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Is Public Education Viable? A brief critical review of neoliberalism in education with a special focus on the Portuguese situation

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A brief critical review of neoliberalism in education with a special focus on the

Portuguese situation [1]

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Abstract

As well as in other social domains, neoliberalism has been invading education. This

trend is leading to a general commodification and to the progressive substitution of

some basic values, as the equality of opportunities, by efficiency and competitiveness.

At the same time, education policies become more and more shaped by strict economic

principles, reflecting the training acquired by decision makers in economics and

economics of education courses. That is why we reject, as a critical social scientist, the

view that the viability of public education could be discussed uniquely on the grounds

of mainstream public economics criteria. On the contrary, that discussion must allow

critical pedagogies and alternative approaches to express themselves. Also mainstream

clichés must be systematically criticized, as we exemplify in the domain of economics

of education. Actually, those are the indispensable complimentary pathways throughout

which we can return to education its full meaning as a social service; and also to

economics of education its legitimacy as a social science.

J.E.L.: H44; I21; I24; I19

Key Words: Public Education; Neoliberalism; Critical Pedagogy; Portugal.

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Resumo

A progressiva invasão da educação, tal como outros sectores sociais, pelas ideias

neoliberais, tem vindo a dar lugar à mercadorização generalizada, bem como à

substituição de princípios base da escola democrática - como o da igualdade de

oportunidades – pelos objectivos de eficiência e competitividade. Este processo

desenrola-se a par da implementação de políticas educativas também elas cada vez mais

marcadas pela tónica economicista, ou não fossem os decisores treinados

maioritariamente pela mainstream economics. Em nossa opinião, há que devolver à

educação o seu estatuto de serviço social, enquanto esteio de uma sociedade

democrática. Para isso, torna-se necessário proceder a uma reavaliação crítica da

educação pública. No entanto, esta não pode limitar-se a um mero estudo de viabilidade

económica, antes deve necessariamente convocar os contributos das pedagogias críticas

e de outras abordagens alternativas às correntes dominantes. Por outro lado, há também

que proceder sistematicamente à desconstrução dos clichés e ideias feitas em domínios

como o da economia da educação, onde se contribui para reproduzir as abordagens

mainstream na formação dos futuros analistas e dirigentes.

J.E.L.: H44; I21; I24; I19

Palavras chave: Educação Pública; Neoliberalismo; Pedagogia Crítica; Portugal.

Introduction

In line with the invasion of the social sciences by neoliberal conceptions, education

sciences are also suffering the imposition of mainstream approaches. The general thrust

of this strong influence has been not only to shape organizational reforms and formal

outputs but also to affect scientific contents significantly.

The impact of neoliberal ideas has become most evident in the running for international

accreditation, formal quality certification, curriculum standardization and ranking of

schools. By invoking the irreproachable purposes of social accountability, the

implementation of such paraphernalia is actually increasingly promoting strong

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competition among schools and universities, not only within each country but also internationally.

Besides these formal and institutional arrangements, public funding and economic policies have also been steadily squeezing public schools and universities. Not only have transfers from the public budget been diminishing - sometimes abruptly as in Portugal today - but also austerity policies have been undermining most families' regular budgets with significant and subsequent impact on university attendance.

Neoliberal ideas have also impinged upon scientific hypotheses and conceptions. This is particularly the case in disciplines like the Economics of Education, as we shall discuss later. In such a context, the exercise and practice of a critical pedagogy becomes an essential means to demystify clichés, to overcome *reductionism and essentialism* (Apple, Au & Gandin 2009) and above all to learn with students how to acquire and build true scientific knowledge geared towards progressive social needs.

In this paper we examine the most prominent manifestations of neoliberal ideology and praxis on education in order to shed light on the harsh attack which is being perpetrated on public education. We focus particularly on the Portuguese situation. In addition, we also pay detailed attention to some clichés brought about by *mainstream* conceptions and try to demonstrate their inconsistencies.

1. What do we mean by "public education viability"?

Two different kinds of answers can be developed to answer the above question: a narrow answer is grounded in a strict economic interpretation of the concepts involved; and a broader one encompasses the social scientist's values and beliefs and derives from his/her auto-representation as a social actor. Neither answer is ideologically neutral.

1.1. From the Economics textbooks...

It is interesting to briefly review the evolution of the concept of "public good/service" in its appearance in the textbooks of economics. The classic definition says that a

public good (or service) is both non-excludable and non-rivalrous; that is to say, no one should be excluded from its use and its use by each individual does not diminish its accessibility to others (Samuelson 1954). Whenever the two principles are observable for all individuals, we are dealing with a pure public good.

Public goods are also characterized by the fact that they lead to positive or negative externalities. One of the major positive externalities from education as a public service is social and economic development. Yet, open access to education promoted by democratic regimes is assumed by most detractors to lead to congestion. This is one of the main arguments behind the imposition of a price (or tax) mechanism to regulate the utilization of public goods.

It becomes quite obvious that education in practical terms has rarely, if ever, been a public good. Even when education is "produced" and provided by public institutions, thereby acquiring the label of public education, rarely can the hypothesis of non-exclusion be observed. Tuition fees clearly exclude from education students who are not able to pay them, and such direct exclusion becomes more acute in situations of economic crisis. Furthermore, indirect exclusion increases in such contexts, appearing in the guise of not being able to pay for textbooks, transportation, adequate clothes or even proper meals.

School arrangements also often prevent the principle of non-rivalry from being observed. An example can be seen in schools organizing (the best) classes on the basis of students' age or place of residence. As a result of these circumstances, the economics of public goods usually defines public education as a mixed good or a club good due to the inability to promote *de facto* non-exclusion and non-rivalry.

As we have mentioned, the most obvious and frequent way to regulate use in order to avoid congestion or to seek private gain is to let the market play. This open avenue for market devices has been the most important channel through which neoliberal ideology and praxis have progressively invaded public education. It is interesting to notice how market mechanisms progressively abandoned their role as mere congestion regulators to become the general rule. One of the first leading manifestations of this conceptual drift is the well known "tragedy of the commons", initially described by Harding (1968): because it is impossible to set a price for such common goods as the air or the landscape, for instance, congestion becomes unavoidable and free riding - e.g. free

consumption, - develops. Harding and his followers initially adopted this kind of argumentation in the field of ecology, but it quickly overtook that domain and spread all over the field of common goods.

Numerous authors have described and criticized this neoliberal influence through which commodification has become the general rule in the provision of public goods even when they are publicly provided. The intrusion of commodification into the domain of public education has been highlighted by the important contribution of Leopoldo Mesquita Nunes with his PhD. Thesis (Nunes 2009).

The view of public education as a mixed good or a club good implies that public education services are social goods/services which are provided as private ones even when they are publicly provided. For that purpose, governments charge taxes and redistribute part of the generated income to finance the production and provision of public education, despite an increasing share of private contributions, which is partly financed by means of fees, especially in higher education. This fact clearly illustrates the role which government – even in democratic regimes – effectively plays in easing market intervention into the domain of the public economy.

Let us turn now to viability. The easiest way to define a good or service as economically viable is to state that it is able to self-finance itself in a sustainable way. This is different from being economically efficient. According to one of Samuelson's conditions, economic efficiency will happen whenever the expected aggregate demand for a public good, or service, equals the marginal production cost. In other words providing education for any extra individual will be financially balanced. Clearly this subtle distinction opens up a large ground for policy options to intervene.

1.2.- A wider and critical approach

In opposition to the above narrow interpretation, critical scientists insist that public education must align with and engage in the pursuit of broader social goals, among which equal opportunities in access to and success in education as well as the deconstruction of mainstream conceptions are to be emphasized.

Despite diversity, two common traits characterize these broader approaches: an alignment with the principles of social equity, equal opportunities and solidarity; and a commitment to build critical knowledge able to eradicate neoclassical and neoliberal conceptual influences in education. In this view, public education should assert itself by means of critical work on and critical thinking about not only formal institutional arrangements but also the drift in scientific contents. Above all, it should lead the movement on behalf of generalized opportunities of access and success.

These kinds of goals are partly inherited from the conceptions adopted by some leading critical scientists, such as Gramsci, who argued the following about public education:

"(...) a truly counter-hegemonic education (...)[should] not throw out "elite knowledge" but reconstruct its form and contents so that it serves genuinely progressive social needs (...)" (Gramsci 1971, apud Apple, Au & Gandin, 2009).

It must be said that these more socially oriented conceptions have not always remained merely theoretical references. In spite of the oppressive framework which characterizes the neoliberal invasion, some very enlightening and enthusiastic practical experiments have been put into practice. One of the more interesting ones is the "Citizen School" of Porto Alegre, Brazil. This experience has drawn the attention of numerous authors such as Gandin (2009), Apple & Buras (2006) and Azevedo et al (2010), who all identify its main outcomes and processes under construction as universal access; the progressive substitution of the standardized curricula and syllabi by the process of articulating between scientific knowledge and popular wisdom; the adoption and building of a critical pedagogy addressed to social change; and interdisciplinarity with action towards breaking down curricular fragmentation.

Of course, the dissemination of good practices like those of the Citizen School is demanding in terms of human, physical and budgetary resources. Notwithstanding, ideology and political options usually constitute the main determinants behind the implementation of these kinds of policies and practices, budgetary restrictions becoming but an easy scapegoat against their adoption. We shall return to this point later. At this stage, it is important to specify what issues are entailed in the implementation of democratic experiences in public schooling:

The ability to effectively promote open access to education, irrespective of the family or individual's income and budgetary resources;

The need for more and better trained teachers, which is inextricably articulated with conditions of recruitment, contractual stability and motivation with which teachers should be attracted;

The regulation of the existing educational markets and their eventual substitution by a system of publicly provided educational resources, especially with regard to access to textbooks and other school materials;

The need for better equipped school facilities that are able to provide for decent meals and minimum levels of comfort and shelter;

That budgetary resources will be subject to rigorous planning, regular funding and open accountability proceedings instead of a progressive choking off of public schools by means of increasing budget cuts, irregular transfers and opacity of eligibility; and

The need for democratic governance.

In view of the above, it becomes obvious how far political and ideological determinants are at stake in the building and preservation of the public democratic school.

2. Policy options

Besides its tremendous impact upon economic and social structures, the global crisis has also been used quite frequently as a scapegoat to justify the profound austerity measures which EU governments have been implementing. In the case of the southern European countries of Greece, Portugal and Spain, these imposed economic policies have led to an "austerity trap" which imprisons any exit strategies and severely condemns growth prospects. But, contrary to the official statements and governments' justifications, there are alternatives to the present economic policies. These alternatives can actually be financed and implemented, provided that adequate policy options are taken. Moreover, in most cases, such options can even be compatible with the leading goal of public deficit control.

In our opinion, these alternatives demand an epistemological and political break with the current neoliberal consensus and praxis. Only such an ideological break will allow public education to assert itself under the broader approach we have been describing. At the same time, alternative policies will pave the way for a true model of sustainable growth in which the leading goals are respect for basic social rights, such as the right to decent and stable employment and open access to and success through education, and respect for the citizens' quality of life.

2.1.- The legal framework

These broader goals are in fact neither an innovative nor rhetorical assumption; rather they are they clearly stated in most countries' basic laws, as is the case of the Constitution of the Portuguese Republic (Assembleia da República, 2005). In Chapter III – Cultural rights and duties, clauses 1 and 4 of Article 73 state, respectively, that "Everyone shall possess the right to education and culture", and that "The state shall stimulate and support scientific research and creation and technological innovation in such a way as to ensure their freedom and autonomy, reinforce competitiveness and ensure cooperation between scientific institutions and businesses." In addition, clause 1 of Article 74 reads that "Everyone shall possess the right to education, and the right to equal opportunities and access to and success in schooling shall be guaranteed". And in clause 2: "In implementing the education policy the state shall be charged with: a) Ensuring universal, compulsory and free basic education; b) Creating a public (...) system; (...) d) Guaranteeing access to the highest levels of education, scientific research and artistic creation for all citizens in accordance with their capabilities; e) Progressively making all levels of education free of charge."

As to public education more specifically, the Portuguese Constitution states in clause 1 of Article 75 that "The state shall create a network of public education establishments that covers the needs of the whole population." Further, with regard to higher education, clause 1 of Article 76 states that "The rules governing access to university and other higher education institutions shall guarantee equal opportunities in and democratization of the education system, with due regard for the country's needs for qualified workers, and to raising its educational, cultural and scientific level."

From the excerpts above, it is clear that most conceptual requirements for the education process as a public service are contemplated in the Portuguese Constitution. In fact, it openly states everyone's right to have access to education, irrespective of income level, albeit their right to success in education is not so clear. Moreover, the constitution specifically charges the government with the role of provider of an inclusive public system, for which a trend towards making education free of charge is even stipulated. Furthermore, this applies not only to all levels of public education, but also to research and development activities.

Despite such provisions in the constitution, the present praxis and education policies are very far from what the Portuguese basic law stipulates. A simple analysis of the more important education indicators as well as of the leading proposals which the present government is trying to bring in is illustrative enough.

2.2.- Policy implications

Despite the enormous improvement which took place during the first decade of the millennium, equality of opportunities throughout education is far from being a reality when we consider educational outcomes such as early school leaving. This situation, which according to Eurostat Statistics corresponds to "the percentage of the population aged 18-24 years with at most lower secondary education and not in further education or training", still ranks high above the EU-21 average, as shown in Figure 1:

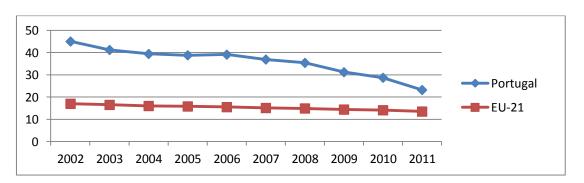


Figure 1: Early School Leaving (%) in Portugal and EU-21 (2002-2011)

Source: (EC 2012). EUROSTAT DATA BASE

(http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=edat_lfse_14&lang=en), retrieved 14 December 2012.

On the other hand, social policies aimed at student support – grants and fellowships – have been severely reduced in scope, particularly with regard to higher education, as Figure 2 clearly depicts:

Figure 2: Percentage of Portuguese Higher Education Students receiving fellowships/grants

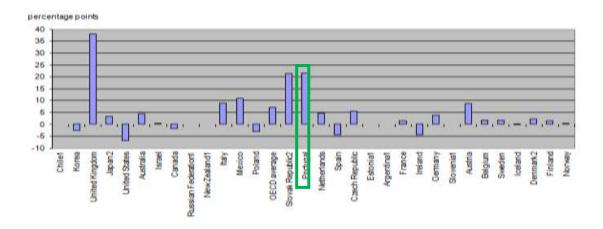
Source: PORDATA (http://www.pordata.pt), retrieved 14 December 2012.

Legend: (A) Público – Public Education; (A) Privado – Private Education.

This trend deeply affects the equality of opportunities now that the severity of the economic restrictions and unemployment levels make it extremely difficult for many parents and students to cope with the expenses related to fees, school books and other educational resources. After several decades, and for the first time in the Portuguese democracy, several cases of hunger are being denounced by teachers, mostly for children in basic education. For many among the latter children, school meals have become now the single adequate meal which they have access to. It therefore becomes socially unbearable to witness the increasing cuts being imposed on the public budget allocated to education by the present government.

But even before the present crisis, the share of the private financial budget in education had already been increasing, mostly in higher education, on account of one of the most meaningful forms of commodification – that which was introduced by the Bologna Reform, as shown in Figure 3:

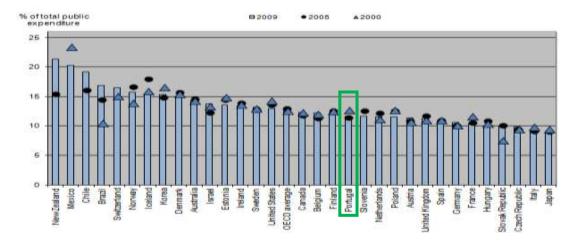
Figure 3: Change (in percentage points) in the proportion of private expenditure on Higher Education between 2000 and 2009



Source: OECD (2012). Education at a Glance (www.oecd.org), retrieved 14 December 2012.

At the same time, public expenditure on education diminished between 2000 and 2009:

Figure 4: Total public expenditure on education as a percentage of total public expenditure (2000, 2005, 2009)



Source: OECD (2012). Education at a Glance (www.oecd.org), retrieved 14 December 2012.

Figures 2 and 3 clearly reveal the juxtaposition of the following trends: the increasing effort displayed by individuals and families to finance higher education and the diminishing support to public education by means of government fellowships and grants

since 2009. After a decade characterized by increasing effort by the government to support public (and private) higher education through social policies, such as grants and fellowships, the last three years have inverted that trend. Comparing Figures 2 and 3 one can easily conclude that families' and individuals' budgetary effort with regard to higher education had been rising even before government cuts to social policies. This trend is probably the outcome of the Bologna Reform. Through the latter, public higher education became even more commodified: the process of curricula shortening in the first cycle combined with an increasing social devaluation of the undergraduate diplomas left students and families with no other option than to finance post graduate training themselves, as the bulk of public financing was allocated to undergraduate degrees. Obviously, higher education becomes increasingly unequal where opportunities of access to and success in constitute the stronghold of the few who can afford it.

At present, invoking the Memorandum of Understanding with the "troika" (IMF, EC and ECB) as justification, the government is suggesting that it might extend fees to basic and secondary education. This suggestion has arisen within the context of a tremendous attack against the social state, which the centre-right government has been perpetrating through highly restrictive economic policies endorsed by the "troika". Its main results are a severe economic recession, increasing unemployment and poverty, as well as a brain drain of the skilled. Even though all the present policy measures are by now becoming unbearable for most of the population and triggering the general squeezing of the middle class, restrictive policies in the field of education will aggravate hard and lasting effects given that reforms in education usually spread their effects over several generations.

3. Demystifying neoliberal clichés – an example

One of the more insidious ways by which neoliberalism tries to ensure reinforcement and survival is through the spread of pseudo scientific hypotheses and approaches. Sometimes hidden behind the argument of the neutrality of science, textbooks, syllabi and classes that are both inspired by and contribute to reinforcing neoliberal ideas have been training successive generations of managers, economists and other social scientists. This deeply rooted influence, which alternative and heterodox approaches

have been trying to demystify and eradicate, finds its ultimate reason in the very nature of the capitalistic accumulation process, now exacerbated by globalization and the reinforcement of financialization.

Recently, the non neutrality of science as well as its contribution to growth models have been restated by Aghion, David & Foray (2009). In Economics, neoliberal theoretical influences have profoundly shaped economic policy, especially in terms of what has been called the New Consensus Macroeconomics (Arestis & Sawyer, 2011) [2]. In the field of Economics of Education the influence exerted by neoliberalism has been particularly remarkable for several reasons. On one hand, education has always offered fertile ground for dominating ideas to propel and develop: power relations and latent conflict which often underpin education and schooling have been able to impose the dominating class's representatives as school directors and tenured teachers (Bourdieu & Passeron, 1990) [3]. On the other hand, effective control exerted upon textbook editors – either by means of captured markets via appointment of official textbooks or prerequisite conditions set by governments in national contests for editors – easily leads to the spread of mainstream conceptions and ideas whereby dominant conceptions can be continuously reproduced (Apple, 2012).

By combining the above several kinds of influences, Economics of Education became a very attractive field for neoliberal doctrines to spread. On account of this, several generations of economists and decision makers in education policies have been shaped accordingly in their conceptions and policy making. In order to struggle against this mainstream ideology and praxis, it is necessary to demystify some of the neoliberal clichés, and this can contribute towards their eradication. Let us consider what happens with the internal rates of return (IRR) to higher education as an example. This issue deserves a closer look given the implications it exerts upon not only educational systems but also labor markets.

Broadly speaking, the IRR offers a measure of the net value of the additional income which one can expect to obtain by taking longer studies, say by taking a first cycle degree instead of being content with an upper secondary diploma. For Portugal, and according to OECD computations, this IRR associated with Higher Education has systematically displayed values above OECD's average, and this has been automatically translated as an incentive for individuals to invest in a graduation:

"(...) men with tertiary education in [...] Portugal [...] can expect to earn at least an additional USD 400.000 over their working lives compared to an individual with an upper secondary and post-secondary non tertiary education (OECD 2011: 162).

But we need to stress some factors and arguments associated with the IRR computation and analysis, which the mainstream approaches do not consider.

By "investing" [4] in more education, individuals and/or families must bear both direct and indirect costs. The former correspond to fees, which, in the case of Portuguese higher education (HE), rank nowadays among the medium to higher values in the European Community once corrected for purchasing power parities (EC 2007). But direct costs must cover books and other study materials as well, besides meals and transportation costs, not to mention installation costs, which have to be met in the cases where students are studying away from home.

Even for students in basic and secondary education Portuguese families are finding it difficult to meet these charges given the restrictions imposed by the present crisis. Hence, it is easy to realize the increasing difficulties to be overcome in the case of higher education (HE). As detailed in section 2.2., social policy addressed to HE is becoming increasingly meager, and students' coverage by fellowships and grants has fallen sharply since 2009. As a result, a large number of Portuguese students are now dropping out of university as they can't afford to continue paying fees, a problem which the council of Portuguese deans has noted with particular concern. Futhermore, even if the indirect costs are not particularly burdensome nowadays, given the lack of employment opportunities which students could aspire to, the direct burden raises the really relevant question: the one that concerns the ability to afford to study further and which, implicitly, unveils the actual inequality of opportunities.

For those who can afford to graduate, IRR calculates the net benefit which they are expected to obtain relatively to those who do not continue studying after the completion of upper secondary. To begin, we must emphasize that only monetary benefits in the form of an increased wage are taken into consideration by these approaches. No other individual benefits – namely learning and knowledge – are deemed to be relevant even though they can contribute to personal and economic development (Kenny, 2010).

Currently, modern development approaches stress the need to separate between further schooling and improved knowledge in view of the fact that the former does not necessarily lead to the latter even when it gets a higher reward. As Hanushek & Woessman (2010) clearly state, only knowledge can foster individual and social progress and economic development.

There are two other assumptions underlying IRR which we must carefully address and deconstruct. The first relates to employment opportunities and the diminishing of these opportunities, which is particularly severe during economic crises. In such a context, employment chances for graduates usually reside in accepting occupations — and pay beneath the level they would usually expect to attain. This outcome, which could in fact be partially reflected by the IRR computed for the years of crisis, does not constitute an incentive de facto to study further. The only reason why the IRR reflects the graduates' "advantage" in such circumstances may well be the fact that average earnings received by people without a degree also become depressed in economic crises.

The second assumption concerns the quality of the eventual employment which graduates can access: with the process of the labor market squeeze, many graduates' occupations are part time jobs and/or short term jobs toggled with unemployment spells. However, the IRR computation is based solely on full time jobs (OECD 2011). Moreover, only structured jobs are taken into consideration. The OECD database obtains the records relative to Portuguese jobs from the Portuguese Employment Survey (M.E.E., annual), an administrative instrument which Portuguese medium and large size firms fill out every October. It so happens that neither small firms – which represent about 80% of Portuguese employment – nor public administrations are covered by this survey. Furthermore only the workers who are employed at the time the firms fill out the survey are recorded. In other words, a great number of temporary workers are excluded from the survey.

In order to partially overcome some of the abovementioned caveats, the OECD uses the unemployment subsidy as a proxy for the unemployment spells. But it is easy to imagine how difficult it is for young graduates to access that subsidy, now that some analysts estimate that it roughly covers only 40% of total unemployment.

The above discussion justifies our deep conviction that IRR values are largely inflated and that this overestimation is deliberately used by the mainstream policies to "justify"

the cuts in public funding to HE, even though this latter argument is not explicitly referred to. In fact, if a obtaining a degree appeared more profitable than it actually is, individuals and families would more easily accept the growing burden they are compelled to bear. Notwithstanding, a most probable outcome for graduates may well be forced emigration, as is becoming increasingly the case in Portugal nowadays.

By means of arguments of the kind, mainstream economic and educational policies kill two birds with one stone: on one hand, they keep on encouraging a steady demand for HE which weighs less and less in the public budget; and on the other, they contribute to maintaining an industrial reserve army made up of graduates, which in the short run contributes to depressing average earnings even for the highly qualified.

Many authors have emphasized that nowadays the social and human sciences constitute critical domains for the deconstruction of neoliberal assumptions and approaches (Jensen, 2010; Chilvers, 2012). As Wodak & Meyer (2009) write:

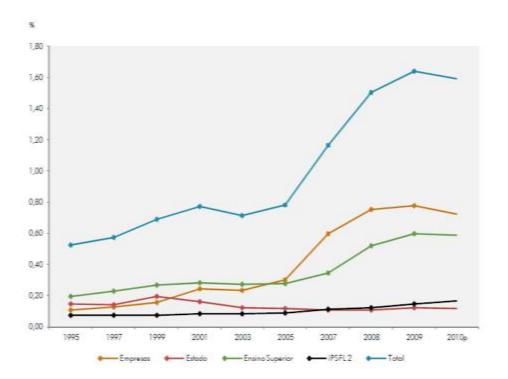
"Critical social research aims to contribute to addressing the social 'wrongs' of the day (in a broad sense – injustice, inequality, lack of freedom, etc.) by analyzing their sources and causes, resistance to them and possibilities of overcoming them (...)" (Wodak & Meyer 2009: 163).

This is probably the main reason behind the severe attack that neoliberalism is carrying out against these scientific domains and which becomes evident when we consider the guidelines in current research and development policies. These guidelines are the focus of the next section.

4. Neoliberalism and science policy

After a significant increase in private and public effort to enhance research and development (R&D), as demonstrated by the evolution of the corresponding percentage in GDP, this favorable trend has been reversed since 2009, as depicted in the next figure:

Figure 5: Expenditure in R&D as a percentage of GDP, by institutional sector (Portugal, 1995-2010*)



Legend: "Empresas" – Firms; "Estado" – Government; "Ensino Superior" – Higher Education; IPSFL 2 – Private non-profit institutions; Total.

2010- estimate.

Source: MEC/GPEARI (2011 a)) *IPCTN10- Resultados Provisórios* (http://www.gpeari.mctes.pt/Media/Default/StatCT/InvDesen/IPCTN10%20-%20Resultados%20Provis%C3%B3rios.pdf access 6/2/2013 ; INE (2011) – *Contas Nacionais* (*National Accounts*).

As can easily be seen from the above Figure, firms and higher education – both public and private – constituted the driving forces in the above trend, contributing to a steady increase between 2005 and 2009. This favorable evolution is reflected in the number of scientific publications; between 2000 and 2010 scientific publications in Portugal increased by 159%, with the result that Portugal ranked in second place, after Luxemburg, in the group of EU-15 countries (M.E.C./GPEARI 2011 b).

When the publications are broken down by scientific domain, we find that between 2005 and 2010 it was in the field of Humanities, followed by Social Sciences, that the largest increase in the number of scientific publications is found, with the corresponding

growth rates for that period being equal to 207% and 151%, respectively (M.E.C./GPEARI 2011 b).

Although the subsequent crisis undoubtedly contributed to the subsequent decline, an important reason behind the decrease in spending on R&D concerns government research policy, particularly that concerning HE institutions.

Most HE research institutions – research centers and associate laboratories – depend on FCT (the Portuguese Foundation for Science and Technology) to obtain funding for the R&D activities they pursue and for that purpose they must submit eligible research projects. Now it so happens that the conditions of eligibility are becoming increasingly strict, with the result that an increasing number of scientific projects have been considered ineligible for funding despite having been classified as "Very Good" or "Excellent" in most rubrics by the FCT evaluation panels. It is also quite obvious that in terms of global funding the scientific policy clearly privileges engineering sciences and technologies, then natural and medical sciences, and only then come social sciences:

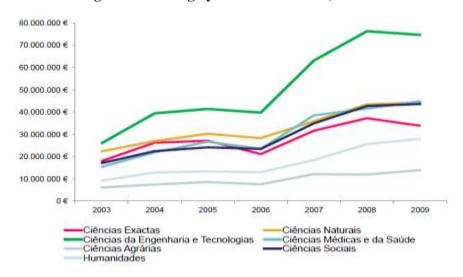


Figure 6: Funding by Scientific Domain, 2003-2009

Legend: "Ciências Exactas" – Sciences; "Ciências da Engenharia e Tecnologias" – Engineering Sciences and Technologies; "Ciências Agrárias" – Agricultural Sciences; "Humanidades" – Humanities; "Ciências Naturais" – Natural Sciences; "Ciências Médicas e da Saúde" – Medical and Health Sciences; "Ciências Sociais" – Social Sciences.

Source: FCT (2010). Estatísticas (http://www.fct.pt/estatisticas/global) acessed 6/2/2013.

This is the trend despite the fact that the percentage of centers in social sciences and humanities largely outnumbers that of exact sciences and engineering: 44% against 34%, in 2011 (FCT 2012).

The domains of science and engineering are also privileged in most public presentations of the scientific policy, as the Programa Ciência 2012 (Science Program 2012) in April 2012 clearly demonstrates, At the presentation the 10 "best practices" in R&D that the Portuguese public authorities selected for commendation were 5 projects in Engineering and Physics, 3 in Biology and Medical Sciences, 1 in Natural Sciences, 1 in Humanities and ... none in Social Sciences. The presentation emphasized that excellence in R&D derived mostly from the ability to attract corporations and multinational firms as partners and stakeholders in the co-funding and marketing of the scientific outputs, which would then become internationally competitive. The 10 cases served as examples of this.

In such public exhibitions, government representatives have been presenting the German Research Foundation (DFG) as a benchmark for FCT funding and scientific decision making. Yet a comparison of 2010 R&D budgets between DFG and FCT reveals that while the latter allocated 22% of their budget to social sciences and humanities, DFG attributed only 15% to these scientific fields. In such a framework, Portuguese social scientists cannot avoid being concerned. The scientific outputs in social sciences are hardly marketable products, and nor is the production of marketable products the purpose or goal in this scientific field. Conversely, social sciences and especially critical social scientists have long endured and technically supported alternative approaches to dominating theories, which include mainstream economics and its blind faith in market values. However, even on that journey they have only been able to count on the few funding crumbs left over from the hard sciences.

Conclusion

Neoliberal ideas and praxis have spread like an oil slick over most domains in the social life and this feature has been particularly acute in education. Over recent decades an onion skin-like process has progressively been perverting public education and making it deviate from its original meaning and purposes, which are deeply rooted in

democracy. Using a metaphor conceived by Lakatos (1976), that perversion has taken care not only of the hard core but also of the successive protective belts which combine to give public education its effectiveness as an instrument for social and economic development.

Deep in the mire, market forces driven by capitalistic purposes soon contributed to hinder open access to and deny equality in opportunities for education, by means of price setting mechanisms to avoid "congestion" and promotion of the private profits of publishers and other educational markets. Not only through policy decisions such as the unified curriculum and the appointment of "official text books", but also by means of cuts in funding and in fellowships, governments themselves carry out most of the work in perverting public education purposes and in protecting market interests. Yet these practices often run counter to the legal framework, which stipulates equal opportunities, open access to and progression towards free education as the ruling principles, as is the case of the Portuguese Basic Law.

This attack on public education would not be sustainable without a powerful ideological support that acts as a protective belt for the core strategy. This has been the role played by mainstream theories in domains such as pedagogy or economics of education, among others. As a social scientist and a professor, our tools to engage in the defense and rehabilitation of public education should therefore also consider the theoretical dimensions through which neoliberal doctrines try to perpetuate practices and reproduce. On one hand, they must stress that scientific knowledge must not be a stronghold serving the ruling classes, but rather it must address, critically analyze and reinterpret real life and common knowledge on the behalf of social and economic progress. On the other, they must strive to eradicate preconceived judgments, reductionist hypotheses and clichés on which several generations of future decision makers have been trained. The example we take from the economics of education – the internal rate of return to higher education – is clearly illustrative of the theoretical mechanisms that have deliberately been used to reproduce mainstream economics.

Despite the attraction exerted by conventional wisdom, which even social sciences have sometimes been unable to refuse, the fact is that the very nature and purpose of that scientific field has represented a major threat to dominating theories and approaches, particularly now that exacerbated capitalism brandishes neoliberal ideas more strongly

than ever. The result has been for decision makers to try either to neutralize critical research in social sciences or to reduce their scientific expression as much as possible. While this attack on the outer skin involving social sectors - among them public education - has in the main been perpetrated by means of severe cuts to funds for research in the social sciences, it has also been carried out by setting them research targets that are clearly inappropriate for their scope and methodologies. By assigning the social sciences the targets of self-funding and delivering tradable research outcomes, neoliberal consensus kills two birds with one stone: it pseudo legitimates the reduction in public spending on R&D, and it contributes to neutralizing critical analysis and scientific support for civic action in defense of the democratic achievements, among which we find public education.

End Notes:

- [1] This paper develops a presentation to the Forum "Defender a Educação Pública", held in University of Minho, Braga, Portugal on 26 October 2012.
- [2] This is clearly shown by Ph. Arestis & M. Sawyer (2011) when discussing, among other effects, the impact exerted by income redistribution policies upon the level of aggregate demand:"... there is no mechanism whereby market forces would propel the level of aggregate demand to any supply-side determined equilibrium" [italics in the original].
- [3] See, for instance, Pierre Bourdieu & Jean-Claude Passeron (1990). *Reproduction in Education, Society and Culture*, 2nd. Ed., London: Sage.
- [4] The term "investment" directly refers to the theories of human capital for which IRR stands as one of the leading concepts.

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