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## COMMENTO ALLA RELAZIONE DI GERAINT JOHNES

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1. How professor Johnes thinks about the subject is extremely stimulating for public economists "Education takes time, and its benefits are realised over many years. The relationship between education and other choices that individuals make over the life cycle is therefore a dynamic one, the analysis of which requires sophisticated theoretical and empirical tools". With this statement, our guest speaker, opens the way to further research in terms of rational choice, public choice and constitutional economics. Actually the assumptions of perfect rationality and maximizing behaviour that pervades several of the contributions to the economics of education that professor Johnes skilfully analyzes in his paper, in the light of the above statement, appear untenable. The choices of education of the young people are only partially done by them. Mostly are done by the parents or other older members of the family who do not necessarily maximize the individual welfare function of the students as felt by themselves. Furthermore the assumption that the present individuals maximize their welfare in the future with perfect information, perfect foresight and without akrasia is subject to severe doubts. Finally, because the effects of education are postponed and to value education one must be educated, there is a large room for opportunistic behaviour on the supply side and a problem of information asymmetry between the present choices about the education and the choices that retrospectively the educated person might do. To support these conclusion there is another intelligent statement of professor Johnes : "By definition, education is transition from ignorance to knowledge. The economics of information and models of behaviour of principals and agents sit naturally alongside the concept of learning."

To a large extent because of these reasons, education up to a given age in modern societies is compulsory public. And economists often classify education as a merit good . But merit goods may be viewed in a paternalistic or in an individualistic approach. It seems to me that a lot more has to be done, in this area, in a public choice perspective.

. It follows that public economists should pay more attention to this field, *from the point of view of their more modern tools of analysis*. In favour of this claim I can

again quote professor Johnes in his concluding remarks where he argues that *"understanding the process of education involves the full toolkit of modern economics"*. For instance as for the distributive effects of public expenditure on education one cannot be satisfied by the simplistic consideration whether they benefit the less to do or the affluent families . The theme deserves a more systematic treatment from the point of view of constitutional choices. Here the different general principles of justice under the veil of ignorance or in a similar detached perspective should be brought in. A paper as that of professor Johnes on higher education under alternative social welfare functions may be one example of the possible approaches .

2. The highly technical paper of professor Johnes is mostly devoted to review the current state of economics in the area of education. The critical remarks that I shall now make are not directed to professor Johnes himself, but to the scientific literature that he reviews. The human capital concept adopted in the current economics of education, appears unsatisfactory. From the assumptions currently adopted in the researches on the effect of education on economic growth it seems that human capital it is there conceived as a mere individual endowment, totally protected by individual property rights. As professor Johnes put it: "Since the increased earnings typically come from increased productivity, the social benefit of education is usually considered to be similar to the private benefit " According to the present literature on education poor nations under invest in education. An explanation may be the lack of foresight of individuals ,about the private benefits that can draw from it and because of the inadequate intervention of the government to take care of this lack of foresight This argument for under investment in education by the less developed nations contains some truth, but it is inadequate . On the one side, the private one, it seems to me that a basic reason of the limited interest to invest in education by private individuals, in some countries, is the scarce respect of the government for the property rights, particularly those related to the person. On the other side, the public one, it seems to me that the intrinsic nature of education of quasi public good

in the realm of knowledge-goods is undervalued. According to the prevailing literature, indeed, affluent nation over invest in education because while the social returns of education are chiefly expressed by the income that people may earn trough education, the costs of it are partly borne by the governments. Marginal returns of education thus exceed social marginal costs. Specific and atmosphere externalities of education are completely ignored. The entire theory of growth as an increasing return process , due to industry and inter industry externalities and district externalities is also ignored.

The notion of "human capital "assumed to reach these conclusions appears contradictory to the very notion of "knowledge" that is at its basis. Human capital, as professor Johnes tells us, is made of ideas. The property rights on ideas are, by definition, weak. And their use, by definition, is often non rival. Because of these reasons, the human capital of a nation conceived as its capital of knowledge has the nature of a stock of quasi public goods. Knowledge as an asset is a delicate entity subject to decay. It needs to be constantly fed with new knowledge stemming from the education of the new generations. The new human capital thus produced does not consists of the mere private knowledge of the educated people. By their productivity they enhance the marginal productivity of the other factors of production and thus increase the rents obtained by them. Educated people, with their work, add new elements to the ongoing concern of the human capital of the community. The spill over of the benefits of education from the individuals who acquires it to the others surrounding them begins at school, as professor Johnes himself reminds us. Indeed he describes the model in which the quality of the education provided by the private schools tends to be better than that provided by the public schools because the first are (supposedly) attended by students with high ability. And their presence influences positively the learning of the other students. "The model allows the presence of peer effects, so that the presence of students of high ability in a given school serves to raise the performance of all students in that school ".Individual's education, therefore, uses free resources and gives origin to free resources. The

possibility of drawing freely from the existing capital of knowledge adds more productivity to the more educated peoples. But these benefits that one draws from the existing human capital of the community derive from non rival uses of free goods and therefore should not be priced. The externalities that educated people originate to others while aiming at their return are related to specific individual costs. Thus the more the social return is higher than the private return, the less the private cost is lower than social cost, the greater the under investment by the individuals and their families in education in comparison with the social optimum. Some kind of education produces more externalities than others, so that it is likely that the under production is more pronounced in some areas of education than in others. The externality argument leads to a diversified approach to the public financing of education.

3.But let me consider a second basic reason why the above proposition about the over production of education in developed economies appears untenable. Human capital does not matter merely as a factor of the production measured in terms of GDP. The good functioning of democracy under universal voting rights requires a good level of education. Education enables to make more informed choices and it is a mean to appreciate goods with a complex technology and culture goods. It is logic that developed nation spend more on education because it is complementary to goods whose consumption as an elasticity to income higher than one. These are not value judgements, are de facto judgements.

But I am not denying that education is oversupplied. If education is undersupplied, in terms of product, nevertheless, it may be over supplied in terms of resources employed. It is not strange that public goods provided by governments may be simultaneously under supplied as for their utility and over supplied as for their inputs and/or physical output. This is a standard reasoning in the theory of (public) bureaucracy. In this light, the voucher system would increase the productivity of education ,by increasing the room of choice on the demand side and the competition not only between private and public schools but also among public schools.

problems shall remain because of the delayed effects of the process of But education and because of the difficulty of measurement of the product. Thus the researches on the productivity of the various schools to which professor Johnes himself has devoted interesting contributions also for the Italian case appear of the utmost interest. It is interesting for us to remark that small universities, with ancient tradition, may be more efficient than the big ones, also as a multi product institutions providing research and/or humanistic education. "Cost differences between universities are particularly pronounced for two of the outputs that we consider, namely non-science students and research activity. Non-science students add a relatively large amount to costs in Genova, Messina, Siena, Trieste and Pavia, while research activity is relatively costly in Milano, Pisa, Siena and Torino. The relatively high costs in these institutions does not (necessarily) reflect inefficiency..... Such institutions typically incur high expenditures which .... also reflect the atypical nature of much of the teaching and research activity that goes on there. The measures of technical efficiency that are yielded by our analysis suggest that such efficiency in Italian institutions is for the most part quite high, though there are exceptions".

4.Le me conclude commenting professor Johnes proposition that "nations that learn well earn well". This is very true. And very important for countries like Italy scarce of natural resources but rich of inherited human capital. But, from the very analysis of Geraint Johnes, of the efficiency of production of education as multi product in the Italian universities, it results that this is not only reason why rational individuals pursue their own education and why taxpayers should finance education. Indeed, education is not valued by the some of the educated only because it allows to maximize their own incomes. They tend to value education primarily because gives knowledge as an end *per se* valid. And, provided that they have an income

sufficient to "satisfy" their basic needs, they tend to maximize their knowledge and *its communication to the others* as intrinsic objectives. To me it does not seem that professor Johnes, who is an highly educated person, has chosen to use his knowledge to maximize his income, but to maximize our knowledge.