when they become kings, it will not be the reign of wisdom, but the reign of gamesmanship. "School" is no longer the place for the contemplation of wisdom, ("kallogagathia=what is beautiful and good"), but it now is the place where information is created. And this is, of course, a danger. Because to play around with symbols may lead to total loss of existential purpose. It may become an absurd endeavor. This is the challenge of the Second Industrial revolution: How to avoid that danger, and how to inject a meaning into the school of the future? How to provide the games with symbols with an existential purpose?

Now the book under consideration does not take up this challenge. It shuts its eyes to the fact that it is symbols, and not "matter", which is of interest in the future, and that what will count is not changing the world, but changing the meaning of the world. It is "reactionary", because it does not accept the new, and truly revolutionary, attitude toward learning, and thus fails to see the problems which this attitude is posing.

Nonetheless the book is worth reading. Because it shows how the bourgeois "work moral" assumes various avatars, the "liberal" one, the "Marxist" one, the "alternative" one, and the one expressed in the book, without changing its fundamental Renaissance, "apprentice", structure. The book shows that all those tendencies which call themselves "progressive" are in reality opposed to the tendency toward a future where man will live in order to learn.