
The Field of Knowledge and the Policy Field in Education: PISA and the production of knowledge for policy

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ABSTRACT This article is about the Programme for International Student Assessment (PISA) and its actors. It analyses the development and role of PISA as a 'cultural product' from the perspective of Bourdieu's field theory. The authors attempt to answer the following questions: Of which field is PISA the product? In which field and by whom is PISA used and 'consumed'? The authors argue that the development of PISA is part of a broader transformation of equilibria within the field of (education) knowledge – i.e. a move away from its autonomous pole towards its heteronomous pole. Such a move transforms the very form and shape of the field of knowledge: it has expanded and attracts a growing number of internal and external actors around its heteronomous pole. This (cor)responds to a transformation of the equilibrium within the general field of power, where the intellectual bourgeoisie (artists, professors, academics, writers) is increasingly subordinated to – indeed, sometimes working for – economic and political interests. The authors further argue that the incorporation of PISA at the level of education policy fields also transforms their form and shape in two main ways. Within policy fields, the diffusion and reception of PISA reinforces a heteronomous understanding of education which is defined mostly in terms of its contribution to external interests. The diffusion of PISA also extends and, in a sense, dissolves the very boundaries of (national) education policy fields. Specifically, the authors underline that such an internationalisation of the education policy fields progresses mainly at their heteronomous poles and through a heteronomous definition of education.

This article deals with the Programme for International Student Assessment (PISA) and analyses the role and development of PISA by using a specific theoretical framework – that of Pierre Bourdieu's field theory (especially as developed in Bourdieu, 1989, 1992). Analysing PISA with the aid of field theory helps us characterise and understand the different types of actors contributing to its development, and the specific situations and tensions they are faced with. It helps us make sense of their trajectories and understand their positions vis-à-vis other actors.

The uses of the concepts of cultural capital and habitus developed by Pierre Bourdieu have been much discussed in education research (see, for example, Atkinson, 2011), but, strangely, the literature has long remained silent on his theory of fields, although it lies at the heart of his work (Hilgers & Mangez, forthcoming). There have been a few attempts to use Bourdieu's concept of the field to study changes in the education sector. Grenfell and James (2004) offer an interesting perspective on how to use Bourdieu's concept of the field to study education research. They argue that it is possible to understand different research methodologies by studying the structure of their interrelations and the history of this structure. They further argue that the field of (education) research can be more or less subservient to external demands originating from outside the field

itself. They make a quite powerful and cogent point when they then argue that Bourdieu's theory implies that the more the field of research responds to such demands, the more likely it is to produce common-sense (and thus conservative) knowledge.

Rawolle and Lingard (2008) offer a further attempt to apply Bourdieu's concept of the social field to education and education policy. The authors are specifically interested in understanding relations between different fields. Unfortunately, they do not seem to take advantage of the theoretical principles offered by Bourdieu *to address this issue*: fields are spaces of oppositions and they are related thanks to the homology of their structures (Bourdieu, 1971a, p. 319; 1991a, p. 22). More precisely, Bourdieu hypothesises that there are structural affinities between individuals or groups occupying homologous positions in different fields. Hence, actors situated in a given position within a given field are likely to be interested by – and close to – actors who occupy a homologous position in another field. When studying the relation between the policy field and the journalistic field, for example, one should examine whether the specific positions occupied by particular journalists in the journalistic field do or do not correspond structurally, albeit indirectly [1], to the positions occupied by particular players in the policy field. Structural homology between different fields, which is the main key that Bourdieu offers for the analysis of relations between fields, results from the mediation of the field of power, as we will show below.

This article is both theoretical and empirical. It seeks to clarify (1) what field theory is and (2) how it can (and cannot) be useful for education research. Bourdieu's work comprises many publications (dozens of books and hundreds of articles), published over quite a long period of time (40 years). Such a legacy is open to diverse interpretations (but not *any* interpretation). In order to make good and precise use of field theory, it is necessary to begin this article with some theoretical statements that explain exactly how we understand and use Bourdieu's field theory in this article.

In the second part of the article, we will then attempt to apply this theoretical framework to the analysis of PISA, with a view to understanding its actors and the tensions and displacements they are encountering. We will argue that the development of PISA is part of a broader transformation of equilibria within the field of (education) knowledge – i.e. a move away from its autonomous pole towards its heteronomous pole. Such a move transforms the very form and shape of the field of knowledge: it has expanded and attracts an increasing number of internal and external actors around its heteronomous pole. This (cor)responds to a transformation of the equilibrium within the general field of power, where the intellectual bourgeoisie (artists, professors, academics, writers, etc.) is increasingly subordinated to – indeed, sometimes working for – economic and political interests. We will further argue that the incorporation of PISA at the level of education policy fields also transforms their form and shape in two main ways. Within policy fields, the diffusion and reception of PISA reinforces a heteronomous understanding of education, which views it mostly in terms of its contribution to external economic interests. The diffusion of PISA also extends and, in a sense, dissolves the very boundaries of (national) education policy fields. We specifically underline that such an internationalisation of education policy fields progresses mainly at their heteronomous poles (while their most autonomous poles appear weakened and fail to move beyond their local anchorage and propagate internationally).

Before we go on to develop our argument, some important theoretical statements about field theory must be made. What is field theory and how can we use it in education research?

Field Theory

As we have underlined and developed in more depth elsewhere (Hilgers & Mangez, forthcoming), in his field theory, Bourdieu shows how the process of modernisation of societies leads to the creation of relatively autonomous social spaces that respond to rules of functioning and institutions which are more or less specific to them. Bourdieu went on to apply, develop and refine his theory, bringing it to bear on a wide range of domains that seemingly had nothing in common, except for the fact of being specialised: religion (Bourdieu, 1971a, 1991c), education (Bourdieu, 1989, 1996a), science and knowledge (Bourdieu, 1983, 1991b, 1995), symbolic goods (Bourdieu, 1971b, 1977a, b), culture (Bourdieu, 1991a, 1992), the economy (Bourdieu, 1983, 2000), haute couture (Bourdieu & Delsaut, 1975), the state (Bourdieu, 1989), law (Bourdieu, 1986), politics (Bourdieu, 1991a), journalism (Bourdieu, 1996c) and so on (Hilgers & Mangez, forthcoming).

Each field has its specific rules. However, beneath the substantial variations that distinguish each of the fields and the specific rules of their functioning, it is possible to bring to light the invariants that shape and structure them. Specific cultural goods are produced in and by specific fields: the literary field, the scientific field, the field of architecture or that of automobile design, for example (Gartman, 2002). In all fields, actors are involved in a struggle for the definition of the legitimate symbolic structures (ways of doing, ways of thinking, principles of hierarchisation and so on) of the field. Fields generate instruments, ordering principles, specific rules, a *doxa* and so on, which result from the activity of the field and from the web of relationships among its different components and poles. The relations of opposition among the different possible positions in a field constitute the fundamental principle of its structuration.[2]

It is crucial to understand that the structure of any given field is likely to be affected by two competing types of forces: forces that are internal to the given field and external forces that originate from within the field of power (Bourdieu, 1971c, 1989, 1992).[3] Every domain of activity is, indeed, liable to be affected by the field of power. The autonomy of fields is thus relative. More precisely, each field is subject to two opposing principles of hierarchisation: 'an external or heteronomous principle of hierarchisation that applies to the field the hierarchy prevailing in the field of power, and an internal or autonomous principle that hierarchises in accordance with the values specific to the field' (Mounier, 2001, p. 71).

The Field of Power and the Relative Autonomy of Specific Fields

The 'field of power' is a key concept for understanding the *relative* autonomy of social fields, and hence the level of their deference to external demands (especially those of an economic kind) and the dynamics of interrelations between fields (Mangez & Liénard, forthcoming). The concept has often been misunderstood and it is therefore important to clarify it. The field of power is a field of a different kind from any other specific field. It is not related to a given sort of activity, as other fields are. Nor should it be confused with the political field, 'which is [a field] like any other' (Vandenberghe, 1999, p. 53). The field of power is 'a sort of "metafield" that regulates the struggles for power throughout all fields' (Vandenberghe, 1999, p. 53). It is situated at the dominant pole of the social structure (Bourdieu, 1983, p. 319) – i.e. in the space occupied by the dominant social class with its various kinds of elites. It is, in fact, the space where the dominant fractions of the social structure (the elites) compete with each other. More precisely, and fundamentally, two fractions compete with one another: an economic fraction and a cultural fraction. The economic fraction (usually situated at the top right-hand side of Bourdieu's schematisation of the social structure) is the dominant fraction of the dominant class, while the cultural fraction (situated at the top left-hand side) is the dominated fraction of the dominant class (see Figure 1). The field of power is thus structured by the opposition between cultural capital (dominated) and economic capital (dominant).

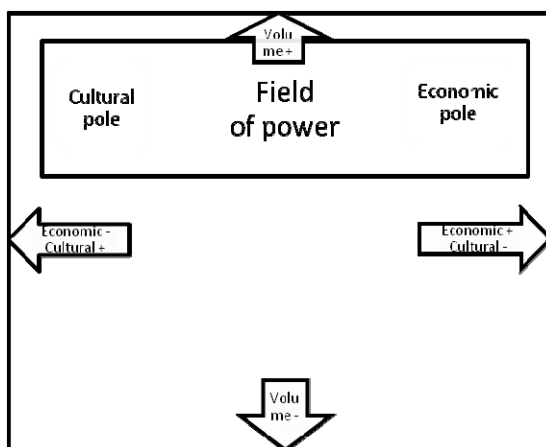


Figure 1. The field of power (adapted from Bourdieu, 1992, p. 178).

Every specific field is likely to be affected by the field of power by generating within its own structure two opposing poles that correspond structurally – albeit indirectly and in a more or less refracted and ‘misrecognisable’ (*méconnaissable*) form – to the two competing poles of the field of power (see Figure 2). The literary or artistic field, for example, will generate an ‘autonomous [pole]’ (e.g. art for art’s sake)’ and a heteronomous pole ‘favourable to those who dominate the field economically and politically (e.g. “bourgeois art”)’ (Bourdieu, 1983, p. 321). Hence, in the literary field, new avant-gardist products are opposed to mass products, just as the pole of ‘high culture’ is opposed to another pole producing commercial goods in the artistic field. Following the same logic, in the field of science, fundamental research (knowledge produced for the sake of knowledge) is opposed to more applied or policy-oriented forms of knowledge production (Bourdieu, 1995). In education, one can also note an opposition between those who conceive education as an autonomous domain primarily concerned with cultural matters and those who emphasise education in relation to external concerns such as economic prosperity and competitiveness. All such oppositions are the refracted and more or less misrecognisable manifestations of, respectively, the cultural and the economic poles of the field of power.

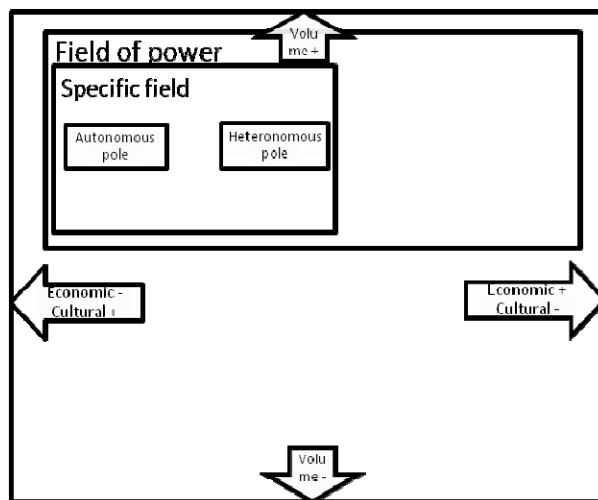


Figure 2. The field of power and its relation to specific fields (adapted from Bourdieu, 1992, p. 178).

Fields of Knowledge

Fields of knowledge are of particular concern to us because of our empirical object of study. Indeed, we will further argue that the development of PISA must be understood in relation to the growth of the most heteronomous pole of the field of knowledge about education. Fields of knowledge, like all fields, undergo/respond to two kinds of forces: internal forces (including oppositions and struggles) that originate within the field and external forces that originate from outside the field. The balance between these two ‘principles of hierarchisation’ determines the degree of autonomy of the field. When the internal forces outweigh the external forces, the field is said to have a relative autonomy, and it is hence more likely to attain/pursue its (self-assigned) goals. When external forces predominate, then the field is said to lack autonomy, and it is less likely to function according to its self-defined rules and principles. Since no field is completely autonomous or completely heteronomous, it can be said that all fields will generate two poles (cor)responding to the two kinds of forces identified above: the autonomous pole of ‘restricted production, in which the producers produce for other producers’ (Bourdieu, 1983, p. 320), and the heteronomous pole of ‘mass-audience’ production, in which the products more or less explicitly and visibly fulfil an external demand (sometimes an explicit ‘commission’) originating from the dominant pole of the field of power (i.e. the economic pole and/or its political relay).

Hence, fields of knowledge are likely to be structured around two opposing poles. One seeks to emphasise the value of knowledge for its own sake (fundamental research, theoretical work, a

restricted audience), while the other is more likely to conceive of knowledge as a means whose value depends on its utility (applied research, mass production for a wide audience). Among all fields of knowledge, the situation of the subfields of ‘soft’ knowledge (such as the social sciences) is peculiar. Social sciences (and hence education research) are in a complex and ‘unique situation’ (Bourdieu, 1991b, p. 375) because ‘[t]heir object, and therefore what they say about it, is politically contentious – a fact that brings them into competition with all those who claim to speak with authority about the social world, writers, journalists, politicians, priests’ and, increasingly, lay people (Bourdieu, 2000, p. 112). Fields of knowledge in the social sciences are therefore particularly exposed to ‘politicisation’ simply because they are engaged, whether they know it or not, ‘in the symbolic struggles for the imposition of the legitimate principles of vision and division of the social world’ (Bourdieu, 1991b, pp. 375-376). This makes it much more likely that their heteronomous pole will attract external demands and ‘benefit’ from them, to the detriment of their autonomous pole. According to Bourdieu (1991b), this is one of the major risks faced by social sciences, and by sociology in particular.

Field Theory and Cultural Change

Bourdieu’s field theory comprises a theory of cultural change (Gartman, 2002) which offers important insights for understanding the social status and trajectory of cultural goods, including forms of knowledge.[4] It explains how innovative cultural goods are usually first produced by an avant-garde situated at the lower level (bottom) of the autonomous pole (position A) of their field – whether it is the literary field, the scientific field, the field of arts or any other ‘cultural’ field (see Figure 3). They attempt to produce ‘pure’ products (art for art’s sake, knowledge for the sake of knowledge), they look for recognition by their peers and they try to distinguish themselves from the more established senior figures of their field who are situated higher up (the consecrated avant-garde) on the autonomous pole of the field (position B). As the avant-garde gains access to symbolic recognition, they and their products move up (from A to B – i.e. consecration) towards the more consecrated avant-garde. From then on, successful producers are more likely to ‘sell out’ and be attracted by the more heteronomous pole of the field. Hence, they move laterally (from B to C – i.e. ‘selling out’) towards heteronomous interests. Products that are used and consumed by the dominant economic interests are eventually likely to become mass products (moving from C to D – i.e. massification).

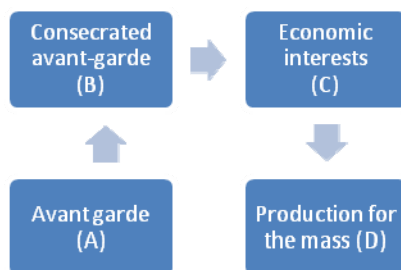


Figure 3. Bourdieu’s theory of cultural change and the ‘inverted U-curve’ (the Figure is ours, inspired by Gartman, 2002, p. 259).

It is important to underline that the characteristics of the products and their utilisation will vary as they move along this ‘inverted U-curve’ (from A to B, from B to C and from C to D). As cultural goods move from one social space to another, they are reconstituted or reinterpreted to suit the requirements and the ‘logic’ of that space: translation from one social space to another is necessarily accompanied by a transformation of meaning and form. The products produced on the left-hand side (pole A or B), originally for consumption by the producers’ peers (a restricted audience), are constructed according to the internal rules of the field, and that gives them specific characteristics. Once attracted towards the right-hand side (pole C), their meaning, purposes and conditions of fabrication evolve. Indeed, they are then designed to support external interests –

hence, their meaning and form are defined accordingly (rather than according to the internal requirements of the field).

The discussion so far has been intended to establish the basis for an analysis of the development, the conditions of production and the use of PISA. These elements form a theoretical framework which will serve our empirical analysis in the second part of the article. In order to understand the development of PISA, one also needs to articulate an analysis of the changes that have taken place in the field of power, in the policy field and in the fields of knowledge. Changes in these fields are interconnected (and 'homologous').

The Changing State of the Field of Power

The Subordination of Cultural Capital to Economic Capital

Transformations [5] of the equilibria in the field of power have more or less direct effects on the internal dynamics of specific fields. The current growth in the relative value of economic capital that characterises our neo-liberal societies tends to reduce the autonomy of the fields. More precisely, it tends to constitute and to reinforce, within each specific field, a specific pole that responds to and serves heteronomous interests.[6] Transformations of the equilibria in the field of power are particularly complex. We argue that, in the present day, it is the very nature of the relationship between economic capital and cultural capital that is at stake and being transformed. Bourdieu assumed that the field of power was fundamentally structured by the *opposition* between, on the one hand, those who have more wealth than culture and whose position is being reproduced thanks to their economic capital, and, on the other hand, those who have more culture than money and who distinguish themselves thanks to their cultural capital. The stakes in the field of power were then centred on the balance between economic and cultural capital. While we agree with this general understanding of the field of power, we also argue that the current changes in the field of power do not stem from a decline in the importance of cultural capital. On the contrary, cultural capital has become more and more central and important, to the point of becoming an essential resource for the (re)production of economic capital. Hence, cultural producers from all fields are under pressure. They are increasingly urged to provide evidence that shows how their works contribute to the economic development of society at large. One can understand the very essence of the idea of a 'knowledge economy' with field theory, as a situation where cultural capital becomes a necessary resource for the 'reproduction' of economic capital – i.e. an economy (economic capital) where knowledge (cultural capital) becomes a means that serves to add value in/to the economy (Ozga, 2008). In other words, if the current situation of the field of power severely restricts (the autonomy of) cultural capital, this is not so much because the value of cultural capital has diminished, but rather because its status has changed – it must now serve heteronomous interests. It is increasingly subordinated to heteronomous ends. Hence, the relationship between cultural capital and economic capital is no longer an *opposition* – it has become a relationship of *subordination*. Such a transformation in the field of power affects the specific fields in various ways.[7]

Changes in the Policy Field: a new demand for knowledge

The policy field is affected by such a transformation in the field of power. It has become less autonomous and must now respond to international pressure for competitiveness. Policy fields across the globe are subjected to external forces of an economic kind. The rules of the game in the policy field have changed accordingly. The old problem for policy makers, which bureaucracy sought to solve, was that of the construction of the state. The issue was to construct (the autonomy of) national policy fields. The new problem is that of the positioning of the nation and its regions within an international space. Policy actors are increasingly urged to show that their actions will meet defined targets. More precisely, they must show that their choices will help the positioning of 'their people' in an international space of positions. They must provide proof of the relevance and efficiency of their choices. Such a transformation of the rules of the policy field has generated a new demand – a demand for 'knowledge for policy'. Knowledge, then, matters for policy makers to the extent that it becomes a resource in their endeavour to make their policies robust, authoritative,

effective and so on. Scientific methods of investigation – including inspection, consultation and focus groups, as well as more quantitative methods – are increasingly being incorporated into the policy process.

This demand has, in turn, affected most fields of knowledge (and those concerned with social science in particular). It has contributed to reinforcing the heteronomous pole of the fields of knowledge – i.e. the pole that produces knowledge which is meant to be used and consumed (and useful) outside the field itself. The heteronomous pole produces knowledge for the economy, knowledge for policy; it produces knowledge-based governing tools. It produces devices such as PISA.

Understanding PISA with Field Theory^[8]

So, of which field is PISA the product? By whom and for whom is it produced? In which field and by whom is it effectively consumed? As suggested by Bourdieu (1992, 1996b), we will distinguish two interrelated aspects of the problem: the production of cultural goods and their consumption. In our case, this means the production and reception (and utilisation) of PISA.

The Production Side and the Field of Knowledge

Understanding the production of PISA with field theory requires that it be situated within a history of cultural change that links it to its predecessors (Carvalho with Costa, 2009). The product is currently being produced and consumed by specific actors, but where does it come from historically and how can we understand its current position? We will argue that the development of PISA followed the path of the inverted U-curve that Gartman (2002) identifies in Bourdieu's work.

Actors

When looking back in time at PISA's predecessors and antecedents, one finds experiments, surveys, discussions, meetings and groups of people concerned with researching education with a scientific perspective (Nóvoa & Lawn, 2002; Bottani, 2006; Morgan, 2007). The path one reconstitutes appears 'internal' to the field of knowledge. It was predominantly inhabited by researchers and academics. Before the existence of PISA as such, experiments were first constructed at the autonomous pole of the field of knowledge. International networks in education research have been active for a long period of time. Research in education produced methods, knowledge and know-how for measuring the results of students. As Carvalho (2009) shows, according to Bottani (2006), the first major effort to achieve a comparative international assessment of pupil performance was presented by Benjamin S. Bloom from the University of Chicago in 1958; it was then implemented between 1959 and 1961, and the data was analysed at Columbia University and published in 1962 (see also Morgan, 2007). Some works go even further back in time and show the long-term history of statistics in the field of knowledge about education. Such efforts were clearly situated near the autonomous pole of the field. They were not primarily produced as a response to an external demand. These were researchers and academics who were trying to extend their knowledge base about education, hence developing new techniques, extending their data-collection capabilities and so on.

Historical accounts (Nóvoa & Lawn, 2002; Bottani, 2006; Morgan, 2007, 2009; Carvalho with Costa, 2009) all identify the International Association for the Evaluation of Educational Achievement (IEA) as a key actor along the historical path to PISA. Compared to the Organisation for Economic Co-operation and Development (OECD) and the PISA enterprise, the IEA was closer to the autonomous pole of the field of knowledge – i.e. it was closer to the research community. As Carvalho notes, the IEA was initially directed by William Douglas Wall, who was trained at the University of Birmingham from 1945 to 1954 (PhD in Psychology), founded the *Education Review* and was director of the National Foundation for Educational Research in England and Wales from 1956 to 1968 (Carvalho with Costa, 2009). His successor, Torsten Husén, was also a well-trained academic who taught and worked notably in the USA (for example, at the University of Chicago

and Stanford University). During his time at the head of the IEA, he continued publishing in peer-reviewed journals and supervising PhDs. More generally, members of the IEA had a high academic profile – they were often positivists interested in research findings in the form of ‘generalizations about education that transcend national boundaries’ (Postlethwaite, 1999, quoted in Carvalho with Costa, 2009, p. 29). They were interested in finding ‘fundamental truths’ about education. Of course, they were concerned that such findings could ultimately help define ‘the best teaching system’, but their first anchorage was, and remained, clearly in the academic subfield.

It was only later on, and gradually, that this type of knowledge came to interest actors external to the field of knowledge as such. Historically, such an external interest – which is obvious today – originated from different processes. Some researchers and academics themselves explicitly urged policy makers to take their work into account. There are many examples of such appeals. In an article published in the *Comparative Education Review* in 1974, De Landsheere and Grisay offer a comparative analysis of the results of several education systems, and their very final word is for their public authorities, not for their peers: ‘if our educational authorities understand the message, IEA time and effort will not have been wasted’ (de Landsheere & Grisay, 1974, p. 195). A number of other examples show that some in the scientific community have tried to attract policy makers’ attention.

However, this is probably not the main reason for the progressive move of that kind of knowledge in the direction of the heteronomous pole of the field of knowledge. The development of the knowledge economy and the transformations of the rules of the game in the policy field were also important. As we have shown earlier, changes in the policy field increased the pressure on policy makers. This, in turn, generated a demand for knowledge of a special kind: knowledge for policy.

It is quite obvious that the last four or five decades have been marked by a very significant development of external demands addressed to those in the field of knowledge (Gibbons et al, 1994), and maybe more specifically to those producing knowledge about education. Such a demand for ‘useful’ knowledge goes hand in hand with a critique of education research. In fact, there has been a sustained attack by economic and political actors on autonomous educational research, claiming that it has had too little impact on education practice and policy (Grenfell & James, 2004). Critiques of the quality and relevance of education research have, indeed, been quite intense in the last decades (see Hargreaves, 1996; Prost, 2001). Such an attack was also the other face of an external demand for knowledge:

In the 1990s, most major education journals and many handbooks of research methodology in the UK [United Kingdom] and abroad hosted extensive debates on the (questioned) quality of educational research. The critical stances expressed the dissatisfaction of almost all the groups directly involved with educational research: practitioners, decision-makers, researchers. (Oancea, 2005, p. 157)

For a significant period of time, as underlined by Carvalho and others (Bottani, 2006; Morgan, 2007; Carvalho with Costa, 2009), the IEA enjoyed a kind of monopoly: it was the only organisation carrying out those kinds of international comparisons. This monopoly declined and, progressively, the OECD, through PISA, took the lead. The progressive investment of the OECD (Carvalho with Costa, 2009, p. 25) in education affairs and, more precisely, in education research represents a critical element in the general transformation of the shape of the field of knowledge about education. The role of the OECD was twofold: it encouraged a demand for knowledge and, through PISA, it organised a response to that demand.

In terms of field theory, such a displacement (from the IEA to the OECD) signals a more general change in the field of knowledge about education: a move from autonomy to heteronomy. Several empirical elements support such an argument. First, the OECD is, by definition, meant to contribute to economic development and to provide support to policy makers. In contrast to the IEA, it is not mainly a research-based institution. Hence, the PISA instrument was – explicitly – conceived as a decision-support instrument, not as a research-oriented programme. It was introduced as a mechanism for the external evaluation of educational systems, generating knowledge designed to facilitate and support policy decisions.[9] In fact, PISA includes a discourse about how it should be consumed – and by whom – which is rooted in the evidence-based policy model: PISA is presented by its promoters as something that is meant to be consumed by the policy

field (and, more precisely, by the heteronomous pole of the policy field). As Grek (2010, p. 399) puts it: 'PISA is the OECD's platform for policy construction, mediation and diffusion at a national, international and possibly global level'. Secondly, the move away from the IEA towards the OECD resulted from the fact that political and financial support was no longer given to the IEA. It was the demands and needs expressed in the (US) policy field that contributed to the gradual switch from the IEA (which lost its funding) to the OECD (Morgan, 2009). Another clear indication about the position of PISA in the field of knowledge can be found in the communication strategies developed by the OECD. These strategies clearly show that the 'product' is not meant to be 'consumed' primarily by the research community, as is normally the case at the autonomous end of the field. Here, with PISA, what we see is a product for the public and the authorities. Yet another argument is to be found in the very nature of the assessment of the students. The OECD (through PISA) promoted the evaluation of the skills and competences of the students, while the data used by the IEA was a curriculum-based type of data. Such a change increased the relevance of the data in regard to the contribution of education to real-life activities and economic performances. We must also underline that the work process put in place by the Australian Council for Educational Research for generating the instrument evolved so as to involve representatives from the OECD member states in the process, through the development of a consensus model of decision-making (Morgan, 2007; Carvalho with Costa, 2009). Such a change, which gives a voice to actors external to the field of knowledge, also supports the argument of a move from autonomy to heteronomy.

Hence, we can speak of a twofold displacement originating from distinct internal and external positions, yet converging towards the same pole: the displacement of some of the autonomous researchers who decided to include, in their work and in their thinking, principles and actors originally external to their field (in terms of field theory and our schematisation in Figure 3, one could argue that they moved laterally from pole B to pole C) and the displacement of external actors who entered the field of knowledge by means of their enrolment in the PISA enterprise.

The study of the construction and reception of PISA, undertaken across diverse European contexts, shows a significant number of actors whose characteristics and activities correspond to what one would expect to find at the heteronomous pole of a cultural field [10]: intense forms of interaction between scientific and policy-oriented elements. The case of Gábor Halász in Hungary is an exemplar of a career that has been continuously played out at the interface of science and policy/politics. He was, successively, head of the governing board of the OECD's Centre for Educational Research and Innovation and head of the Hungarian Ministry of Education's background Institute for Educational Research and Development; he was involved as an expert in various projects of the World Bank and the European Commission, and is an internationally renowned expert in education policy, regulation and comparative education research. Hence, he has 'always played a key role in informing educational policy makers about the OECD's education related activities' (Rostás et al, 2009, p. 13). Today, he has a lively network made up of various types of actors: politicians, scientists, experts from the OECD and so on. These cases, and many others, are illustrative of the move that took place within the field of knowledge, from its autonomous to its heteronomous pole.

Resources

According to field theory, economic, cultural and symbolic resources are unevenly distributed within fields. The autonomous pole of any given field has the highest level of cultural capital (especially the type of cultural capital specific to the field) and a more modest level of economic resources. Symbolic recognition is also usually higher at the most autonomous end of the field. The heteronomous pole of the field, on the other hand, is more likely to attract/generate economic capital and less likely to accumulate cultural and symbolic resources.

One can examine PISA by looking at the types of resources required for its development. PISA is a large and complex assemblage that involves coordinating a massive number of individuals and a great diversity of competences. Some contribute to its internal validity; others contribute to its prestige (which may, in turn, attract resources – human or other – that strengthen its validity and/or its external relevance and diffusion). Still others are concerned with its external relevance or with its distribution to its users. What is remarkable about PISA is that it corresponds to a situation

where the heteronomous pole of a field has attracted economic, cultural and symbolic resources simultaneously. It is, indeed, important to acknowledge the diversity, quality and great volume of resources that support the instrument. The construction of PISA required a significant volume of economic resources (external resources situated at pole C); it also crucially required cultural resources (in the form of scientific support from pole B); and, finally, its success also came from the symbolic significance attached to the OECD (in the global policy field). The symbolic attractiveness of PISA also comes from its international dimension. A Portuguese member of the governing board, when asked about the involvement of Portuguese education specialists in the making of PISA, underlined that 'they saw it as something important and the fact that it was international, in itself, represented a captivating dimension' (Afonso & Costa, 2009, pp. 23-24). The symbolic value of PISA also comes from the high level of ambition that it pursues: providing high-quality data about education to nations across the globe.

Thus, what is very specific about the heteronomous pole of the field of educational knowledge is the level of external resources that it has attracted and continues to attract. Material resources, in particular, have accumulated at that end of the field: the production of knowledge for policy in education necessitates a significant level of financial investment. Such types of resources (economic and symbolic) have helped attract academics and researchers (cultural capital) – some of them moved towards the heteronomous pole. Their move, in turn, increased the cultural resources essential to securing the quality of the PISA products. The move undertaken by some researchers who became involved in the PISA enterprise should be seen as particularly complex, as it requires several types of capital (for example, linguistic capital or expertise in statistics) and it involves the risk of being called into question by the scientific community. Of course, there are also possible benefits from such an investment in policy-oriented knowledge formation. It can be an opportunity for expanding and extending one's social capital quite significantly and on an international basis. It can also help secure some material resources for research and help one gain access to interesting data. This means that, in some cases, investing in the heteronomous pole of the field might generate some positive returns for further use in the autonomous pole, and hence for the development of autonomous research and critical knowledge. This, however, is quite difficult. It takes time and it requires a lot of reflexivity and also a great deal of energy to be able to fulfil all the obligations related to the requirements of the heteronomous pole and yet be able to detach oneself from such external demands so as to meet the requirements of the autonomous scientific pole of the field. These researchers must be able to understand and play at both ends of the field. They must be able to function according to two kinds of rules. In a sense, it requires that researchers are able to play a sort of double game.

Thanks to the accumulation of such resources, one could argue, a product such as PISA, although not produced for the sake of knowledge or conceived as cutting-edge research aimed at generating breakthrough findings, does attain some critical level of quality. It respects some of the requirements inherited from autonomous research and, at the same time, many of its characteristics are constructed so as to match the external demand it is supposed to fulfil. For example, the sampling criteria (testing pupils at age 15 regardless of their personal trajectory and regardless of the structure and logic of their school system) or other principles (testing pupils regardless of the curriculum they follow), which are central for the external success of PISA, are meant to make the results useful for the policy field.

The Consumption Side and the Policy Field

In which field and by whom is PISA consumed? Whose demand does it fulfil? We have already suggested that the knowledge which PISA produces is not valued by the field of knowledge as such. As regards the extent of the data that PISA generates and makes available to researchers, the number of scientific papers published on the basis of an exploitation of such data is limited. PISA is not primarily consumed in/by the field of knowledge. Nor was it ever meant to be.

It is, on the other hand, clear that PISA is consumed by a diversity of actors in the policy field and in the wider population. Field theory implies that products produced in heteronomous field locations are meant for a wide audience of non-specialists. Some authors have even referred to PISA as an 'international spectacle' (Nóvoa & Yariv-Mashal, 2003, p. 427). PISA reaches a large

audience. It is received and consumed by a diversity of actors situated in diverse (national) policy fields.

What does this mean in terms of field theory? The definition of the legitimate means for evaluating a field's central activity is a key issue (if not *the* key issue) in any specific field. In any given field, there are (more or less constant) struggles over the definition of the legitimate means of understanding and evaluating what goes on in the field. And PISA plays this role: it has become a legitimate instrument of measurement for defining the performances of education across different (national) policy fields. This means that national policy fields have lost their ability to circumscribe within their own limits the struggles over the definition of the legitimate means of making sense of (evaluating, defining) their central activity. The wide diffusion/reception of PISA partakes in the transformation of the very meaning of education and reinforces a heteronomous understanding of education. Education and education policy are being understood through their outputs and their contribution to external ends. The very meaning of education is, then, increasingly constructed in terms of measurable outputs. To a certain extent, national policy fields have lost the ability to understand themselves in their own terms. Hence, their very existence as autonomous fields has weakened, and their role and meaning have changed (Dale, 2005). They have become players within a wider – European or global – field or space (Lawn & Lingard, 2002). We can therefore speak of a process of internationalisation of education policy fields (Rawolle & Lingard, 2008) that progresses through the expansion of their heteronomous pole.

The wide diffusion of PISA makes it look like a *doxa* – i.e. a product which goes more or less unchallenged all over the (national) policy fields. It is worth noting, however, that in distinct European locations, some actors from the policy fields (though in the minority) are reluctant to give too much importance to the PISA results. They agree that the survey provides them with some interesting information about their education system, but they understand it as partial and ideological, and underline that there are also other ways of thinking and other tools for understanding education, and they resist giving PISA the capacity to dictate their policy choices. In many cases across Europe, such actors are situated on the left-hand side of the policy field and/or in 'dominated' countries (often in eastern Europe). Another, quite distinct, form of resistance can be found in some cases when 'old', conservative and once dominant actors feel threatened by the development of the instrument. At one point in time, this was the case of the inspectors in France (Mons & Pons, 2009). Their own position within the French education policy field was typically that of the 'consecrated policy elite' (the autonomous high-status education policy elite). They benefited from important symbolic resources and would disregard PISA as rather vulgar. Such an attitude, however, did not last, especially among the new generations of inspectors (on this topic, see Grek, forthcoming).

PISA is widely diffused and has become inescapable across national policy fields. However, its reception is far from being a simple process. As we underlined earlier, when cultural goods move from one social space to another, they are reconstituted or reinterpreted to suit the requirements and the 'logic' of that space (with its internal structure and its diverse positions and oppositions). When PISA is being 'consumed', it is, indeed, also being transformed. And it is being transformed according to the logic of the social space where it is being 'consumed'. Several observations can be made with regard to this process.

First, there is a general process of simplification of the PISA 'product' that takes place between the stage of its production in the field of knowledge and that of its reception in the policy field. The product that is consumed is less complex and less elaborated than the product that was initially produced. The reception of PISA is often discursive, superficial and unaware of the real complexity of the initial product – only some of the final results are actually incorporated into the policy field. In other words, the reception/consumption of PISA is an act of transformation/reconstruction that reduces its initial complexity and translates it into a limited number of simplified statements, generating what Bourdieu would have called a 'vulgate'. Such a simplification can be understood as a response to the requirements from the policy field (especially its rules of communication).

However – and this is our second main point – the fact that things are being simplified does not mean that their meaning is not disputed. The reception of PISA is not a simple and unproblematic process; rather it must be understood as a productive process, a meaning-making process, where struggles over the political signification and policy implications of PISA take place.

While we have some evidence that PISA is widely distributed and known, the evidence also shows that it is not necessarily received in the same way at all ends and in all parts of the policy field(s). There are conflicting views and conflicting interpretations, as 'recipients ... reinterpret the texts in accordance with the structure of the field of reception' (Bourdieu, 1999, p. 221). In our study of the reception of PISA in various contexts across Europe (Bajomi et al, 2009; Carvalho with Costa, 2009; Cattonar et al, 2009; Grek et al, 2009; Mons & Pons, 2009; Rostás et al, 2009), we show how the PISA results are often incorporated into debates between competing and pre-existing policy options (policy positions) which to some extent reflect the structure of the field (Cattonar et al, 2009). These debates, across the policy field, set the various education policy actors against one another according to the lines of division that structure the field (left versus right in many instances, and other more particular lines like Catholic versus non-Catholic, or private versus public policy actors). All such poles and positions take different interests in PISA and promote contrasted and sometimes conflicting interpretations regarding the problems revealed in the PISA studies (weak results versus disparities in results; inefficiency of the system versus inequality in the system) and regarding the solutions to such problems (giving priority to the weakest students versus giving priority to the performance of all students or the strongest students; regulating the system through the market versus regulating the system through the state; structural reform versus pedagogical reform).

What this means more generally is that those who 'consume' PISA are driven by distinct forces which lead them to use and interpret PISA in different ways. Now, as Bourdieu (1991a, p. 233) underlines, the same 'structure which organizes the field as a whole can be reproduced in each of its points'. There are 'wheels within wheels' in the functioning of fields. The very opposition between autonomous and heteronomous views on education can be played out at different levels, including *within* the PISA enterprise as such. PISA is produced by/at the heteronomous pole of the field of knowledge and away from its most autonomous pole, but there can also be autonomous and heteronomous ways of conceiving and using PISA. It is, then, possible to hypothesise, with field theory, that the more one sees education in relation to heteronomous ends, the more one will use and interpret PISA in a certain way, while, conversely, those who view education as an autonomous cultural activity will tend to use and interpret PISA in a different way, with a different focus. In other words, different types of elite – occupying distinct positions within the field of power, as schematised in Figure 1 – will interpret and use PISA differently.

A central divide that can be found in diverse policy locations across Europe opposes those who interpret PISA primarily in terms of issues of inequality (and inequity) to those who prioritise issues of quality and performance. According to field theory, those among the elite who are more likely to emphasise the issue of inequality are those who occupy a position within the field of power homologous to the position that the real victims of inequality occupy in the wider social space (the field of class relations). In other words, those dominated in the field of power are more likely to support those dominated in the wider field of class relations, since these two positions are related through a homology of position. There is, in fact, a

homology between the dominated position of the producers of cultural goods within the field of power ... and the position within the social space of the agents who are most completely dispossessed of the economic and cultural means of production. (Bourdieu, 1991a, p. 244)

One can, then, understand sociologically why the most autonomous actors in the field of education knowledge, when they intervene in the policy field and speak about the survey, tend not only to be critical of PISA, but also to favour an understanding of its results that focuses on the issue of inequality. On the other hand, those among the elite who are more likely to focus on performance and quality are those most concerned with the economic impact of education. Things are, however, even more complex, since there can, in fact, be different reasons for underlining issues of inequality, including heteronomous market-oriented (or performance-oriented) reasons (driven, for example, by the human capital theory). Here, again, as Bourdieu (1991a, p. 233) emphasises, the same 'structure which organizes the field as a whole can be reproduced in each of its points'.

Conclusions

In this article, we have tried to analyse the PISA enterprise with Bourdieu's field theory. This attempt will undoubtedly need some refinements and enrichments. For instance, it will be worthwhile to examine in more depth how the changes in the field of knowledge have affected the rules of the field (in particular regarding its relative eclecticism, its discipline and its rhythm). Field theory has proved useful for understanding PISA as an instrument that cannot be unproblematically categorised as exclusively concerned with either knowledge production (in the field of knowledge) or policy formation (in the policy field). PISA originates in the field of knowledge but functions as a policy instrument, which is typical of products produced in heteronomous field locations.

The development of PISA shows a transformation of the very structure of the field of knowledge, which is characterised by a decline in the relative autonomy of the field and the correlative strengthening of the pole of knowledge production aimed at responding to external demands. Such a change, which goes back a long way but has intensified with PISA, takes place through two concomitant displacements, originating from quite distinct internal and external positions, yet converging towards the same pole: the displacement of some of the autonomous researchers who agreed at one point to 'sell out' their products and competences, attracted as they were by the symbolic gains they could expect to benefit from once they were serving external interests (i.e. a move away from research-oriented knowledge towards policy- and economy-oriented knowledge, which is also a move from a high-level, restricted audience to mass production), and the displacement of external actors who entered the field of knowledge by means of their enrolment in the PISA enterprise. Both displacements are oriented towards the same position within the field of knowledge: that of the heteronomous pole – i.e. a space where internal and external actors work together. There, knowledge and policy are commonly, and perhaps inevitably, 'co-produced'. What is very remarkable about PISA, however, is that it has reached a certain level of quality despite its heteronomous location. As we have underlined, this is due to the fact that the PISA enterprise has managed to attract and accumulate both cultural and economic capital in the same location (the same social space). It is, in this sense, also typical of a situation where the intellectual bourgeoisie works together with (and possibly 'for') some fractions of the economic bourgeoisie.

The study of the reception of PISA in the education policy fields across Europe first reveals the large diffusion of the instrument. However, if the great majority of actors from the education policy fields 'consume' PISA, they do not all interpret it and use it in the same way, nor do they all give it the same kind of credit or learn/promote the same lessons from the survey. Thanks to their relative autonomy, policy fields may incorporate PISA and refract it according to their internal lines of division. Thus, to the external observer, PISA seems to function as a rather malleable product – i.e. one that can help achieve different purposes, support different arguments and hence be found useful by different kinds of actors occupying different positions within policy fields and in the field of power. A key issue for further research will be to understand whether and how the development of instruments such as PISA constructs a global or European policy field which alters the role and the very meaning of the 'national'.

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Notes

- [1] There is a dynamic, indirect and sometimes misrecognisable correspondence between the objective divisions of the social world, social structures and the mental structures that agents mobilise in order to act in a world structured in this way (Bourdieu, 1989, p. 7). In their position-takings within a given

field, persons and groups – sometimes unconsciously – pursue interests linked to their positions, which may consist in preserving or transforming the position they occupy and the resources associated with it. Hence, when acting in different specific fields, those who occupy a homologous position (for example, a dominated position) will tend to be related to each other by an invisible homology of position. This is how, for example, Bourdieu builds up what one could call *a sociology of Marx's sociology*, emphasising that the sociological reason why Marx could develop a theory tending to serve the objective interests – and hence transform the position – of ‘the most completely dispossessed of the economic and cultural means of production’ is because he and they occupied homologous positions. As a producer of cultural goods he was dominated among the dominant within the field of power, while they occupy a dominated position within the field of class relations (Bourdieu, 1991a, p. 244).

- [2] Objectifying a space of positions presupposes that one relates each individual to a system of coordinates that enables him or her to be situated objectively in a space structured by various dimensions. Each dimension must correspond to a type of resource (capital) that is effective within the field. Indicators (material and immaterial properties) adapted to the particularities of the field in question must be devised in order to make it possible to objectify the resources of the agents in the field.
- [3] Bourdieu introduced the notion of the field of power in ‘Champ du pouvoir, champ intellectuel et habitus de classe’ (Bourdieu, 1971c), and he continued developing it, especially in *La Noblesse d'état* (1989) and *Les Règles de l'art* (1992).
- [4] Gartman (2002) offers one of the most illuminating presentations and utilisations of Bourdieu's theory of cultural change. He shows that Bourdieu's field theory implies that cultural innovations ‘follow the path of an inverted U-curve. They start at the bottom of the restricted subfield among unknown avant-garde artists, rise to the top of the subfield as works of the consecrated avant-garde, and then migrate laterally to the top of the large-scale subfield as bourgeois art, until imitation by the petty bourgeoisie lowers them to the status of commercial art’ (Gartman, 2002, p. 259).
- [5] For more details about how change is conceived theoretically in Bourdieu's framework, see Bourdieu (1991b, esp. p. 379). See also Hilgers and Mangez (forthcoming).
- [6] It can be seen, for example, that the erosion of the relative autonomy of the literary field vis-à-vis the dominant pole of the field of power has the effect of consolidating the position of the values that are most guaranteed in commercial terms (‘best-sellers’) at the expense of subversive agents (Bourdieu, 1992; Sapiro, 2003). ‘The state of the structure of the field of power determines the structure of oppositions of the subfield and thus also the possible alliances that can be formed in the subfield, and also between the members of the subfield and those of their environment’ (Vandenberghe, 1999, p. 53).
- [7] Changes in the dynamics of specific fields are quite visible in the field of education. Like all fields, among other poles and oppositions, it comprises two poles that (cor)respond to fundamental tensions in the field of power. Its autonomous pole values education for its own virtues – it emphasises education as emancipation, personal development, *Bildung*. Here, knowledge and culture are valued for their own sake. The heteronomous pole is preoccupied with the more external effects of education – its efficiency, its utility, its results, its performance, its impact on the economy. Here, knowledge is valued according to its potential utility. One can see that the development of the so-called competence-based curricula was a way to respond to demands made on the heteronomous pole of the field. It was, however, critically reappropriated by some actors and, progressively, two distinct understandings of the notion of competence emerged: performance-based curricula were opposed to wider competence-based curricula (Broadfoot & Pollard, 2006). As Bourdieu (1991a, p. 233) emphasises, the same ‘structure which organizes the field as a whole can be reproduced in each of its points’. In many instances, the PISA results were also received according to two opposing positions, as we will argue here.
- [8] This part of the article draws on several reports from the KNOWandPOL (Knowledge and Policy in Education and Health Sectors) research project, in particular Bajomi et al (2009), Carvalho with Costa (2009), Cattonar et al (2009), Grek et al (2009), Mons and Pons (2009), and Rostás et al (2009).
- [9] Defined by the OECD as an instrument to ‘help governments learn policy-oriented lessons based on results’ (Organisation for Economic Cooperation and Development, 2004, p. 7), PISA is supposed to ‘help countries better understand the processes that determine the quality and fairness of the results of learning in the educational, social and cultural contexts of educational systems’ (Organisation for

Economic Cooperation and Development, n.d., p. 10): 'PISA provides broad evaluation ... giving direction to policy decisions and the allocation of resources' (Organisation for Economic Co-operation and Development, 2001, p. 29).

- [10] The development of the heteronomous pole of the field of knowledge about education also favoured the emergence of new actors whose role is to link knowledge to policy, and hence to navigate not only between pole B and pole C in the field of knowledge, but also between the field of knowledge and the policy field. The literature provides a set of concepts or notions that deal with these new actors: 'brokers', 'knowledge entrepreneurs', 'think tanks', etc. Such concepts are used to label actors who operate and circulate between the field of knowledge and the policy field.

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