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Some “unexpected proximities” between Schultz and Galbraith on human capital

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Abstract:

This contribution highlights some unexpected proximities between Galbraith and Schultz’s thoughts on human capital. Despite apparently strong methodological divergences, both authors analyze the issue of human capital investment in the light of the dynamics of the economic development process. This issue is formulated in Galbraith’s vocabulary in terms of the requirements of the planning system, and in terms of the needs of production activities deriving from the dynamics of growth in Schultz’s. But the logic underlying their analysis is of the same order. The emphasis on the needs of production leads the two authors to address the issue of student sovereignty in making allocative decisions regarding education.

By highlighting these proximities, our study shows that Schultz’s thought on human capital must not be conflated, from a methodological point of view, with Becker’s and Mincer’s. We thus question the idea that the human capital research program is characterized by strong methodological unity, in particular that it is characterized by methodological individualism. That Becker and Mincer’s works rely on methodological individualism is not called into question; the idea that Schultz’s thought is grounded on it deserves more careful examination.

Keywords: Human Capital, Education, Schultz, Galbraith, Methodological Individualism

JEL Classification: B41 – H52- I15 – P46

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Introduction

The so-called “human investment revolution” (Blaug, 1976: 850) or “human capital revolution” took root during the late fifties, spurred on by the works of Theodore Schultz (1959, 1960, 1961), Gary Becker (1962, 1964) and Jacob Mincer (1957, 1958). It began to establish itself through the publication of the special issue of the *Journal of Political Economy* in October 1962. Four years later, Kiker identify the ancestors of the human capital revolution in his study “The historical roots of the concept of human capital” (Kiker 1966). And a decade further on, the human investment revolution had become firmly inscribed into the history of the economic thought. To adopt Lakatos’s methodological framework, Blaug had fixed the “hard core” of the human capital research program. This relies on two assumptions: that “people spend on themselves [...] for the sake of future pecuniary and nonpecuniary earning” (Blaug, 1976: 829); and also that the program should be grounded on methodological individualism,² that is on “the view that all social phenomena should be traced back to their foundation in individual behavior” (Blaug, 1976: 830).

In this paper, we question Schultz’s adhesion to methodological individualism by highlighting some unexpected proximities between Schultz’s and Galbraith’s thoughts on education. Galbraith’s reflections are in fact grounded on the idea of “human capital”, which he uses as a metaphor³ rather than a well-defined concept.

The reader who is familiar only with the recognized theorists of human capital might be surprised by this. The reader only familiar with Galbraith might be too. Galbraith never wrote a book on education; he does, however, deal with this matter in almost all his major works.⁴ Moreover, he is considered one of the first to have used the term “intellectual capital” (Bontis, 2001: 42). As early as 1951 he argued that “investment in human beings” is necessary for economic progress in an underdeveloped country (1951: 694). In *The Affluent*

² For a critical review of the meanings associated with methodological individualism, as well as its contradictions, see Hodgson (2007a).

³ On “human capital” as a metaphor, see (Teixeira 2005).

⁴ Pressman (2007, 2008), Dunn (2010) and Dunn and Pressman (2005, 2006) have recently discussed some of Galbraith’s contributions on educational issues.

Society, one of his best sellers, he uses the term “personal capital” to refer to “investment in [men and women’s] education, training and opportunity” ([1958] 1999: 202).⁵

The originality of Galbraith’s argument lies, as we show, in his institutionalist and firm-based approach to the evolution of education. At first glance, this fact should serve to firmly disconnect his work from the recognized theories of human capital, which are acknowledged to be grounded on methodological individualism. Nevertheless, Galbraith sought in 1951 to analyze education as investment rather than consumption, which is precisely the essence of the human capital revolution. But because he places great emphasis on the issue of the requirements of the planning system when he tackles the issue of human capital investment, his approach also differs from human capital theory. In fact, Galbraith clearly rejects the idea that the individual choice model can be a convincing basis for a theory of the supply of education. For different reasons, the same applies to the radical school.⁶

Surprisingly, since he is recognized as one of the main actors in the human capital revolution – indeed as its founding father⁷ – Schultz’s analysis of human capital apparently shares some ground with Galbraith’s account of human capital investment. In a series of contributions published in the 1970s wherein he addressed the issue of the optimal allocation of education resources, Schultz also put great emphasis on the needs of the dynamics of the growth process. Although the terminology differs, the logic underlying Schultz’s and Galbraith’s approaches is the same. Both authors raise doubts regarding the idea that the aggregation of individual choices must be regarded as the relevant generative mechanism of the dynamic of education and the basis of the allocation of education resources; and both take issue with the idea of student sovereignty. On this basis, we question Schultz’s adhesion to methodological individualism. We do not claim of course that Schultz was committed to an institutionalist approach to education, but we do maintain that his methodological proximity to Becker’s approach is not so obvious.

The paper is organized as follows. The first section presents Galbraith’s conception of the economic value of education. The second deals with the “unexpected proximities” that unite Galbraith and Schultz’s arguments. Based on these proximities, in the third section we challenge the accepted view of the unity of the human capital research program, and the

⁵ Dunn, as far as we know, is the only author to have seen that Galbraith presents “one of the earliest statements of human capital theory” (2010: 52).

⁶ See Bowles and Gintis (1975), Bailly (2016).

⁷ See Bowman (1980).

alleged adherence to methodological individualism, which implies that the student is sovereign.

Section 1: Galbraith and the Human Capital Revolution

The concept of human capital, or “hard-core” of human-capital research program, is the idea that people spend on themselves in diverse ways, not for present enjoyments, but for the sake of future pecuniary and nonpecuniary returns. [...] All the phenomena – health, education, job search, information retrieval, migration and in-service training – may be viewed as investment rather than consumption, whether undertaken by individuals on their own behalf or undertaken by society on behalf of its member. (Blaug, 1976: 829)

According to the characterization presented in the above quotation from Blaug, there are two reasons why Galbraith should be considered a participant in the human-capital research program, even though this fact has never yet been clearly noted. First, when studying the underdevelopment of public goods and services as compared with private ones, that is to say “the social imbalance”,⁸ he highlights that “investment in human beings is, *prima facie*, as important as investment in material capital” ([1958] 1998: 201). Noting that these two forms of investment are complementary, he then remarks that “nearly all of the investment in individuals is in public domain” because of the State’s funding and organization of education (1998: 202). The concept – used in 1958 and defined prior to this – of “personal capital” is thus essentially related to education for Galbraith, even if he sometimes takes into account health services as well (1951: 694, 1984: 36).⁹ In his later works, we note indeed that he uses the traditional expression “human capital”.¹⁰

The second reason why Galbraith should be seen as a participant in the emerging human capital research program is that he clearly points out that education paves the way to increasing pecuniary returns. He states in fact that education, like capital investment, must face the test of determining “whenever the return to additional investment is sufficient to cover the adding cost including interest and some allowance for risk” (1960: 47). He is also aware that this kind of “investment in personal development is handicapped by the lack of close relationship between outlays with the resulting benefits” (1960: 46).¹¹ This reasoning in

⁸ See *The Affluent Society*, Chapter 17.

⁹ On this matter, see Hodgson (2007b: 6) and Dunn (2010: 47)

¹⁰ See for instance Galbraith (1983, 1984).

¹¹ This issue is also discussed by Schultz (1967: 300)

term of increasing return recalls Becker's model of investment in human capital (1962, 1964). From the viewpoint of the individual, Galbraith insists on returns provided by education that are not solely pecuniary, such as protection against unemployment or social mobility ([1967a] 2007: 294-296); and he also applies this investment reasoning at the national level. Agreeing explicitly with Schultz, he puts forward that "a dollar or a rupee invested in the intellectual improvement of human beings will often bring a greater increase in national income than a dollar or a rupee devoted to railways, dams, machine tools, or other tangible capital goods" (1962: 49). In brief, Galbraith shares the first assumption of the hard-core cited above: a schema on which education "may be viewed as investment" (Blaug, 1976: 829).

Our thesis that Galbraith is a participant in the human-capital revolution can be confirmed by analyzing Kiker's 1966 review, "The historical roots of the concept of human capital". Kiker lists six motives that have led past economists to treat human beings as capital (1966: 481).¹² Of these Galbraith is concerned with four: "to demonstrate the power of a nation",¹³ "to determine economic effects of education",¹⁴ "to propose tax schemes"¹⁵ and "to awaken the public to the need for life and health conservation"¹⁶ (Kiker, 1966).¹⁷ Concerning the latter, Galbraith unceasingly repeats that economic progress, in a broad sense, comes from "public education and popular enlightenment" (1962: 8). Thus, his vision of education extends beyond narrow economic considerations framed in terms of productivity. In particular, Galbraith thinks that economic knowledge must be broadcast throughout society in order to struggle against what he considers as economic failures (1936: 474).¹⁸ These points

¹² Note that Galbraith never valued human beings in monetary terms, unlike other notable writers on this matter (Kiker, 1966). This is doubtless one reason for the lack of interest with which Galbraith's conception was received.

¹³ See Galbraith (1951, 1962).

¹⁴ See Galbraith (1962, 1958, [1967a]).

¹⁵ See Galbraith (1960, [1967a], 1967b). See also his 1967 interview to *Playboy Magazine* (in Stanfield & Stanfield, 2004: 55-56)

¹⁶ See Galbraith (1958, 1960, 1983)

¹⁷ The two others motives listed by Kiker are "to determine the cost of war" and "to aid courts and compensation aid in making fair decisions in cases dealing with compensation for personal injury or death" (1966: 481).

¹⁸ That is the reason why he accepted the production of the series *The Age of Uncertainty*, even though he had limited belief in the educational potential of television (Galbraith, 1982).

notwithstanding, it clearly appears that he shares with those several past economists the concerns that led them to view education as an investment.

In addition to those six motives, Kiker highlights three other reasons that have emboldened economists to include human beings within the concept of capital (Kiker, 1966: 485): education generates “real costs”; educational activities contribute to the national wealth; and, lastly, educational effects that increase human productivity also increase national wealth (Kiker, 1966: 485). Once again, Galbraith is also concerned with these three reasons. First, his Keynesian conception of public polices insists on educational expenditures (Pressman, 2007: 460). Second, in studying underdeveloped countries, he recalls that education is an important factor – perhaps even the prime factor –¹⁹ in bringing about an increase of wealth:²⁰ “Literate people will see the need for getting machines. It is not so clear that machines will see the need for getting literate people. So under some circumstances at least popular education will have a priority over the dams, factories, and other furniture of capital development” (1962: 9).²¹ Third, he stresses the crucial role played by (higher) education in the planning system, since the success of mature corporations ruled by the technostructure relies on “organized intelligence” ([1967a] 2007: 459).

That Galbraith views education as an investment in human beings is therefore clear. However, this does not mean that there is no difference between him and the recognized human capital theorists. One important difference concerns the reason why he considers education as investment. For Schultz (1960: 571) and Becker (1962: 9), the idea that education is an investment is a basic hypothesis of their work; whereas Galbraith adopts this

¹⁹ Obviously, Galbraith is fully aware of the cumulative causation between economic development, defined as a process, and the development of education. He highlights, as did his “lifelong friend” Gunnar Myrdal (Parker 2005: 101), that here there is a vicious circle: “it is said that the country is poor because it lacks trained, educated, or experienced technical and administrative talent” but “educated manpower is likely to be scarce in a country that has been unable, because of its poverty, to afford an educational system” (Galbraith 1984: 19). Nevertheless, concerning developing countries he is convinced that education first enables economic development rather than that development enables education (Galbraith 1983: 16).

²⁰ Of course, Galbraith’s argument about development is not reducible to economic considerations. He tries, for instance, to furnish an explanation about the change in behaviour generated thanks to education in these countries. He thinks in particular that education breaks “the accommodation to poverty” (1984). On Galbraith’s analysis of development, see Adams (1984) and Peach (2008).

²¹ This sentence is illustrative of the Galbraithian style. See Beishuizen (1989)

idea out of pragmatic considerations.²² The historical development of the planning system has increased the need for skilled workers in mature corporations, and “organized intelligence” has become one crucial factor of production.²³ Education performs a function that implies one can fruitfully see it as an investment:

A century and more ago, when education was not intimately related to production, men sensibly confined the word investment to the increases in capital which brought a later increase in product. Education was correctly regarded as a consumer outlay. The popular usage has never been revised. (Galbraith, 1998: 204)

This is the first reason. The second is related to the original aim of the research. Becker, for instance, tries to understand the influence of expected earnings on educational behavior (1962: 9), while Mincer seeks to account for personal income distribution (1958). Hence these research projects are both trying to give theoretical foundations to empirical observations, and so explain agents’ behavior in terms of educational supply and demand. One can thus understand why Blaug’s analysis of the hard-core of the human capital posits a key role for the assumption of methodological individualism. Galbraith’s own purpose is not far from these preoccupations, but his institutionalist background²⁴ leads him to see education as investment for pragmatic reasons, and in view of its practical consequences. Since education “brings large increases in production” (1962: 49), it should be viewed as investment, especially in underdeveloped countries.

When we think of education as a consumer service, it becomes something on which we should save. Savings are necessary for investment, and savings are obtained by economizing on consumption. But when we think education as an investment, it becomes something we should emphasize. We seek to expand investment. (Galbraith, 1962: 48)

According to Galbraith, then, adopting a point a view on which education is considered as investment rather than consumption is the best way to struggle against underinvestment in education, and hence promote development. And this question of whether to view education

²² On Galbraith’s realism, see Dunn & Mearman (2006).

²³ On this matter, see Marris (1968), James Galbraith (1984) and Baudry & Chirat (2017).

²⁴ See Gruchy (1978), Galbraith (1984), Hodgson (2000, 2001), Dunn (2002), Stanfield & Wrenn (2005)

as investment or consumption is also explicitly present in Schultz's works (1961). This is one of the "unexpected proximities" between their works that we seek to expose and explain.

Section 2: "Unexpected proximities" between Galbraith and Schultz: The dynamic of the educational process and its explanation

The proximities between Galbraith and Schultz's analysis of the economic value of education can be explained first by contextual circumstances. They belong to the same generation of American economists, and were both trained in Agricultural Economics, receiving PhDs on this subject at the turn of the thirties.²⁵ They also worked alongside each other in the Farm Bureau in the early forties, although Galbraith was quickly moved to take part in the National Defense Advisory Commission (Parker, 2005: 115-121). Thus, they belong to the group of economists shaped by the New Deal experiment. But their relationship goes further: in 1938 Schultz even offered Galbraith an academic job in Iowa State. Parker remarked, not without humor, that "Schultz, whose later work led to a Nobel Prize, is remembered by economists for a second, unique distinction: he is the only department chair known to have offered jobs to both Galbraith and (after Schultz moved to the University of Chicago)^[26] Milton Friedman" (Parker, 2005: 107). In 1946 they became competitors. Galbraith ran for a new professorship at Harvard, but finished "third in the voting behind Jan Tinbergen and Theodore Schultz" (Parker, 2005: 226). He finally attained that post ten years before the publication of *The Affluent Society*.

Knowing this, it may be rather surprising to learn that they did not have much contact academically. Schultz's (1979) only important concern with Galbraith's work is a review of *The Nature of Mass Poverty* ([1979] 1984), in which he states that Galbraith's views on India are outdated, concluding with sarcasm, "some types of intellectual capital have a high rate of obsolescence" (Schultz, 1979: 114). On the other hand, Galbraith seems to have been more concerned by Schultz's work.²⁷ Concerning agricultural economics, he reproaches Schultz, as he reproaches all neoclassical economists²⁸, for reasoning with the "full-employment

²⁵ Galbraith gained his Ph.D. in 1933 at Berkeley (Parker 2005), Schultz in 1930 at Wisconsin (Walker 2008, Teixeira 2010).

²⁶ He moved to Chicago from Iowa State in 1943 (Rutherford 2010: 32).

²⁷ For instance, he wrote a review, not without reproaches, of Schultz's (1949) book.

²⁸ On the influence of neoclassical economics on the economics of education, see Teixeira (2005, 140).

assumption – even though explicit allowance for depression is made” (1954a: 745). Indeed, Galbraith considers that theories relying on such a hypothesis sever their relation to the real world.²⁹ However, Galbraith does not hesitate to refer to Schultz’s achievements on agricultural or educational matters (notably Schultz 1949, 1953, 1959, 1963; see Galbraith 1951: 692, 1954: 43-47, 1962: 49, 1983: 50).³⁰ He even pays him explicit tribute, arguing that all economists interested in explaining growth are “in debt” to Schultz because of his treatment of improvements in the skills and abilities of workers (1960: 45).³¹ This common emphasis on education as investment and its results as capital³² thus emerged from common preoccupations and objectives: resolving the problem of agricultural poverty and understanding the generative mechanism of growth – the famous puzzle of growth expounded by Solow (1956, 1957). This context during the sixties was besides favorable since “the efforts to clarify the sources of economic growth created a space of convergence between economic growth and human capital theorist” (Teixeira, 2000: 262).

Galbraith develops a theory of the firm³³ and a theory of consumption³⁴ that are institutionalist.³⁵ His approach to the nature of education maintains this institutionalist stance. In the *New Industrial State*, he explains that corporations need “specialized talent” and “organized intelligence” to face with the complex requirements of technology (2007). “In the

²⁹ Galbraith (1973).

³⁰ In his 1954 article, Galbraith deals with economists’ criticisms of support for agricultural prices. He explains how Schultz’s “persuasive work” draws attention to the role of the free movement of prices in the efficient allocation of resources. Nevertheless, Galbraith supports price controls and criticizes Schultz’s position using Keynesian logic, while recognizing the faults of current policies.

³¹ In this respect, it cannot be stated, as Dunn and Pressman (2005: 189) and Dunn (2010: 52) do, that Galbraith’s views on education are prior to Schultz’s. Galbraith’s views seem rather to have come from Schultz’s work. Concerning Galbraith’s priority over Becker, they may be right.

³² While Schultz (1960, 1961a, 1961b) insists on this last point and develops the analogy, this is not the case for Galbraith. Certainly, he speaks about “ownership of ability, knowledge and brains” but he precisely contrasts this kind of ownership with the “ownership of capital” (1960:40). The difference relies on the fact that Galbraith does not try to quantify the return from education, since he views education as investment purely for pragmatic purposes, in order to influence public policy, whereas it is a primary hypothesis in Schultz’s work.

³³ See Baudry & Chirat (2017).

³⁴ See Dunn & Mearman (2006) and Chirat (2017).

³⁵ On Galbraith’s institutionalism, see James Galbraith (1984), Hodgson (2001) and Standfield & Wrenn (2005).

mature corporation, the decisive factor of production, as we have seen, is the supply of qualified talent” (2007: 347). Galbraith here concurs with Veblen’s view on the importance of intangible assets.³⁶ Veblen wrote at the beginning of the century that “gifted, trained, and experienced technicians who now are in possession of the requisite technological information and experience are the first and instantly indispensable factor in the everyday work of carrying on the country’s productive industry” (1921: 133). Obviously, it is the education system that provides the manpower needed by corporations. Either the manpower is already generated by the school system, or it is educated in such a way that it can be generated through experience within the corporation (on-the-job training).³⁷ Galbraith provides an accurate account of the manpower needs of mature corporations:

The manpower requirements of the planning system are in the shape of a tall urn. It widens out below the top to reflect the need of the technostructure for administrative, coordinating and planning talent, for scientists and engineers, for sales executives, salesmen, those learned in the other arts of persuasion and for those who program and command the computer. It widens further to reflect the need for white-collar talent. And it curves in sharply toward the base to reflect the more limited demand for those who are qualified only for muscular and repetitive tasks and who are readily replaced by machines. (Galbraith, 2007: 295)

Galbraith thus argues that general education must take priority over specific technical training.³⁸ One can note that this distinction is also present in the human capital research program (Blaug 1976, 831). In developed countries, general and higher education is essential for two reasons. First, general knowledge is a necessary skill for the members of the technostructure to be able to manage the planning process and to adapt to “unscheduled development” (Galbraith 2007: 29). Second, a high level of education promotes a sort of Veblenian “idle curiosity” that paves the way for research and innovation (Galbraith, 2007: 445-447). Consequently, a good general education is on the one hand a condition of the coordination of specialized talent within the corporation, and on the other hand a prerequisite

³⁶For a discussion of this matter, see the controversy between Rutherford (1993, 1981) and Leathers and Evans (1993).

³⁷Galbraith (2007: 297). For development in on-the-job training, see Mincer (1957).

³⁸ Adolf Berle, an author admired by Galbraith, had defended the same position fifty years earlier: “Education is always education first, whatever the ultimate result it designed to be. Vocational education should always have the emphasis upon the education and only secondary upon the vocation” (Berle, 1910: 653).

– “the first step” – in specialization and adaptation to technological change. “Given good general education, the way is open for more sophisticated technical, scientific, or administrative instruction” (Galbraith 1983: 20).

Thus, it can be said that corporation expresses its needs to the educational system, which responds “with a lag, which is partly in the nature of any social response” (2007: 296). In other words, corporations express a demand for trained manpower and the education system supplies it. The potential lag explains some of “the vacancies in positions requiring high and specialized qualifications” (2007: 300). And it is because of this struggle against the mismatch of competences, which produces unemployment, that Galbraith insists on the importance of a high level of general education. He is fully aware that the more years are spent in school, the lower is the risk of being unemployed by the planning system.³⁹ Therefore, education policies combined with a better mobility of manpower could reduce structural unemployment, that is to say unemployment which does not result of a “slackening aggregate demand” (2007: 301). Galbraith here anticipated the development of the matching model of unemployment.⁴⁰

By studying the link between corporations and the education system, and situating this relation within the greater economic system, Galbraith not only makes proposals for reducing every kind of unemployment, but also seeks to explain the evolution of industrial and educational structures. Nevertheless, such a mode of analysis, relying on the requirements of technology and conferring a central role to corporations rather than individuals, seems at first glance to destroy Galbraith’s links with the human capital research program. Blaug in fact indicates that “nothing is more alien to the human capital research program than the manpower forecasters’ notion of technically-determined educational requirements for jobs” (1976: 846). However, Schultz’s works contain insights that challenge Blaug’s claim.

Just after the publication of the *New Industrial State*, Schultz wrote in fact an article in which he recognized that “most institutions that perform economic functions undergo change in response to the requirements of the dynamics of economic growth” (1968b: 1116). Although at first he argues that the study of these responses is not his subject, he states few

³⁹ Specifically, Galbraith says: “And without doubt, the opportunities for employment of those with a minimal educational qualifications are better outside the planning system. The service industries, construction and agriculture still have a substantial continuing requirement for common labor” (Galbraith, 2007: 297).

⁴⁰ For an illustration of Galbraith’s system of analysis, see Annex 1.

pages later that the “rise in the value of human agents is wholly a consequence of the type of economic growth that characterizes [the economy of the United States]” (1968b: 1121). Galbraith’s analysis starts with the requirement of technology, which leads to an increase in the corporations’ demand for high qualifications, then an increase in educational supply, and finally an increase of trained and skilled manpower. Schultz’s reasoning, even though he speaks of “growth” in a general manner, rather than the requirements of the “planning system”, relies on the same logic:

In approaching the problem of investing in man, the key assumptions are that economic growth is of a type in which the production activities *require*^[41] relatively more high skills than formerly and that the demand from these activities increases the rate of return to investment in human agents. Again we ask: What are the institutional implications? Looking back, it would appear that our system of education has been flexible in expanding supply of education services sufficiently to accommodate the private demands of middle and upper income families. (Schultz, 1968b: 1121)

Of course, our objective is not to affirm that Schultz was an institutionalist,⁴² even a maverick one,⁴³ but the reader can observe institutionalist leanings behind the neoclassical language. Two points should be noted. First, his explanation of the dynamic of the education process is very close to Galbraith’s, since it is grounded on the requirements of our type of growth. Second, because he lays emphasis on the requirements of growth, and because growth is a dynamic process which renders existing specific skills quickly obsolete, Schultz insists, as does Galbraith (1983: 20), on the importance of general rather than specific education. General skills are in fact less subject to obsolescence than specific or technical skills.

It should be said that our task as educators is to provide instruction which will best serve students in adjusting their skills to the rapidly changing economy in which they will live. Thus, we ought to give a low rating to instruction that is specific. We ought to give a high rating to learning principles and theories. We should give the highest priority to instruction which is devoted to problem solving using analytical methods. (Schultz, 1967: 306)

Changes in the demand for skills are an obvious attribute of our type of economic growth. New techniques of production require new skills, and old skills become obsolete. It should be possible to develop programs of instruction that would provide additional

⁴¹ Our emphasis. This verb is often used by Galbraith.

⁴² Schultz was Commons’s student, however, and Walker even argues that Commons was his “mentor” (Walker 2008:1-2).

⁴³ This expression is used by Hodgson concerning Knight (2001b). On Knight’s influence at Chicago, see also Rutherford (2010).

flexibility in the ability of the student to reform and renew his skills in adjusting to the changes in the demand for them. (Schultz, 1972a: 35)

The main – and crucial – difference between Schultz and Galbraith is that Schultz insists on the fact that the requirement of growth has an impact on the rate of return to educational investment. He nevertheless points out that the human capital research program did not pay much attention to this relationship: “The interactions between economic growth and the marginal benefits measured by the rate of return to students on each additional dollar of investment in higher education are complex, and they have received all too little analytical attention” (Schultz, 1972b: 16).

At the theoretical level, this rate of return influences individual choices regarding education, and must therefore determine the demand for education. So, through the role assigned to the rate of return to human capital investment, the relationship between the dynamic of growth and the dynamic of the education process is grounded on individual choice and on individual behavior. From this point of view, Schultz’s analysis appears to fall within the ambit of methodological individualism, which is shared by his colleagues at Chicago.⁴⁴ But, for this methodological positioning to be convincing, it requires that Schultz consider it credible that students respond to the evolutions of the rate of return, and thus to the requirements of the dynamic of economic growth. This is exactly where the problem lies. When Schultz turns to practical considerations about the allocation of education resources, his analysis weakens the consistency of this methodological positioning.

Section 3: Student Sovereignty and the Questioning of Methodological Individualism

As originally formulated by Schultz, Becker and Mincer, the human capital research program was characterized by “methodological individualism”, that is, the view that all social phenomena should be traced back to their foundation in individual behavior.⁴⁵ For

⁴⁴ In his work in the 1970s, Schultz once again pays explicit tribute to Becker’s theoretical model of investment in human capital, developed in the 1960s (1962, 1964, 1967).

⁴⁵ Formulated this way, it seems that Blaug defines methodological individualism as the idea that social phenomena are “fully explained in terms of individuals alone” rather than being “explained in terms of individuals plus other critical factors, including interactions between individuals” (Hodgson, 2007a: 215). Hodgson provides a criticism which applies to both meanings of methodological

Schultz, Becker and Mincer, human capital formation is typically conceived as being carried out by individuals acting in their own interest. (Blaug, 1976: 830)

The emphasis on individual choice is the quintessence of the human capital research program. (Blaug 1992, p. 209)

That Galbraith's reasoning is not characterized by methodological individualism is incontestable. It is similarly unchallengeable that Becker's works do rely on it, whether on education (1962, 1964) or other matters (Mulligan 2008), and this has already been convincingly illustrated. But the idea that Schultz's thought is grounded on methodological individualism deserves more careful examination.

In considering the question of the optimal allocation of education resources – an issue to which he devoted much attention in his 1970s work⁴⁶ – Schultz claims that resource allocation is plagued with inefficiency. According to him, the allocative guide should be the rate of return to investment:

The growth problem, thinking in terms of economic decisions, requires an investment approach to determine the allocation of investment resources in accordance with the priorities set by relative rates of return on alternative investment opportunities. It is applicable not only to private decisions but, also, to public decisions guided by economic planning. The production and distribution of public goods (services) are a necessary part of the process. (Schultz, 1970a: 301)

For Schultz, inefficiencies in the allocation of education resources are the consequence of information failures: “The practical difficulties in using this concept [the rate of return to investment] in education are predominantly consequences of a type of organization which is not designed to provide most of the necessary information and which lacks strong incentives to use the available information” (Schultz, 1968a: 336).

individualism and leads to the crucial question of the emergence of the institution. He shows that the second version is “equivalent to the proposition that explanations of social phenomena should be in terms both of individuals and social structures”, so that calling it methodological individualism is problematic (2007a: 223).

⁴⁶ Schultz 1967, 1968a, 1968b, 1970a, 1970b, 1971, 1972a, 1972b. During the seventies, Human capital approach was “seriously challenged” by the screening theories and the issue of overeducation (Teixeira, 2000: 265-268)

Like all neoclassical economists and particularly his colleagues at Chicago,⁴⁷ Schultz (1968a) interprets the problems of misallocation in terms of misinformation and *misguided incitations*. He thus immediately proposes organizational changes which would bring the educational reality more close to the “ideal” or “optimal”⁴⁸ model.⁴⁹ Nevertheless, these considerations finally lead him to raise the crucial question, also raised by Galbraith, regarding the so-called sovereignty of the student. In fact, on a different occasion Schultz writes:

Who should make these allocative decisions? Who is best qualified? There are those who contend that students and their families are best qualified. To support this contention, they appeal to consumer sovereignty and to private self-interest for privately efficient investment in education.^[50] Others contend that there are external economies or social benefits that accrue not to student but to others in society and that these decisions can best be made by public or other social bodies. (Schultz, 1968a: 341-342)⁵¹

Recalling Blaug’s definition, Schultz explains that “the key to student sovereignty is the private self-interest of students”. Nevertheless, student sovereignty faces two problems. The first is that for the self-interest of students to bring about an efficient allocation of investment resources, no less than four conditions must be met (Schultz, 1968a: 342):⁵² (1) Competition in educational services, (2) Optimal information, (3) Efficient capital market and (4) The absence of external economies. The existence of external economies is very problematic: “when this box is opened, we are in trouble” (343). The second challenge to student sovereignty lies, according to Schultz, in the second condition: “if students’ sovereignty has an Achilles heel; it is in the domain of information, a long-standing controversial issue as unsettled today as it was when classical economists divided on the issue” (342).

⁴⁷ See Gintis (1972). Rutherford explicitly states that Schultz belongs to the neoclassic economists (2010: 35). One should note that the economics of information is characteristic of the thoughts of Stigler, Becker and even Friedman.

⁴⁸ The language of human capital theorists recalls that used by the welfare economics programme up until the fifties. The historian of economics might think that the human capital research program is one of its ramifications.

⁴⁹ See also Schultz (1971, 1972).

⁵⁰ But, as Schultz mentions earlier, there is also public investment in education.

⁵¹ See Schultz (1971: 6).

⁵² See also Schultz (1970b: 45-6; 1971: 6)

Schultz doesn't call into question students' rationality *per se*, but casts serious doubt on the ability of students to be efficient, given how education is organized. On the cost side, inefficiencies come mainly from the fact that students are not confronted with prices which reflect the real cost of producing educational services. On the returns side, private rational choice appears even more challenging. Lack of information on starting salaries, and uncertainty about the innate ability of students and their motivations makes it difficult to estimate the returns to education. As a consequence, efficient private decisions don't necessarily lead to social efficiency.

But the crucial challenge to student sovereignty, in Schultz's analysis, comes from the fact that economic growth is a dynamic process which impacts on the rate of return to education investments and which is marked by radical uncertainty. Efficient individual choices require a capacity to forecast this dynamic and to respond to it. This would require a large temporal horizon. But students' horizons are short, and more seriously they are *ex post horizons*. This leads Schultz to a strong conclusion: "It is *impossible* to predict lifetime earnings; for the student to do so he would have to predict the changes in the demand for his type of education and the supply consequences of the decisions of others like himself to enter his particular field on his earnings up to 40 and more years ahead" (Schultz, 1967: 303, our emphasis). This problem applies equally to the public bodies that organize schools.

While Schultz doesn't reject the idea that students respond to changes in the rate of return – which would have directly challenged the relevance of Becker's approach to human capital investment⁵³ – he considers that individual investment decisions in human capital cannot lead to an optimum outcome at the aggregate level.⁵⁴ Because his analysis lays emphasis on the dynamic nature of the growth process, he rejects the idea that students' private choices should be an allocative guide where educational resources are concerned. This perspective doesn't contradict Becker's model as a framework for explaining students' investment choices in education *per se*; but nevertheless it indicates a strong methodological

⁵³ "If these responses were nil, it would be pointless to attribute any behavioral importance to these rates of returns as allocative guides in the area of education. Such a lack of response on the part of students and schools would imply that the concept of investment in education is meaningless in terms of such economic behavior or that our measures of the rate of return to education are wrong. But what we observe is not a lack of response." (Schultz, 1967, p. 303)

⁵⁴ Note that the issue under consideration is not the traditional problem of the positive externalities of education – which is nevertheless also outlined by Schultz. The issue comes directly from the erratic and speculative nature of the growth process.

divergence between him and Becker (and Mincer). In fact, even though Schultz considers that Becker's model provides a convincing explanation of individual choices of investment, he also attaches primary importance to the fact that the dynamic of education must meet the requirements of production. But the condition for the preferences of the students to converge with the needs of the production process would be an unrealistic "hyper-lucidity" on the part of the students. Thus, because of the insurmountable uncertainty characterizing the growth process,⁵⁵ individual preferences are not prone to meet the needs of economic growth (even in an enhanced informational environment). Consequently, Schultz departs from the idea that the individual choice model can be a convincing basis for a theory of the supply of educational services, as does Galbraith and, for other reasons, the radical school.⁵⁶ This is a sharp divergence from Becker's analysis. Likewise, even though he lays emphasis on the needs (in terms of skills) of the production sector, Schultz doesn't give much credence to manpower forecasting analysis.

The concept of demand for education requires clarification; as it is presently used, it is beset with ambiguity. [...] The demand behavior of students for places in colleges and universities is a useful approach. Another approach is to determine the demands for the particular capabilities that come from the teaching and learning in higher education – demands that are derived from the production activity of the economy. But it is unfortunately true that there is as yet no satisfactory theory which connects ex post rates of increase in the demands for the satisfactions and earnings that accrue to college and university students with future rates of increase in these demands. [...] Manpower studies do not provide the answer, nor are the sophisticated programming models as yet providing an answer. (Schultz, 1968, p. 334)

This explains why Schultz explicitly refers to the limited relevance of human capital theories in practice: "the concept of human capital has contributed more to economic thinking than it has to the solution of problems in education" (1968a: 329).⁵⁷ He adds that a way to improve it "can be achieved by clarifying and analyzing the economic demands in terms of the factors

⁵⁵ "What we do know is that the dynamics of our type of economy is continuously changing not only the demands for final products and the intermediate components entering them, but even more important, is improving the quality of old forms of capital and also developing new and better forms of capital. The obsolescence of capital, including the capital that is formed by education, is *real*, in large part *unpredictable*, and *important*." (Schultz 1967: 305)

⁵⁶ See Bowles and Gintis (1975, 1976, 2002). For a recent analysis of the criticism formulated by the radical school against human capital theory, see Bailly (2016).

⁵⁷ See also Schultz (1968a: 335).

that determine changes in these demands [for higher education]” (1968a: 335). But this requires abandoning methodological individualism. Student sovereignty is an intractable problem: it implies that human capital theory doesn’t provide analytical framework for judging allocative decisions (343). The challenge of consumer sovereignty over-complicates or destroys welfare economics.⁵⁸ And it appears that the challenge of student sovereignty has similarly serious implications for human capital theory: “as yet there is no economic theory for determining the changes in the demands for higher education that are derived from our type of economic growth” (Schultz, 1968, p.335).

Galbraith’s challenge is more radical than Schultz’s, but it starts from the same question: Who is competent to make allocative decisions?

Attention must be accorded to the distribution of talent between engineering, science, medicine, agriculture, and other needed specialties. I am not going so far as to suggest that students should be forced into a profession which they do not prefer. And the planning of university specialization is an exceedingly difficult matter. But I am certainly suggesting that when education is viewed as an investment, serious thought must be given to the accommodation of students to need and the incentives and other arrangements by which this is brought about. (Galbraith, 1962: 53-54)

Five years later he suggests that student sovereignty could be as challenging as consumer sovereignty. The conventional wisdom represented first by Becker, which remains even if human capital theories has evolved⁵⁹, holds that the dynamic of education depends on individual analysis and preferences; then the price mechanism on the labour market matches supply and demand. Galbraith cannot agree with such reasoning. He seems to consider that the demand for education is influenced by the supply, consistent with the dependence effect,⁶⁰ while the educational supply is itself shaped and restrained by the needs of the economic system and technological requirements ([1967a]2007: 295-301). From the very beginning of *The New Industrial State*, he lays emphasis on this point: “had the economic system need only for millions of unlettered proletarians, these, very plausibly, are what would be provided” ([1967a]2007: 5). Later: “it is assumed that an old mill town will have bad schools” ([1967a]2007: 295). One might criticize such a deterministic explanation: nevertheless,

⁵⁸ See Chirat (2017).

⁵⁹ On this evolution, see (Teixeira, 2005).

⁶⁰ On this matter, see Dunn (2010) and Chirat (2017). The latter paper deals with the literature on Galbraith’s theory of consumption and tries to prove that a lot of readings were erroneous.

economic⁶¹ and sociological⁶² studies have confirmed the importance of structural effects in education field. The lesson to be drawn from reading *The New Industrial State* is clear: the student – as the consumer – has a certain “freedom of choice” but is in no way sovereign, since his influence on the nature and the quantity of educational services produced is tiny.⁶³

Conclusion

In attempting to circumscribe the human capital research program a decade after its establishment, Blaug makes some challengeable assertions. By linking the human capital research program to the restrictive criterion of methodological individualism, he overestimates its methodological unity. In contrast, by setting out Galbraith’s economic conception of education and reevaluating Schultz’s, highlighting some unexpected proximities between the two authors, the present paper shows in fact that there is/(was ?) room for studying education outside Becker’s hegemonic analytical framework. Of course, Schultz and Becker share conceptual tools in analyzing human capital and strong institutional links. But Galbraith’s pragmatic preoccupations with social control,⁶⁴ and the emphasis Schultz puts on the dynamics of the economic development process in his explanation of the educational demand, strongly connect these two authors together. A reading of Rutherford

⁶¹ See Bowles and Gintis (1975, 1976, 2001), who “reject the individual choice framework” as well. Like Galbraith, these Marxian economists think that “the social organization of schooling can in no way be depicted as the result of an aggregation of individual choices” (1975: 77). But they also resist the use of the word (human) capital, whereas Galbraith uses it, as viewed before, with a pragmatic intent. Bowles and Gintis assert that the concept of capital in the “classical tradition” means “the claim on future income” or “the ownership and control over the means of production” (1975: 79). Therefore, they say, education is not capital. All the same, they admit an exception to this statement: “Education cannot be called capital in the classical sense. Unless one accepts John Kenneth Galbraith’s view of the hegemony of the technostucture (*an unlikely orientation for the human capital school!*), it must be admitted that educated workers do not control, much less own, the means of production” (Bowles and Gintis 1975: 79).

⁶² See for instance the work, in France, of Bourdieu and Passeron (1977).

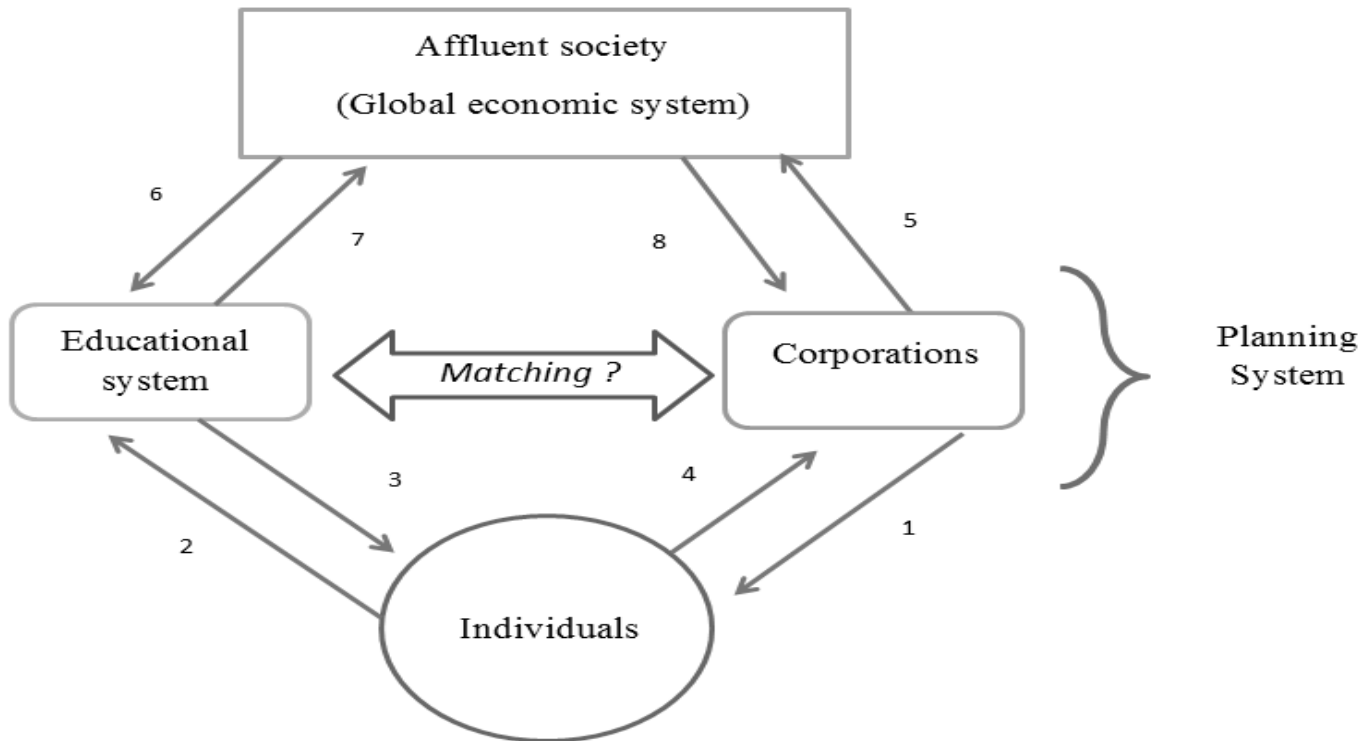
⁶³ On the distinction between freedom of choice and sovereignty, see Scitovsky (1992).

⁶⁴ Since Hamilton’s manifesto (1919), institutionalists have always been concerned with social control. Schultz, who is not an institutionalist, might have inherited it from his interest in Commons’ work (1968: 1113-1115).

(2010) or Mulligan (2008) suggests that Schultz does not play an important role in the so-called “Chicago view after World War Two”. This could be why he “showed some dismay regarding the policy and theoretical developments of economics” and “its higher concern with elegance rather than with relevance” (Teixera 2010: 329).

In 1976, Blaug remarked upon the degeneration of the human capital program. Nowadays the notion of “human capital” is subject to radical criticism not only from a conceptual viewpoint (Hodgson: 2014), but also for its programmatic consequences. Hanushek and Woessmann (2015), for instance, have recently claimed to have abandoned the concept. This paper has shown, however, that Galbraith and Schultz succeed in analyzing education using the concept of human capital but without endorsing methodological individualism. We claim here that the lack of awareness that there are two approaches to human capital has impoverished the common vision of the research program. This could be why it has proved to be ineffective from a practical viewpoint, and perhaps also explains why the very concept of human capital is currently subject to theoretical relinquishment.

Annex 1: Galbraith's representation of the dynamic of the education process



Meaning of the arrows:

- 1 – Corporations ask for workers with qualifications, skills and competences.
- 2 – Individuals demand education in order to have higher earnings and a more satisfying job.
- 3 – The education system offers individuals qualifications, skills and competences.
- 4 – The individuals supply their labor power and skills
- 5 – With qualified workers, corporations increase their productivity and efficiency. They contribute to economic growth.
- 6 – An affluent society can fund and improve its education system
- 7 – The education system promotes values that are those of the affluent society
- 8 – The affluent society is subject to change, especially in the technological field. Corporations adapt to those requirements by through their organization and manpower requirements → 1

Comments:

At first glance, it seems that Galbraith is viewing a closed system. But he also studies the social, cultural and political forces susceptible to counter the causal mechanisms represented here.⁶⁵ For instance, he writes:

“If the educational system serves generally the beliefs of the planning system, the influence and monolithic character of this latter will be enhanced. By the same token, should it be superior to and independent of the planning system, it can be the necessary force for skepticism, emancipation and pluralism” (Galbraith 2007: 452)

“Education, therefore, is a double-edge sword for the affluent society. It is essential, given the technical and the scientific requirements of modern industry. But by widening tastes and also inducing more independent and critical attitudes, it undermines the want-creating power which is indispensable to the modern economy. The effect is enhanced as education enables people to see how they are managed in the interest of the mechanism that is assumed to serve them. The ultimate consequence is that the values of the affluent society, its preoccupation with production as a test of performance in particular, are undermined by the education that is required in those who serve it” (Galbraith 1999: 208).

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⁶⁵ This point is not developed in the present paper. Concerning Galbraith's political vision, see Humbert (2005) and Waligorski (2006).

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