

Interdisciplinarity at School – Theoretical and Practical Questions regarding History, Geography and Civic Education

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Abstract

It has been a long time that interdisciplinarity is a recommended orientation and practice in various educational systems. It becomes more and more actual with some teaching objects that do not fit simply with the ordinary subjects present at school. These objects are often found in «educations to...» like education to health, to sustainability, to media, to citizenship, etc. To begin with, we examine how ambiguous can be the term of «interdisciplinarity»; we will use the more neutral term «polydisciplinarity». We also remind the reader that this latter needs disciplines to be put into practice. Then we differentiate school subjects according to their objects and their contribution to pupils' training. That leads us to distinguish on one hand an external polydisciplinarity which studies the links between all social sciences (mainly history, geography and what concerns citizenship) and other disciplines from, on the other hand, an internal polydisciplinarity within the social sciences. To conclude, we introduce the issue of knowing and understanding what a society is about, in particular knowing and understanding our society nowadays. This issue echoes the one about the common culture, about a shared world conception which is sufficient to live together in our political communities.

Recommended by some, regarded with suspicion by others and considered with prudence by yet others, interdisciplinarity is the object of many expectations and debates – whether it promoted from the beginning of schooling or delayed until the end of education. Even a cursory examination of several scholastic situations shows that we are dealing with a poorly defined concept whose pedagogical recognition raises many theoretical and practical questions. This demands a careful and rigorous examination of precisely what the term interdisciplinarity (and related expressions) encompasses. In this light, this contribution will consider interdisciplinarity from the perspective of three disciplines or subjects¹: history, geography and civic education. These three subjects are most often placed under the common goal of socialization or the formation of citizens. Usually present in compulsory School² in most education systems, they constitute, *de facto*, the primary

¹ History and geography are generally disciplines or school subjects identified as such, while the status of civic education is much more complex. See, for example, my contribution in this journal (Audigier 2002). For the sake of convenience, I continue to speak of "three disciplines" or "subjects" except where the distinction between history and geography on one hand and civic education on the other is necessary.

² In accordance with a habit and out of a desire for clarity, School, with a capital S, designates the whole of the education system from primary school until the end of secondary school. On the other hand, school, with a small s, means only primary school. TRANSLATOR'S NOTE: Since the French adjective "scolaire" is

introduction to social sciences over the nine or ten years of schooling. Whether intentionally or implicitly, either each one on its own or in explicitly constructed relationships, these subjects play an essential role in the transmission and construction, by the students, of that which comprises social, economic, political and cultural life in a society – that in which they live and that in other societies in the world which are studied in class. Likewise, they construct conceptions regarding rupture, change and permanence regarding the relationships that these societies maintain with territories and with their construction and so forth. Having specified the aim of this article, I refer the reader, for a comprehensive introduction to interdisciplinarity in pedagogical and training systems, to the review article published by Lenoir and Sauv  (1998) from which I borrow several terms and distinctions. Following a prologue that will briefly reconsider terms of art and outline the context and point of view adopted in this article, the analysis will occur in two stages. The first stage examines the "external" relations of our subjects with other subjects; the second stage will consider "internal" relations, that is, the relationship between the three subjects more broadly with other social sciences or even within each discipline. Finally, this article will consider the teaching/pedagogy of the three subjects and their goal of understanding the world (for example, Audigier in Sachot, Lenoir 2004). It will also outline potential research that would be especially interesting to undertake in a comparative perspective between different education systems.

1. Prologue

1.1. Ambiguous words, words to construct reality, to analyse and understand it, to communicate and exchange, to prescribe and guide action

Any consideration of the place of interdisciplinarity in primary and secondary pedagogy must necessarily begin by defining certain terms³. I do not intend to settle definitively the meaning of words that are themselves the object of many debates among specialists, but simply to consider, in a sufficiently rigorous manner, what is implied by the use of certain words to qualify one construction or educational practice or another. With *interdisciplinarity* appear immediately many closely related terms, such as *pluridisciplinarity* or *transdisciplinarity*. Thus, for example, Resweber (1981) attributes three characteristics to what he calls the pluridisciplinary approach: "One can define it as the bringing together of several disciplines ...; ... it demands that one single object be analysed. This object is most of the time a theme of study or a current affairs problem ...; ... the absence of synthesis between points of view that are being made. Pluridisciplinary thought lightens one single object under different aspects, but it does not care about to make those aspects consistent". For the same author, interdisciplinarity has five characteristics: "[it] passes pluridisciplinarity in exploiting presuppositions, object, method, and results that it supplies ...; ... [it] advocates to go back to the foundations of disciplines ...; [it] accomplishes its task only in reducing the examined facts into identical stratifications to the registrations made by varied views posed by specialists ...; ... the interdisciplinary method is neither a particular method nor an ideal method, but the itself plural explicitation of the discourse of methods that broke the barriers of protection that they built towards each others ...; ... [it] takes into account the relativism of methods to explain their mutual relativity"⁵. These excerpts pertain to two of the terms used here. They illustrate the complexity and the demands of each one; thus, great care must be taken if we wish to attempt to master them adequately. At the same time, other authors, for example Lenoir and Sauv  in the review article referred to above, use the term interdisciplinarity very broadly after having noted the diversity of vocabulary in this field.

This concern with words prompts another question: Does something that makes sense for scientific subjects also make sense for pedagogical subjects and for school subjects, taking into account

often best translated as "school" in English, this English translation specifies "primary school" where the original refers to " cole". The translations of the French citations are made by the author; the original version is to be found in the footnote following the translation.

³ The original version of this text was written in French. No matter the quality of the translation, the reader will recognise that the meaning of the words used here varies depending on language, context, experience.

⁴ «... On peut la d finir comme  tant la mise en pr sence de plusieurs disciplines...;... elle exige qu'un m me objet soit livr    l'analyse. Cet objet est le plus souvent un th me d' tudes ou un probl me d'actualit ...; ... l'absence de synth se entre les points de vue dont il est fait  tat. La r flexion pluridisciplinaire  claire un m me objet sous divers aspects, mais elle ne se soucie pas d'harmoniser ceux-ci entre eux...»

⁵ "[elle] relaie la pluridisciplinari t  en exploitant les pr suppos s, l'objet, la m thode et les r sultats qu'elle fournit. Elle va donc aller plus loin dans l'analyse et la confrontation des conclusions...; [elle] pr conise un retour au fondement des disciplines...; [elle] n'accomplit sa t che qu'en r duisant le donn  examin    des stratifications identiques aux d p ts op r s par les regards vari s que les sp cialistes ont pos s sur lui...; ...la m thode interdisciplinaire n'est ni une m thode particuli re ni une m thode id ale, mais l'explicitation, elle-m me plurielle, du discours des m thodes ayant bris  les barri res de protection qu'elles avaient dress es les une contre les autres...; [elle] prend acte du relativisme des m thodes afin d'expliciter leur mutuelle relativit ...".

their specificity and their operational modalities? For example, Herr, having raised the question, "the question is to know if epistemological problems raised by knowledge production on a scientific level, are the same on the didactic level, and more precisely on the level of knowledge transmission"⁶, concludes, "*Teaching organised by the school subjects is not a necessity: it is the application without much attention of a model that organises knowledge in the scientific field. This lack of attention is besides rather poorly scientific as it precisely devotes what scientific rigor bans, that means transposition of a model coming from a specific field to another without questioning the effects, the performance of an imported model and thus the validity of the transposition... In fact, disciplinarity and interdisciplinarity can not go without each other*"⁷.

The epistemological function of social sciences as they construct and present themselves in scientific institutions (whose role is to produce knowledge) is not identical to the function linked to the use of that knowledge in order to deal with societal problems, and even less so that of school subjects. In effect, these correspond to their own ends and operate in a different institutional framework. I should add that the education provided in schools is given to students, most of whom will remain non-specialists in these subjects. The *teachable*, the *learnable* and the *assessable* (Chevallard 1985) must be constantly made. A brief survey of didactic practices qualified as interdisciplinary illustrates that we are very far from the demands this term imposes in scientific communities, and, on the other hand, that the term encompasses a very heterogeneous cluster of practices and points of view in which the chances of fulfilling the characteristics identified by Resweber are almost nil. As my intention is not to allocate *good points* and *bad points*, I will use another term which, as it is less frequent, will seem more neutral to the reader – *polydisciplinarity* – cited, among others, by Lenoir and Sauv , to designate all theories and didactic practices that deal with or invoke relationships between subjects.

1.2 A method, an observation, an affirmation

To delve into the matter, I start from a formula, an observation and an affirmation. The formula has served as the title of an article (Audigier 2001b): "*Students are not disciplinary, the world neither, what about the knowledge?*"⁸ The observation is that Schools base their teaching on separate disciplines. The affirmation is that contained in a great number, or even all, official texts that attribute to the three subjects studied here the goal of creating citizens through the knowledge and understanding of past and present societies. Since this goal of understanding the world is a necessary condition for a rational exercise of citizenship, *les savoirs scolaires* are not destined to remain prisoner of their scholastic and disciplinary origins. This knowledge is a tool, constructed by students, so that they implement and use it in non-school situations. Understanding the world means above all to understand the problems that arise in our societies today, their origins, their complexity, etc.; it also means learning and contributing to resolve them. Moreover, the problems arising in our societies and that they must resolve are not essentially limited to a subject. However, in order to construct and resolve them, we appeal to knowledge that itself is, at least in part, disciplinary. Organisation of curricula according to subjects is also legitimated because it offers a framework that is necessary to the development of conceptually structured thought. At the heart of education and training lies the constant search for a meeting between knowledge of the world, mainly transmitted and constructed in the framework of a subject, and the world in which one lives, between the local and the planetary, yesterday and today.

Finally, this project occurs in a School that operates⁹ according to a well-defined pattern, called la *forme scolaire* by historians and sociologists. This pattern was established in Western societies beginning at the end of the 18th century and has remained quite stable. One characteristic of this pattern, which interests us here, is the carving up of knowledge into separate subjects – subjects that are constructed according to a division of time that is constraining, from the succession of class hours in the day and the week to the annual or long-term organisation. Time carves knowledge up

⁶ "*Le probl me est de savoir si les probl mes  pist mologiques que soul ve la production de savoirs interdisciplinaires sur le plan scientifique se posent dans les m mes termes sur le plan didactique et plus particuli rement sur le plan de la transmission des savoirs*" (in Sachot, Lenoir 2004, 171)

⁷ "*L'enseignement disciplinaris  n'est pas une n cessit : il r sulte de l'application d'un mod le d'organisation des savoirs issu du champ des sciences sur l'enseignement, sans aucune vigilance. Cette absence de vigilance est du reste assez peu scientifique elle-m me, puisqu'elle consacre pr cis ment ce que la rigueur scientifique interdit,   savoir la transposition d'un mod le issu d'un champ particulier dans un autre, sans interrogation sur les effets produits, sur la performance du mod le import  et donc sur la validit  de la transposition... En fait, disciplinarit  et interdisciplinarit  ne peuvent se passer l'un de l'autre.*" (in Sachot, Lenoir 2004, 176).

⁸ "*Les  l ves ne sont pas disciplinaires, le monde non plus, et les connaissances ?*".

^{*} Translator's note: "Savoirs scolaires" are knowledge taught at school, that are in principle stable and accepted by everybody. Knowledges ("les connaissances") are the "savoirs scolaires" suited personally by the students. It has thus been left in French in the text to denote this comprehensive meaning, which cannot be conveyed by the literal translation of "school knowledge".

⁹ See in particular the most recent edition of the review *Raisons  ducatives* (Maulini, Montandon 2005).

and in doing so constructs it; actors in the school carve knowledge up according to the organisation of time prevailing in the institution. This does not mean that the contents taught and the didactic methods have not changed over time, but rather that the essence of these changes has occurred within this basic model. Whatever does not fit is easily cast out of the system. Yet school subjects are not more or less bastard children of eponymous science but constructions that belong to the school that borrow knowledge and know-how from these sciences and also from many other fields of knowledge and social practices. (For example, see Chervel 1988; Audigier 1995).

1.3 Three movements

Teaching within a subject is also called into question by three movements: criticism of fragmentation of subjects in teaching, the multiplication of social demands that are expressed in *education for*, and, finally, the meaning of *savoirs scolaires*. The first movement is an old one and the idea to decompartmentalize or integrate curricula has been the subject of many works. Let us recall here that situating decompartmentalize or integration in an interdisciplinary perspective is in no way in opposition to subjects but on the contrary presupposes their existence. However, some of the works that make this argument reject this reference to subjects to situate the activity of the student at the centre of didactic thought and practice. It is self-evident that this point of view is not my own and that this sought-after centre is that of the meeting of students, of their worlds, and the world of school knowledge. As for the second movement, it is a result of the fact that many issues are knocking at the school door: the media, health, new information technologies, etc. These issues, which are extremely heterogeneous, are expressions of social preoccupations and are not considered to belong *a priori* to a given subject: they are considered as having to be taken charge of by several subjects and are most often presented in the form of *education for*. I will return later on to the importance that these issues take on today and what they imply for polydisciplinarity. The question of meaning is also not new, but it is becoming more and more pregnant and the terms in which it is couched have been modified. It is not necessary to emphasize the gap that exists between culture that is transmitted at school and the culture or cultures of youth today. Meaning is linked to the ability of individuals (in this case students) to minimise these gaps as much as possible and therefore to weave a relationship between their taught knowledge and their culture, their history, their personal world; we recall here the theme of "meeting". Some authors (Forquin 1974) speak of "*concret de pensée*" as the ability of the individual to make the link between new knowledge and that which he already knows. The question of meaning is at the heart of our inquiry; the primary end of our subjects concerns meaning, as does the formula set out at the beginning of this text. In order to have meaning for students, *savoirs scolaires* taught in our subjects cannot remain enclosed solely in their disciplinary universes. It is the wager of the School as public institution and the wager of the "educability" of people.

1.4 Teaching methods and differences according to phases of education

These basic elements and movements are also contained in the background of pedagogical debates or even quarrels regarding teaching devices. The pedagogy of projects, problem-solving, the significance accorded to experiential experiences and therefore often to generating experiences etc. – there are many approaches that call into question the carving up of knowledge into subjects, and, above all, *la forme scolaire*. To conclude this lengthy prologue, reflections on polydisciplinarity must also take into account existing differences in the whole of the didactic path. Compulsory schooling generally lasts for nine years, from the age of 6 to 16, very often with some education beginning two or even three years earlier. It continues, also quite frequently, until the age of 18 or 19 in the framework of secondary education. Obviously, polydisciplinarity is not present in the same form nor does it raise the same questions at different levels of School. Thus, at the beginning of education, our subjects are not well identified in an autonomous sense¹⁰. It is submitted that the child has a *global* apprehension of the world.

Very quickly, however, instruction is organised according to school subjects as the very formulation of curricula itself shows. In this way, the student enters into the carvings up and categorisations belonging to this construction of the whole and to each school subject. The carved out subjects become the framework of education. Nonetheless, at primary school, the existence of a single teacher who is not specialised in one subject or another (which does not mean non-professional!) allows for greater flexibility. The situation is not the same in secondary education where many teachers take charge of one class and each is, in principle, a specialist in a subject or in a limited number of subjects. This framework is so much stronger and more restrictive that the exams at the end of secondary school even occur within these divisions.

* Translator's note: In French, the expression "éducations à ..." is used by the author. This phrase refers to education that may loosely be translated as "education for" such as "education for sustainable development". However, some of the teaching that falls within this category cannot be encompassed by that term. The translator has elected to translate this term as "education for".

¹⁰ For example Sachot in Sachot, Lenoir 2004.

2. First stage: Teaching of social sciences and external polydisciplinarity

The aim of this first stage is to distinguish among school subjects prior to analysing their possible relationships and to enquire into the effects of the increasing demands for *education for*. These two issues destabilise *la forme scolaire* from the moment one attempts to take them into account. Thus, I will outline some characteristics of *external polydisciplinarity*.

2.1 Distinguishing among school subjects

In the majority of education systems in developed States, one can observe the presence of a large number of common subjects, branches or school disciplines (for example, Forquin 1989; White 2004). Knowledge, know-how and skills that society deems to be useful, good and necessary to transmit to succeeding generations are essentially inscribed in these subjects. Everywhere or almost everywhere, at primary school we come across: the language of teaching or instruction, being the common language of the political community which is not always the mother tongue; mathematics, elements of natural sciences, more or less linked to an openness regarding technology; elements of social sciences which, as stated above, are most often contained in history and geography; that which is supposed to introduce people to the concept of *living together* and to the rules of "vie commune" with frequent reference to citizenship, without that necessarily being a school subject in the strict sense of the term; physical activity and sports; expressive activities with music, industrial arts, visual arts ... By and large, these subjects are maintained at secondary school sometimes with different denominations. Some of them are divided and become more specialised; one or more foreign languages may be added¹¹. Little by little, in function of the structures that distinguish the students and that propose or impose specific orientations, other subjects, in particular technical and professional subjects, are introduced. Other subjects disappear or become optional. But, in want of a more systematic inventory, everywhere or almost everywhere, the official language, mathematics, physical activity and sports subsist. History and geography have very diverse fates, history being more frequently present than geography. As far as citizenship goes, the more one advances in education, the less it is present. Polydisciplinarity thus occurs at School above all starting with these school subjects. Thus, for example, at primary school, polydisciplinarity may imply history and geography, but not economics or sociology *stricto sensu* since the latter two are not explicitly present in most curricula.

In this cluster of subjects, each makes its contribution to the socialization or formation of the subject student, but each has particular ends linked to its supposed functions in society and to its own goals. Debates on School, broad international inquiries, traditions and many other things easily show that all subjects do not have the same importance. Thus at primary school, the reading-writing-arithmetic trilogy defines what is essential, an "essential" that is often considered as a minimum asset and/or necessary to pursue secondary studies. In that trilogy one easily recognizes the language of instruction and mathematics. Presented in this way, this trilogy seems to reduce the contribution of these two subjects to tools necessary to live in the world today. Regarded as tools, consideration of them will look less at what these subjects say about the natural and social worlds¹², in particular through texts that are written and read, examples used, etc., than at the mastery of skills expressed by the trilogy reading-writing-arithmetic. Knowledge about these worlds is taken into account by the natural sciences and social sciences. It is these sciences that refer explicitly to the empirical world. But in order to do this, they use languages, tools. The first of them is evidently the language of instruction; as for mathematics, the use of numbers, quantities, etc., is constant and their mastery is therefore necessary, whether it be to measure time and chronology or the product of some human activity or other. This first approach introduces therefore a clear separation between subject-tools and subjects that study the *real* world, for us, present and past societies. A third group of school subjects brings together elements of personal expression, be it through the body, gestures or actions, or through the use and mastery of methods generally categorized as artistic. Finally, one could distinguish other groups, in particular in technical and professional education that regroups subjects that more explicitly refer to social practices¹³ linked to professions.

This classification sketch clearly indicates that relationships between subjects are not relationships between identical fields of knowledge, know-how or skills. When the goal is to transmit and construct knowledge about the social world, social science subjects play a predominant role. One is therefore tempted to classify others as *tools in the service of* ... However, it becomes more

¹¹ Increasingly, a foreign language is introduced in primary education. This obviously does not change subject divisions, but it unbalances the patiently constructed compromises since hours must be found to teach in a non-extendible class schedule.

¹² I do not contest this distinction between natural and social, strongly anchored in western culture, while indicating that other cultures, such as the Chinese culture, do not reason from such a strong distinction and that new concerns, such as sustainable development, incite us to question that distinction and to move beyond it.

¹³ See, for example, the works of Jean-Louis Martinand.

complicated when we consider on one hand the fact that *subject-tools*, subjects of expression and technical and professional subjects, all contain a *cultural* dimension, and on the other hand when we consider the determinative role language plays in the construction of our relationship with the world.

From the perspective of culture, all subjects have something to say about the empirical world and about our societies. They contribute to the construction of a vision of the world, the *Weltanschauung* that is transmitted to students. Everyone is aware of the debates regarding the teaching of language, between that which focuses on "technical" aspects of language as opposed to more literary aspects, or in fine arts, learning means of expression versus introduction to the works of previous generations. One can elaborate much more on all of this. However, I simply wish to point out at this stage that we all have something to gain by specifying in an explicit and rigorous way the precise aspects of each subject that are in question when we seek to draw links between them. Drawing links also means teaching students to distinguish what is unique to each field of knowledge and what is shared between them. This certainly implies overturning some widespread didactic methods. Thus, for example, history and geography call for narration, description and explanation. The relationship with the acquisition of the language of instruction may, for example, be woven in among typologies and genres of texts¹⁴. However, the positions and aims of each one differ. Geographers and historians use narration, description and explanation in order to accomplish their aim of creating awareness of past and present societies whereas typologies of genres of texts would rather be presented as tools of analysis or organisation of textual materials whose use is meant to facilitate mastery of the language.

Finally, it is important not to forget that the list and the choice of subjects worthy of being taught in school as well as the contents of those subjects are the result of historical processes and are not *essentials* that must be kept at any price. *Education for* illustrates the continuation of these processes.

2.2 Education for: a persistent social demand upsetting established subjects

Above, I emphasised the inflexibility of the way in which school subjects are delineated in our educational systems. This fixed delineation or stability does not mean that the actual content of the subject matter has remained fixed. There has always been evolution in this knowledge. One of the key reasons for that evolution, to use a very general term, is *public demand*. In other words, society, through school boards, ministries and other responsible institutions, requests the School to introduce new knowledge, new know-how, to assume responsibility for new fields that are barely or not at all present in education. As the world changes, the content of what is taught changes with it¹⁵. There is nothing unusual in that. These changes are also sometimes or perhaps often linked to changes in their scientific counterparts.

A careful examination clearly shows¹⁶ that the introduction of these novelties is not self-evident: Either they have to be integrated into existing subjects or they succeed in becoming a new subject, or they are only ephemeral, or, finally, responsibility for them is assumed by only an extremely small proportion of teachers. Integration into existing subjects is fairly straightforward in situations in which the matrix of the subject (Develay 1995) is not really modified by the introduction. This is the simplest case. The creation of a new subject is more difficult. No existing subject leaves the classroom willingly or without a fuss. Nevertheless, anything new that enters must necessarily be compensated by an exit. It is not possible to extend the school timetable! The other two possibilities are simultaneously trickier and more disappointing. The permutations and combinations to which the introduction of new information technology has been subjected are a perfect example: should it be made a new subject unto itself or integrated into existing subjects? Schools are a playing field for competition between subjects and each one obviously makes an irreplaceable contribution to the formation of future generations of adults!

The School has long been familiar with such situations, but the pressure today to bring about an evolution in the knowledge at school is more intense. In very many education systems requests for *education for, media understanding, health education, environmental education, education for sustainable development, citizenship education, etc.* have multiplied. This education is not presented as a novelty or novelties to be integrated into one or another existing subject, but rather as necessarily giving rise to polydisciplinary approaches because the content that is useful to deal with them cannot be enclosed in the usual airtight compartments. These subject matters are also an opportunity to modify methods and techniques of teaching. To give another example from the French system, the contents of pedagogical works that deal with such *éducations* in secondary education in fact bear witness rather to an assumption of that material by a subject – environmental education and sustainable development education by natural sciences and a little bit by geography,

¹⁴ See, for example, the writings of Jean-Michel Adam.

¹⁵ For example, Audigier 2000; Audigier, Tutiaux-Guillon (forthcoming).

¹⁶ See, for example, on *L'éducation aux droits de l'homme*, Audigier 1991.

civic or citizenship education by historians and geographers, media education by language teaching and less often by history and geography, health education by natural sciences, biology, etc. In the face of this reduction of these issues to a subject matter, another avenue is to open free spaces and to make *off the subject* initiatives. Again from the French system, "discovery itineraries" in late elementary or the first years of secondary school (11-15 years of age) and individual projects in secondary school (15-18 years of age) are a good start. In Switzerland, projects for the baccalaureate, carried out during the last year of secondary school and taken into consideration in the exam, are another example. They allow for diverse forms of local arrangements that are contained in project plans without the latter necessarily referring explicitly to *education for* nor that they encroach upon the construction of the curriculum. As such, the actual integration of this *education for* in teaching remains very subtle as long as it is not done in existing subjects. As for primary school, we lack systematic studies and are therefore reduced to several hypotheses. One of these hypotheses is very similar to such *education for* and pedagogical practise organised around centres of interest or study themes. Specific studies remain to be done. In this context it would be appropriate to consider how the conclusions from a precise inquiry into the knowledge in question, the expected learning outcomes and the stated progress are taken into account.

From the perspective of polydisciplinarity, *education for* raises different questions. It explicitly refers to the world and to questions that are raised today in our societies. It is no longer about encouraging students to enter into one or another specific field of knowledge defined according to subject but rather to introduce them to problems of the world. Moreover, this introduction not only aims at awareness of these problems but perhaps even more at behaviours, attitudes, action. To that one must add another change, learning in question can no longer be restricted solely to the framework of School but engage social life of today and tomorrow more broadly. It is there that they must prove that they are fulfilled. For example, media education aims to train *critical* citizens, able to put messages from television or from any other media into perspective. This skill is learned at School in order to be put into practice at home. Health education serves no purpose if it is not translated into corresponding behaviour to combat obesity, drug consumption and sexually transmitted diseases. The usual place of knowledge is almost reversed. Education does not begin from the starting point of knowledge and skills that are supposed to belong to a school subject in order to then put students in a position to construct them and hope that this knowledge and skill-set will be transferred and used in social situations in which they are relevant. Instead, it begins from social preoccupations, global aims of training, wagering that their study and problem-solving or skills that they require will translate into *ad hoc* behaviour in social life. This kind of education calls upon knowledge and skills that are supposed to be relevant, without necessarily explicitly linking them to one school subject. That being the case, most *education for* comprises in whole or in part things that social sciences study. This raises a new question: that of the rational presence of subject knowledge and skills and the risk of reduction of the study of themes to a kind of common sense shared between teachers and students. If, faced with a social problem, specialists call upon and use knowledge that is useful to the construction and resolution of the problem, the school curriculum will lose its anchor and change with the direction of the latest breeze.

3. Second phase: polydisciplinarity internal to social science subjects: history, geography, civic education

In this last phase I will limit myself to the social sciences while highlighting the subjects that are most or even the only ones present during compulsory School and investigate their relationship under the rubric of an *internal polydisciplinarity*. We return, therefore, to our trio from the outset. However, before going into what happens at school, I will present a few short epistemological considerations regarding the social sciences, their unity and their diversity. Although the school subjects differ from human sciences, the study of their construction and of their own epistemology itself requires reference to the human sciences.

3.1. On epistemology

The social sciences are presented under the rubric of plurality. Each one proclaims and defends its specificity. Each one deploys a plethora of theories, methodologies and paradigms. To go through each one is in any case impossible. I simply wish to point out several characteristics while emphasising unity for reasons that will be set out below. A first guide is the historian. He gives us his analysis of the establishment of divisions between social sciences as follows: "*This separation between study fields, we know their origins. They come from the 19th century prevailing liberal ideology who conceived State and market, politics and economics as two analytically separate and widely autonomous fields : each one owned its specific laws, its "logics". The society was asked to keep them separate, thus the researcher studied them separately. When it appears, that certain realities could not be classified neither under the domain market, nor under which of the State, one brought together all these residua in a kind of mixture which by way of compensation received the*

*name of Sociology*¹⁷. Thus, whatever may have been the expectations of what we would meet in a more distant past¹⁸, their story only really begins with modernity in response to concerns and demands that require the development of political and social communities. Thus we witness the detachment of political science, whose objective is good government, and, on the other hand, economics, concerned with increase in production and accompanied by statistics and demographics. How can one govern well and manage available resources, production and the distribution of wealth if one is unaware of quantities produced and the number of people in question? The “remaining” social activities are stowed under the flag of sociology, a science onto which anthropology and ethnology (depending on the specificity of the fields and problems studied) are grafted. One way of dividing social activities, which I will come back to, fuels these scientific distinctions. It took time for geography to join the family of those sciences that study the present. History, whose proclaimed objective is the study of the past also falls primarily under this banner. For the last two centuries, epistemological works and debates have followed one upon another. They illustrate theoretical and methodological as well as practical and cultural clashes regarding the specificity or unity of these sciences¹⁹. The debate remains open.

Confronted with this vast field where so many concurrent points of view clash, I adopt a resolutely constructivist position. This position is based on the preoccupations and demands of my field of work, the teaching of school subjects (at least two of which, history and geography) that claim a scientific basis that belong to this family. Civic education is in a more ambiguous position. Political science is in principle its main basis, but it also makes constant reference to institutions and social issues whose construction in a defined scientific universe remains very fragmented and temporary. The constructivist position holds that unity or specificity is not related to some *essence* or nature of each of these sciences, but that to conceive of them as a whole facilitates consideration of some problems and diminishes the possibility to consider others, while the inverse proposition puts us in a different, but not symmetrical, position. From the perspective of education, and recognizing the ultimate goal of understanding by the student of the world in which he lives, I hold as axiomatic that it is necessary in first place to consider social sciences as a whole. Among the very many authors who would at this point invoke their works on social sciences as a whole and who emphasise their unity without one diminishing the other, I refer to some authors alongside Immanuel Wallerstein cited above (e.g. 1991). For example, Jean-Claude Passeron (1991) classifies these sciences as *socio-historic* since any study of the human being is necessarily situated in the temporal dimension, whereas the historian Antoine Prost, following years of dialogue with sociologists, wrote in 2002, 38: “*Thinking about my practice, I had thought possible to oppose the reasoning of historians and the one of sociologists. On the side of history, I placed plot and narration, on the side of sociology hypothesis validation following Durkheim. Jean-Claude Passeron has convinced me of the vanity of this distinction: history and sociology are moving both of them in the non popperian space of natural reasoning*”²⁰. Certainly, he then adds something that could be read as a nuance: “*It seems nevertheless that history does not always rely on the same argumentations and that it movingly and each time adapted to the object combines two lines of argumentation: the story and the picture*”²¹. However, it would be easy enough to show that all social sciences constantly use and play these two lines; tale and picture meet diachrony and synchrony, two temporal dimensions that all science of human interaction calls upon and articulates.

Godelier (1982, 22) recalls their interdependence around their *objet fondamental* which “... is the analysis of the different forms of organisation of society and social practices that nowadays coexist on the surface of the globe or that existed since the beginning of mankind”²². Finally, Berthelot

¹⁷ *Ces divisions en champs d'étude, nous en connaissons l'origine. Elles tiennent à l'idéologie libérale, dominante au XIX^e siècle, qui concevait l'Etat et le marché, la politique et l'économique, comme des domaines analytiquement séparés et largement autonomes: chacun possédait ses lois particulières, ses « logiques ». On pria la société de les maintenir séparés, aussi les chercheurs les étudièrent séparément. Quand il apparut que certaines réalités ne pouvaient se ranger ni dans le domaine du marché, ni dans celui de l'Etat, on regroupa tous ces résidus dans une sorte de pot-pourri, qui en compensation hérita du grand nom de Sociologie (Wallerstein 1995, 273).*

¹⁸ In particular with regard to human government as, for example, the works of Machiavelli or Jean Bodin in the 16th century illustrate, not to mention Aristotle and his thoughts on politics.

¹⁹ See, for example, Berthelot 2001, and especially the contribution of Ruwen Ogien, p.521-575.

²⁰ « *Réfléchissant sur ma pratique, j'avais cru possible d'opposer le raisonnement des historiens à celui des sociologues, plaçant du côté de l'histoire la mise en intrigue et la narrativité, du côté de la sociologie la validation des hypothèses dans la continuation de Durkheim. Jean-Claude Passeron m'a convaincu de la vanité de cette distinction : l'histoire et la sociologie se meuvent toutes deux dans l'espace non poppérien du raisonnement naturel* ».

²¹ « *Il me semble pourtant que l'histoire ne repose pas toujours sur les mêmes argumentaires et qu'elle combine, de façon changeante et chaque fois adaptée à son objet, deux lignes argumentatives : celle du récit et celle du tableau* ».

²² « *...est l'analyse des différentes formes d'organisation de la société et de pratiques sociales qui coexistent aujourd'hui à la surface du globe ou qui se sont succédé dans l'histoire de l'humanité* »

(2001) gathers together epistemological inquiries in a collective work, the second part of which is devoted to the consideration of issues that concern all of them.

We must now turn to a closer examination of the two sciences – history and geography – that are two of the school subjects we are concerned with. As stated above, history is a study of the past in all its aspects. Geography, even if today re-focussed on the concept of space, is concerned with all social activity. A simple and trivial observation of university Chairs or of publishers or journals shows that these two sciences are frequently preceded by the adjectives economic, social, political or cultural. The use of these adjectives does not pre-judge a systematic coupling of history and geography with economics or political science, sociology or cultural studies. Borrowing and transferring occur frequently, but they do not create a new science that is born of the fusion of the two inspiring ones. Historical and geographical issues remain the organising principles of scientific work. This is not "interdisciplinarity" in the strict sense of the term.

At this point, it becomes necessary to formalise the distinction between social sciences and "registres d'analyse", registers that Ricoeur (1994) calls *levels*²³. I will not say any more about social sciences, which, beyond their unity affirmed above, cut across specific objects in social reality that they study according to their own problematics and investigations. Registers of analysis are a manner of sorting social reality without making systematic reference to corresponding sciences as far as such sciences exist. They are, therefore, a way of constructing reality. This division into "registers" is as common in history as in geography. It corresponds to the aim of global knowledge indicated above, knowledge if not from reality at least from that which these sciences study and construct. This process of division takes place in a game of "decomposition-recomposition". Ricoeur (1994) describes it as such, specifying that it contributes to the scientific character of history: *"the explicative form becomes autonomous in becoming a distinct issue of an authentication and justification process; contributions*

.on one part, the enormous work of conceptualisation applied to universal that history constructs (serfdom, industrial revolution...);

.on the other part, the decomposition of a portion of the past in different levels (economic, social, political, intellectual, etc. Those levels are to be recomposed under the limite-idea of total history;

.lastly, the pluralisation of the times of historians, from which the braudelien distinction between short duration, long duration and geographical times almost motionless, is one of the best example.

*Of all this manners, a gap is established between the naive narrative level of told stories and the critical level of understanding explanation by professional historians*²⁴.

A similar analysis can be made regarding geography. Social space, the privileged subject of study of geography, truly has meaning and scale when one considers all of the levels that concern spacial reality²⁵. Nature must be added to the "registers" cited above since the study of social space is also the study of the relationship between nature and society.

This does not mean that these two sciences are in a hegemonic role given that they are the only ones to attempt this ideal synthesis of knowledge. In contrast to other social sciences, the explicit aim to recognize all of the "registers" cited, and from there the whole of that which constitutes social life in all its complexity, puts them in a unique position. But if history, without itself being the owner of the past, is in fact in a dominant position, geography is often in lively competition with other social sciences for the understanding of the contemporary world. What is more, its *concrete* side, as we like to give importance to forms, dispositions and processes that have a material and visible dimension, renders it less legitimate in the eyes of some.

3.2 At school, an Unconsidered Polydisciplinarity: Understanding Society

Since history and geography are in a hegemonic position among social science education in a large number of educational systems, it is through them, and through citizenship education where it exists, that students construct knowledge about past and present societies. This teaching is the

²³ Cf. "Niveau" in Ricoeur's quote further.

²⁴ « *La forme explicative se rend autonome en devenant l'enjeu distinct d'un procès d'authentification et de justification ; y contribuent, d'une part, . l'énorme travail de conceptualisation appliquée aux universaux que l'histoire construit (servage, révolution industrielle, etc.) ; . d'autre part, la décomposition d'une tranche de passé en niveaux (économique, social, politique, intellectuel, etc.), qu'il s'agit ensuite de recomposer sous l'idée-limite d'histoire totale ; .enfin, la pluralisation des temps de l'historien, dont la distinction braudélienne entre durée brève, longue durée et temps géographique quasi immobile, est l'une des meilleures illustrations. (p. 17, la mise en page est de nous)*
De toutes ces façons, un écart est institué entre le niveau naïvement narratif des histoires racontées (stories) et le niveau critique de l'explication compréhensive des historiens de métier. »

²⁵ See, for example, Lévy, Lussault 2000.

primary educational vector of an introduction to reasoned discourse aiming at understanding social life, including its relationship with the natural components of space. History and geography at school consider all dimensions of social life in the same way as their scientific counterparts. One only has to open a manual of one or the other to encounter knowledge relating to the world of production, consumption and the distribution of wealth, to the study of division, hierarchy and social stratification, of the organisation of political and administrative power, of the population with its structure, its evolution and division, of culture, mentalities, technology and its mastery, relationships with nature, etc. In short, all social dimensions are present. From this observation, can we speak of polydisciplinarity? Yes, if we consider the knowledge we have borrowed whose origin we may also classify in other social sciences. No, if we consider that it is the logic of each of the two subjects that orders the way in which these loans – data, results, concepts – are introduced and dealt with.

Through the teaching of these two subjects, students construct tools to understand the social world; they learn to categorise social realities, to classify them under general concepts that themselves have multiple meanings, to construct a world vision, a conception of society, power, activities, social classes, etc. By and through teaching of history and geography a *Weltanschauung* is established, a social image of the social, along with the contents of the mix of knowledge, norms and values. This common culture, this shared vision of the world is necessary to build collective identities and the feeling of belonging as well as the public space of deliberation that democracy calls for. Therein lies the goal of the formation of citizens. Nonetheless, the issue of the explanation of this culture remains to be addressed.

Thus, aside from rare instances where meaning and the utility of these divisions are made known and the trace of some definitions can be glimpsed in school textbooks or workbooks, it would not seem that these contributions are constructed and introduced in an explicit manner. Educational culture tends to present discourse on studied societies not as constructions, but as reality itself or even as fundamental. This concept of the social is first of all constructed by a process of accumulation of information and declarative knowledge. Through chapters and subjects studied, such and such a term, such and such a form of economic, social or political organisation is introduced. The list is too lengthy to include here, even roughly sketched. The divisions of these chapters and issues demand the introduction of these divisions in society. They appear as a simple translation of the real world, according to space-time considered to be the closest to our world. For example, the Industrial Revolution associated with the 19th century provides the opportunity to introduce a division of society between bourgeois and working class, as well as economic and social models such as liberalism, capitalism and socialism. It is also the moment to introduce some simple models, such as demographic transition or explanatory schemas that are themselves also reduced and linear, such as scientific progress, technical progress, increase in production, change in economic and social structures, political change... The spatial division among continents introduces the concept of *developing country* with Africa, whereas to study some cases in a more local or precise manner, such as water in the Middle East, we would refer to a number of "registers" in a geopolitical vision. Each time, words, concepts, analytical models, etc, which are tools thought necessary to understand the world, are invoked as corresponding directly to reality. The entirety of this social culture is essentially established according to a process of accumulating information. The relationship between different "registers" and their recomposition under the aegis of "the plot", for example, are not the subjects of study or analysis. All of these tools and all this information leads to a *formatting* of the mind, in the most profound sense of the formulation of the human spirit, in this case that of students, a formulation that includes both meaning and direction. The divisions used, those of space and time, the divisions of "registers" whose relationships with other social sciences I have sketched, the concepts and models put in place, are hardly the subject of reflection and explanation. A comparison of school textbooks from different countries, to take just one example, simultaneously demonstrates this *naturalisation of culture* that our subjects transmit and the fact that this nature is not at all universal. In this case we are in a kind of maximum internal polydisciplinarity, not between all the social sciences in their school subject versions, but between the different and multiple aspects of social life and the combination of them.

Finally, with citizenship education, we are also in an elevated degree of polydisciplinarity, which is not very explicit except insofar as there are elements that doubtless come from the universe of political science. The contents of this "education" overflow the boundaries of political science. The study of curricula and textbooks in use in a variety of education systems²⁶ illustrates the very heterogeneous character of this field that combines a large quantify of knowledge and information about public institutions and public life in general with goals of behaviour and attitudes and an explicit role and, in fact, normative values. The importance given to values and behaviours puts this kind of education into the same category as the other "educations for...". However, as for our two other subjects, the objective of making students enter into an already existing world leads to preferring descriptive dimensions as reality and normative dimensions that act as proof. The *Weltanschauung* it generates is as subtle as that generated by history and geography. In fact, they

²⁶ For the curricula of citizenship education in seven European educational systems, see Audigier 2003.

are very similar, if not identical, each one affected by the relevant political community and by its predominant point of view.

More broadly, the construction of this common culture cannot be reduced to only history and geography. It is the result of the whole of the educational experience, that which is more closely related to knowledge and skills taught and learned, and that part that is more directly linked to school life, to the functioning of the institution, and to interpersonal relationships. The titles of two publications by Jerome Bruner answer one another in order to recall the relationship between (primary) school, culture and spiritual/intellectual development: *L'éducation, entrée dans la culture* (1996) ...*car la culture donne forme à l'esprit* (1990). Christian Baudelot and François Leclercq (2005, 45) for their part, are more to the point: "*Education provides intellectual, cultural as well as cognitive, logical and moral frames*"²⁷. Moreover, this culture is obviously not the only one with which students are in contact. To conclude this inquiry into the uninvestigated idea of the understanding or investigation of the social, I outline a brief model of these cultures in which students are immersed and that constitute the source of their personal constructions. There are four "ensemble de cultures", and each culture is itself diverse within each "ensemble", including educational cultures:

Universal mass culture, culture industries		Cultures of belonging
	Student	
Cultures of peers		Educational cultures

Educational cultures play an important role for the cultural and social integration of students but they are increasingly coming up against contradictory messages that other cultures spread about the issues that they deal with, about the knowledge and skills that they transmit, the thought and understanding of the social reality that they construct, and about values.

4. Suspension

Moving slightly away from the kind of writing normally appropriate for a scientific journal, I will here suspend this journey to further, build upon and document, in particular by empirical research, a cluster of issues. Some flow directly from the contents of this article; others arise from the extension of it. The elucidation of "registers" that divide reality and categorise and classify society in our subjects flows directly from this article. Rather than considering the contributions of our subjects through the prism of a coherent overview and elements that are well-defined among them, it is preferable to consider them in terms of "*îlots de rationalité*" (*little islands of rationality*) (Fourez 1992). Whether it be within clearly identified "registers", according to underdeveloped interpretive and analytical models, or by the study of issues having a certain space-time-society coherence that is precisely defined, the overall coherence of the world that our subjects construct remains open. Do they explicitly construct a "coherence"? The analysis presented above would make it seem doubtful. The idea of accumulation presented in the body of this article is one argument. Must we continue to look for it in the belonging to a political community, common goals, that have legitimated and continue to legitimate the presence of the three subjects? This coherence is thus more of an ideological coherence, giving its primary and positive meaning to this term. The inquiry into our common history and collective future accompanies the vision of the world invoked above. Adherence to the idea of the social sciences as socio-historical sciences entices one to seize on the concept of "plot" that is at the heart of any historical account (Ricoeur 1983-1985). What world(s) should we tell ourselves or tell our students? The tension lies between the affirmation or search for a common world, based on the political communities we belong to, which themselves are essential as they are democratic and expanded – more metaphorically than truly – toward the human community and toward the recognition of a plurality of worlds, of partial and mobile belongings. The concepts, categories and analytical models of social realities are directly related to the choices we make to manage this tension. This choice is not dictated by social realities but by the political conceptions we have of our future and the relationships those conceptions have with reality.

For their part, "educations for..." not only incite us to take up once again the dilemma between the fact of putting our students into direct contact with the world and its problems or putting them into

²⁷ « *L'éducation fournit des cadres intellectuels, culturels et cognitifs, logiques et moraux* ».

available subject constructions – constructions that result from the constant effort of preceding and contemporary generations to understand and rationalise the world. They call educational culture itself into question, its functions, modalities and its uses, not only because they are focussed on social preoccupations but also because they accord considerable importance to social behaviours, social skills that School strives to build and develop. The stake of the presence of our subjects at School is truly that of a return to the social world, a return following the detour that one can call the teaching of these subjects. The detour implies taking into account the specificities of the subjects – on the one hand, internal polydisciplinarity, mainly for history, geography and civic education (but other subjects related to social sciences must also be included in this effort), and on the other hand, external polydisciplinarity (and the relationship between the two in order to open rigorous avenues toward interdisciplinarity) – must still be put to the test.

Before coming to the final theme of this article, it is necessary to look back one last time. Throughout these pages, I have used the concept of *society* as though it were a fixed and widely accepted concept in the social sciences. This is no longer the case. The transformation of the world demand reconsideration of this notion. Many authors, too numerous to list here,²⁸ question the idea of society as being able to explain the present world and the way it is organised, to understand collective and individual human experience. This is not the place to embark on an inquiry into an abundant literature that, for the most part, belongs rather to the category of essays than to sociology or a rigorous social science based on investigation. Nevertheless, it is impossible to ignore it. Many indications, coming from diverse parts of the world, validate if not the totality of proposed analyses, at least the inquiries that underlie them. Mobility and urbanisation completely modify the relationship we build and maintain with the world and with others. Dubet (2002) and many others hold that the big institutions that frame and construct the social world, individual and collective and that were strongly controlled by the State – school, the army, the hospital... – but also the family, are in a state of crisis, to use a vague term. Belonging and identity are said to be mobile, temporary, multiple. We can no longer regard social science education as though all of these phenomena are neither consistent nor important.

Certainly, all of that transpires in a world riven with distinctions and differences. It would be perfectly wrong to consider that experiences such as mobility are universal or that they affect all humans in the same way. Business-class clients of airline companies and Chinese or Burmese (Myanmar) peasants chased off their lands or workers who lose their jobs and are obliged to find work several hundred kilometres from the rest of their families do not live in the same world. Thus, for example, Zygmunt Bauman (1999, 136) puts two worlds in opposition to one another: *“inhabitants of the first world are living in time; space does not count for them, as long as they can cover instantaneously all distances... Inhabitants of the second world live in space: a heavy, resisting, untouchable space that hold time and remove it from the control of the inhabitants”*²⁹. Between the two there is an infinite number of intermediate situations. Returning to (primary) school, this opposition alerts us to the fact that the temporal and spatial universes of our students are already defined. For example, for some, Europe and the world are already their spaces of thought and action; at the other end of the spectrum, for others, the local remains the realm of every day, of social relationships, initiatives, of life, but it is a "local" environment that is increasingly limiting and enclosing. It becomes even more complicated by the fact that our world remains profoundly divided into sovereign States, be they democratic or not, that remain the primary realm of creation of law – the law that organises and governs the lives of the majority of the world's population. Whether we like it or not, citizenship remains a status that is linked to belonging to a specific political community organised by a State. The relationship between the different "registers of analysis" that I interpreted as constitutive of the usual approach of our three school subjects is not easy to establish in teaching that has presented and continues to present the world according to division by States. The spatial and temporal division of politics, economics, society and culture obliges us once again to take up our tools of analysis and understanding of the present world. Whatever their contents, the social science subjects always have as their end the understanding of the real world, a necessary base for all of us, contemporaries of whatever generations we belong to, as we participate in the democratic invention of the future.

Finally, having sketched some aspects of educational factors that are not limited to our subjects, from *la forme scolaire* in general through to distinctions between educational levels and the age of students, this article has emphasised the content of knowledge specific to these subjects. Nonetheless, a more complete didactic analysis should include the conceptions of education and learning held by the actors at school, above all the teachers that implement these polydisciplinarity. In effect, these conceptions cut across the conceptions that these actors – that is, we ourselves – have of the social world. To weave relationships, build knowledge and skills

²⁸ For example, Dubet 2002, Zarifian 2005, Touraine 2004, Urry 2000, etc.

²⁹ « *Les habitants du premier monde vivent dans le temps ; l'espace ne compte pas pour eux, puisqu'ils peuvent franchir instantanément toutes les distances... Les habitants du deuxième monde vivent dans l'espace : un espace pesant, résistant, intouchable, qui enserme le temps et le soustrait au contrôle des habitants* »

between disciplines, put each of them at the service of an understanding of the real world and at the service of an active, civic presence in this world equally mobilises the conceptions we have of these subjects and the conceptions we have of their teaching and learning. And is all that not also a question of identities – both individual identities and collective identities?

References

- Audigier, François. 1991. Enseigner la société, transmettre des valeurs; former des citoyens, éduquer aux droits de l'homme – Une mission ancienne, des problèmes permanents, un projet toujours actuel. In: *Revue Française de Pédagogie*, Vol. 94, 37-48.
- Audigier, François. 1995. Histoire et géographie – Des savoirs scolaires en question entre les définitions officielles et les constructions des élèves. In: *Spirales*, Vol. 15, 61-89.
- Audigier, François. 2001a. Les contenus d'enseignement plus que jamais en question. In: Gohier, Christiane; Laurin, Suzanne, eds. *Entre culture, compétence et contenu – La formation fondamentale, un espace à redéfinir*. Outremont (Québec), 141-192.
- Audigier, François. 2001b. Le monde n'est pas disciplinaire, les élèves non plus, et la connaissance? In: Baillat, Gilles; Renard, Jean-Pierre, eds. *Interdisciplinarité, polyvalence et formation professionnelle en IUFM – Actes de l'université d'automne IUFM de Reims, 2 au 5 novembre 1999*. Reims, 43-59.
- Audigier, François. 2002. L'éducation civique dans l'école française. In: *Journal of Social Science Education*, Vol. 1 (2). (available at: http://www.jsse.org/2002-2/france_audigier.htm) published 2003/02/16
- Audigier, François; Tutiaux-Guillon, Nicole, eds. *Questions de curriculums*. (titre provisoire, à paraître)
- Bauman, Zygmunt. 1999. *Globalization – The Human Consequences*. Cambridge.
- Baudelot, Christian; Leclercq, François, eds. 2005. *Les effets de l'éducation*. Paris.
- Berthelot, Jean-Michel, ed. 2001. *Épistémologie des sciences sociales*. Paris.
- Bruner, Jerome. 1990. *Acts of meaning*. Cambridge, Mass.
- Bruner, Jerome. 1996. *The culture of education*. Cambridge, Mass.
- Chervel, André. 1988. L'histoire des disciplines scolaires. In: *Histoire de l'éducation*, Vol. 38, 59-119.
- Chevallard, Yves. 1985. *La transposition didactique – Du savoir savant au savoir enseigné*. Grenoble.
- Develay, Michel, ed. 1995. *Savoirs scolaires et didactiques des disciplines – Une encyclopédie pour aujourd'hui*. Paris.
- Dubet, François. 2002. *Le déclin de l'institution*. Paris.
- Forquin, Jean-Claude. 1974. Sur l'opposition du concret et de l'abstrait en pédagogie. *E.N.S.*, Saint-Cloud, document ronéoté, 26 p.
- Forquin, Jean-Claude. 1989. *École et culture – Le point de vue des sociologues britanniques*. Paris, Bruxelles.
- Fourez, Gérard. 1992. *La construction des sciences-Les logiques des interventions scientifiques – Introduction à la philosophie et à l'éthique des sciences*. 2^e éd. revue. Paris, Bruxelles.
- Godelier, Maurice. 1982. *Les sciences de l'homme et de la société – Rapport général au Ministre de la recherche et de l'industrie*. Paris.
- Lenoir, Yves; Sauvé, Lucie. 1998. De l'interdisciplinarité scolaire à l'interdisciplinarité dans la formation à l'enseignement – Un état de la question. Note de synthèse en deux parties. In: *Revue Française de Pédagogie*, Vol. 124, 121-153; Vol. 125, 109-146.
- Lenoir, Yves; Rey, Bernard; Fazenda, Ivani, eds. 2001. *Les fondements de l'interdisciplinarité dans la formation des enseignants*. Sherbrooke.
- Lévy, Jacques; Lussault, Michel, eds. 2000. *Logiques de l'espace, esprit des lieux*. Paris.
- Maulini, Olivier; Montandon, Cléopâtre, eds. 2005. *Les formes de l'éducation – Variété et variations*. Bruxelles.
- Passeron, Jean-Claude. 1991. *Le raisonnement sociologique – L'espace non-poppérien du raisonnement naturel*. Paris.
- Prost, Antoine. 2002. Argumentation historique et argumentation judiciaire. In: Fornel, Michel de; Passeron, Jean-Claude, eds. *L'argumentation preuve et persuasion*. Paris.
- Resweber, Jean-Paul. 1981. *La méthode interdisciplinaire*. Paris.
- Ricoeur, Paul. 1994. Histoire et rhétorique. In: *Diogène*, Vol. 168, 9-26.
- Ricoeur, Paul. 1983-1985. *Temps et récit*, tomes I, II, III, Paris.
- Sachot, Maurice; Lenoir, Yves, eds. 2004. *Les enseignants du primaire entre disciplinarité et interdisciplinarité*. Québec.
- Touraine, Alain. 2004. *Un nouveau paradigme pour comprendre la société d'aujourd'hui*. Paris.
- Urry, John. 2000. *Sociology Beyond Societies – Mobilities for the Twenty-First Century*. Londres.

Wallerstein, Immanuel. 1991. *Unthinking Social Science – The Limits of Nineteenth-Century Paradigms*. Cambridge.

White, John, ed. 2004. *Rethinking the School Curriculum, Values, Aims and Purpose*. Londres, New-York.

Zarifian, Philippe. 2005. *L'échelle du monde – Globalisation, altermondialisme, mondialité*. Paris.

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