

SCHOOL AND SURPLUS-VALUE: CONTRIBUTION FROM A THIRD-WORLD COUNTRY

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Abstract

The paper accepts Vinner's [1997] conception of school as a credit system and addresses two questions inspired by Chevallard and Feldmann [1986]: why do teacher and students' interests diverge necessitating negotiation of the knowledge to be taught and the legitimacy of exam questions? Why do these interests converge and both parties pretend that exams are a measure of acquired knowledge and that negotiation does not exist? The answers evoke educational and political circumstances of a Third World country and rely on the conception of school as a place of production of qualified labour force. A pass/fail criterion – to each one according to his/her work – is hinted at.

Introduction

Marshall and Thompson [1994] surveyed six recent books on assessment [Niss, 1993A, 1993B; Romberg, 1992; Lesh & Lamon, 1992; Leder, 1992; Gifford & O'Connor, 1992]. In the 1994 pages surveyed, I could not find studies about the implications of assessment for social promotion and selection. The authors seem to believe in the existence of a real object to be measured. They are mostly concerned with the search for *satisfactory, valid and reliable* methods of evaluation. My conjecture that that they generally believe that social selection is a natural consequence of the various evaluation processes incorporated in society. They seem to feed the hope that trustful evaluation procedures in mathematics could contribute to the edification of a just society: to each according to his/her merit. In fact, an ideology of justice and an implicit validation of instructional objectives is observable at the basis of most research about evaluation.

An omission is also notable in 1673 answers obtained by Rico et al [1995] from a questionnaire addressed to 59 teachers: none referred to the implications of assessment to social promotion/selection. After declaring that “*one of the axes of research in didactics consists in extracting the constraints which influence the didactic system*” Laborde [1989] lists six of the “*most important*” constraints: the characteristic of the knowledge to be taught, the social and cultural constraints that determine the teaching content, the linearity of syllabi, the pupils' concepts, the teacher-learner asymmetry, and finally the teacher's knowledge. Pass/fail

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criteria is not cited. It is beyond the sixth magnitude, invisible to the naked eye. This symptomatic blindness was finally broken by Shlomo Vinner in his plenary address in the PME meeting of Finland. He brought the theme sharply to light: *"the educational system is, above all, a credit system"* [Vinner, 1997: 68]. Four years before, William Thurston had also similarly characterized mathematical scientific production itself: *"More than the knowledge, people want personal understanding. And in our credit-driven system, they also want and need theorem-credits"* [Thurston, 1994: 174].

The importance of the credit system for mathematical education had been hinted at in a previous monograph by Chevallard e Feldmann (1986). These authors propose

"(...) a new look at didactical facts of evaluation. The marks assigned by graders are not a measure but a message that intervenes in a negotiation; this is a transaction that validates a power relation between teacher and students about the knowledge to be taught" [Chevallard and Feldmann, 1986, preface, my translation].

According to the authors, the didactical contract is negotiated in a climate of opposition between teacher and students.

"Students try, if not constantly, at least in a systematic and regular way (...) to diminish² the teacher's requests about the kinds of competencies to be acquired about the elements in question – if we cannot avoid such a concept, at least let us avoid certain of its uses" [Chevallard & Feldmann, 1986:105, my translation].

However, in the language in which the negotiation occurs, in spite of being in opposition about what is legitimate to demand from students, the interests of teachers and students converge on another point: both collaborate in making believe that the negotiation does not exist.

"The discourse (about the negotiation) proposes (to the outsiders as well as to the participants) an image that can be agreed upon; that is, an image that makes the modalities of negotiation socially acceptable. It is a rationalisation discourse whose function (if not the intention) is to defend and enhance the rationality of the enterprise (...). In precise terms, what such a discourse says (or at least what it indicates) is that, here, negotiation does not exist (...)" [Chevallard & Feldmann, 1986: 70, my translation].

The questions that I intend to address in this paper are the following: What values are at stake in the negotiation? Why do teacher and students' interests diverge, necessitating negotiation? Why do they converge and both parties pretend that negotiation does not exist? For the first and third questions, the

² *Péser à la baisse*, literally weigh down.

particularities of negotiation in Third World countries may shed some light on phenomena barely observable but surely present in First World countries too. The concept of surplus value will help me to answer the second question.

Subsidiary promotional criteria.

Rationalisation failures in the speech about evaluation are more easily observable in classrooms of third world countries since here, school practices depart more widely from their face values. What can be said about negotiation if there are students already majoring in mathematics, who need five two-hours sessions of individual tutoring with plastic cubes in order to account for the relation of $\binom{5}{2}$ with 5-factorial? How does this student participate in a negotiation about knowledge? What about another one who needs one hour of assistance in order to enlase two sets of logic blocs to form a Venn's diagram such as the "reds" and the "squares"? What about the one who faces a chessboard supposed to be perfect and is not sure whether the prolongation of the diagonal of a particular square will cover the diagonal of a square at the periphery of the chessboard? What about a student who, after minor changes of the expression of an indefinite integral, repeats the same mistake $\frac{1}{a+b} = \frac{1}{a} + \frac{1}{b}$ three times in a period of twenty minutes. Such cases are not exceptional. They are rapidly becoming the general rule. For these students, learning seems an impossible strategy to pass. Insofar as they end up getting credit and certificates, we might ask what do they actually negotiate about?

Teachers also participate in the negotiation. They foresee that learning may be an impossible passing strategy for many. They take care not to assign a number of failing grades beyond convenience. One of them told me: *I make two easy questions for those who know very little and two difficult ones, to detect the good ones.* From another teacher I got: *A certain amount of rote is not harmful. I tell them that I am going to ask one of these twenty integrals.* I open a classroom door, and I see that the students are taking a written final. They are sitting on arm-to-arm chairs. The teacher is reading a newspaper... Some teachers make really hard questions but they supply a considerable amount of help during the exam. Others get the students together the day before the exam for a "last review" and make clear, at least to those who develop a certain ability to understand it, what is going to be asked the following day.

These are well known facts, not mentioned in studies on evaluation. It is hardly seen how all such instances of negotiation, directly connected to promotion, can be analysed from the strict point of view of didactical contract about knowledge. What is really at stake in the negotiation are the *subsidiary promotional criteria*. These criteria validate non-learning strategies to get credit, to the benefit of those students for whom the learning-based strategy is

impossible. Subsidiary promotional criteria keep the output of certificates at a level compatible with the investment made in the school system. Knowledge becomes an alibi for educational credit practices. A certain amount of faking is present in different degrees throughout the school system: "*But don't we want to be deceived, especially when it comes to our student's achievements?*" [Vinner, 1997: 73].

School and surplus-value

Why is credit so important to people? Because it leads to certificates and certificates imply higher salaries. Any one who has ever looked for a job knows it. An economical value is at the base of the negotiation occurring in school. Let us consider this.

For political economy, salaries pay for work. School produces work of higher quality: managers, supervisors, executives. The problem of accounting for the presence of different degrees of work quality in the economy was established by Adam Smith: "*Different degrees of effort and ability should be taken into account*" [Smith, 1776, Book I, Ch. V³]. However, subsequent political economy has discarded this problem: "*If one day's work of a jeweller is worth more than one day's work of a simple worker, this relation has been adjusted long ago and placed in its right position in the scale of values*" [Ricardo, 1821, Ch I, Sec. II]. Even Marx has refused the problem: "*(...) for the process of creation of surplus value, it does not matter whether the work seized by the capitalist is simple work, average work or a more complex work, of an up-per specific weight*" [Marx, 1890, Ch. V, 2].

Classical political economy, up to Ricardo, considered that the salary paid for *all the work* done by the worker. A difficulty arose: in steady-state economies, all exchanges occur between merchandises of equal values: linen for iron, iron for gold (money), gold for work. If so, where does the increase of the national product come from? The answer produced by Marx was the following: the salary only pays for that part of the work necessary to reproduce and replace one special commodity used in the production process, namely, the *labour force*. Its owner is the worker and its use has the property of increasing the value of all the others, because the rest of the work done by the worker, beyond the work necessary to reproduce his/her own labour force, remains unpaid. This unpaid work constitutes the surplus-value.

"(...) the product representing the work that the worker does for himself, what this work brings him, his income, constitutes only the salary; it is the fraction of (created) value that expresses his salary. If salary-paid work and work

³ Quotations from Smith, Ricardo, Marx and Sraffa are my translations from Brazilian editions.

coincided, the salary would coincide with the (total) product of work (...)” [Marx, 1890, Ch. XLVIII, 1].

Marx proposed the problem of determining the prices around which the market adjusted the exchange rates of commodities, but he could not solve it. More recently, Piero Sraffa [Sraffa, 1960] proposed a system of linear equations from which these prices could be determined. Each equation corresponded to the production of one commodity. However, there is no equation expressing the production of the labour force. He does not consider it a commodity like the others that must be produced somewhere. He also explicitly discards the problem posed by a higher quality labour force. “*We assume that the work is uniform in quality; in other words, we suppose that any differences in quality have been previously reduced to equivalent differences in quantity, so that any unit of work gets the same salary*” [Sraffa, 1969, Ch. II, Sec. 9].

It seems that political economy has refused to speak about school. Indeed, historically, universities have been more closely associated with churches than factories. It is perhaps time to look at school as a place of production. I shall retake an Adam Smith idea: “*Salaries vary according to the cost necessary to learn the profession*” [Smith, 1776, Ch. X]. The bulk of my argument will be that, just as simple labour force is produced in the families, a *higher quality labour force* is produced at school. At least two extra equations should be added to Sraffa’s system: one for the family and one for the school. However I shall not go into these here. I will simply say that, in the social practices that occur at school, students, teachers and the administrative staff participate in a process of transformation of students’ labour force, initially simple and unqualified, into a commodity of higher value, to be sold in the future for a higher salary, expected to pay off the investment of time and effort.

In this process of raising the quality of their labour force, students occupy a double position: while actively engaged in the work of raising quality, they occupy the position of *workers*; while owners of the commodity in process of increasing quality, they occupy the position of *capitalists*. This remark will help us to understand their behaviour.

The student’s simple labour force is deposited as a reserve of capital necessary to guarantee the production, just as in any capitalist enterprise: a certain amount of money, real estate or land is registered as the company’s capital and prevented from being used for other purposes. Otherwise, one cannot participate in the process of seizing surplus-value. The school system strictly controls the students’ presence in class in order to guarantee that, during that time, they are not selling their deposited simple labour force. It is assumed that during this time students are *studying*, that is, working to increase the value of their deposited capital. The ritual marking the stripping of the students’ simple labour force is well known: freshmen hazing, shaving heads, etc. The ritual marking the

recapture of the now qualified labour force is the solemnity of graduation, dressed up by formal clothes and panache...

Future salaries are the price of the higher quality labour forces. They depend on three values. The *use-value* is the know-how, the sum of all abilities developed by the students during school time, necessary for their future professions. The *exchange value* is the total amount of work of students, teachers and staff, incorporated in the higher quality commodity. The *sign-value* [Baudrillard, 1972] is the importance that society assigns to the particular certificate, considering its duration, difficulty, social status, tuition level, etc. All students and their families collaborate in the formation of the sign-value. They build the reputation of the school system. They make their general behaviour (class attendance, boast about the course's importance in social meetings, etc.) signify how much we should praise their efforts.

However, only students who get certificates recapture their labour force. This labour force embodies the work done by all, by those who flunked, by those who abandoned the course, by those who could not buy a higher education and remained at the lower levels of the pyramid. Graduates get higher salaries because their labour force embodies more value, more work done by themselves but, mainly, by others who were left behind. Hereby we can find an answer to Althusser's question: why the school apparatus has become the dominant ideological state apparatus [Althusser, 1976]? It is because at school the student learns, above all, to participate in and accept the conditions of production and seizure of surplus value, the work done by one's fellow men.

Insofar as students participate in the process as workers, their goal is to use their student's energy, their active labour force, the little as possible, with the least possible effort. Insofar as they participate as capitalists, owners of the reserved labour force, their goal is to increase its value to the maximum.

However, students will only get their increased capital back if they reach the certificate. Hence, it is necessary to pass, but, with the minimum effort, if possible, without having to adopt the strategy called learning. In order to perpetuate the process of production/seizure of surplus-value, a certain amount of failure is necessary. The adequate levels of production and the average guarantees of exchange have to be determined just as in any sales process. Hence, it is necessary to negotiate.

The cynical⁴ consciousness

Why is it necessary to pretend that negotiation does not exist? Here again, the examination of situations clearly visible in Third World countries, but surely present to some degree in central ones as well, can help us to find an answer. Recent Brazilian political events provide some helpful clues. A congressman

⁴ From French *cynique*: feelings and opinions contrary to accepted moral.

explains the origin of his fortune: “*God helped me win the lottery four hundred times*”. Society takes this with only a smile. Another congressman is videotaped confessing that he has faked the signature of a mayor and a payment order of a governor: “*I did not do that as a Congressman*”, he explains. “*There are no proofs.*” His peers seem prepared to accept the logical contradiction. Three upper middle class boys throw one quarter of gallon of alcohol on a sleeping person at a bus-station and set fire. “*We thought it was a beggar; we did not know it was an Indian. We had no intention to kill*”. The blind justice accepts it. They will not face a jury. Another videotape shows a policeman shooting at a car after having beaten and extorted its five passengers. One person in the rear seat is hit and dies. *I did not kill him*, he protests. *My gun was loaded with fake bullets*.

In vain, we hope that somebody will admit a crime and confess. We get the impression that these people are attached to some kind of seriousness that they never abandon.. We cannot repeat with Christ: “*Forgive them because they do not know what they do*”. Nor can we repeat with Marx: “*They will do it best insofar as they do not know what they do*”. Apparently people are well-informed that they have been discovered; nevertheless, they continue to sustain their innocence. Apparently this is a new form of ideology, resistant to unmasking and immune to assailing. It can be properly called the *cynical consciousness*⁵.

“*Should we say that with the cynical consciousness we surpass the ideological field and enter the post-ideological universe where an ideological system reduces to a simple means of manipulation that is not believed even by its inventors and preachers?*” [ZIZEK, 1990: 75]

Would there be a kind of cynical conspiracy immune to the classical methods of struggle, revelation and assailing? The answer is no. We simply have to take into account the listener as well as the speaker. Pay attention to the demanding ears, not only to the speaking mouths.

In order to hear the criminal a façade of seriousness is put up; people in white-collars, mahogany tables, direct TV cameras at every corner. The criminal is not scolded or mistreated. He deserves respect because, in spite of the film that shows him beating, extorting and killing, we “do not know” yet if he is guilty. He has not been judged! The judge asked this criminal with a voice as tender as the voice of a mother: “*So you declare that you did not do anything violent?*” The tone of the question unbalances the criminal: “*At least not in the way they accuse me*”. The scene was shown on Brazilian TV in April 11, 1997.

The problem is not to know whether the people who participate in these rituals believe in what is being said there. What has to be noted is that the State, Justice and Ideology, in one word, what Lacan calls the big-Other, believe so. Lawyers do not defend criminals; they defend a thesis before a society. Society

⁵ Expression of Peter Sloterdijk, according to ZIZEK, 1992: 74.

believes in what it wants to hear, in spite of nobody personally believing in what they hear. Official truth breaks apart from personal truth.

How can this contradiction persevere? Why does society need an official version of facts covering up what everybody knows? Because the basis, the ground of this social formation is an imposture whose revelation threatens to throw the whole society into an abyss. It is the basic imposture of equality in work contracts, the assumption that employers and employees freely meet together in the market where they exchange commodities of equal values: salary for work. This is a lie. Not only is the salary worth less than the work, but also the worker sells his/her labour force because s/he has nothing else to sell. S/he sells it to remain alive, this when s/he can find a job. Third World countries make this picture very clear. Remember that 15% of the Brazilian labour force is unemployed in March, 1998. The price of labour force in the “market” depends on all tricks set by globalisation of capital controlled by bankers and managers of multinational companies. In order to be brave enough to go on his/her daily search for a job, the workers has to feed the fantasy of equality and believe that the exchange will be between equals.

Unfortunately, it is the same kind of seriousness that is present among teachers and students when they negotiate the didactical contract. They know very well that the learning-based strategy is impossible for most students and that the success of some depends on the failure of many. Therefore, they tend to make believe that negotiation does not exist and that grades reflect the measure of acquired knowledge.

“At this point the distinction between “symptom” and “fantasy” made by J. Alan Miller shows all its weight (...) the “cynical” person, who “does not believe it”, who knows very well the uselessness of ideological propositions, does not know the fantasy that structures social reality itself (...) What individuals do not know, what they do not realise, is the fetishist illusion that guides their own effective activity” [Zizek, 1992, 75].

A possible way out: solidarity assimilation groups

If we accept that this analysis is well-founded, how can we continue to act in our classrooms? If we cannot answer this question we risk being immobilised by the analysis. Since the world is structured in this way, there is nothing that we can do. How can we solve this problem? In fact, I have developed the solution simultaneously with the analysis. What I did was to explore the weak point of cynical consciousness:

“The cynical one lives out of the distance between the announced principles and the general practice – all his/her wisdom consists in legitimising such a distance. The most unbearable thing for the cynical position is to watch an open, proclaimed transgression of the

law, that is, the enhancing of transgression to the condition of an ethical principle” [Zizek, 1992: 75].

The solution takes the form a didactical and pedagogical proposition called Solidarity Assimilation Groups (SAG) [Baldino, 1997]. It consists in the introduction of an explicit subsidiary promotional criterion based on assessment of group work quality, measured by duration of work. This criterion is put on the negotiation table of the didactical contract – this table around which everybody is trying to make believe that negotiation is not there, or that only requirements about mathematical competencies are at stake. Cynical consciousness knows very well that subsidiary promotional criteria have always been present in the list of transgressions, as the hidden counterpart of the nice façade principles. Cynical consciousness classifies these subsidiary criteria together with the raw material for future public scandals. All its wisdom consists in hiding such material where, for a long time, desire has learned to look for its objects and has always found the nice face of a possible non-learning strategy to capture the other’s work and get credit. All the wisdom of cynical consciousness consists in legitimising the choice of such strategies.

Suddenly, on the negotiation table of didactical contract, emerges the proposition according to which someone who has worked hard should get credit even though s/he has not learned the so called necessary minimum: *credit for work, not for mathematical ability!* The cynical consciousness panics, because this looks very much like what it has always done. It feels like a vampire in sunlight. The danger is double. The proposition threatens the functioning of the school apparatus but, furthermore, it threatens to shed light on the founding contradiction of the capitalist mode of production; namely, the capture of plus-value. We refer the reader to Baldino [1997] for more information about SAG.

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