

ARTICLES

THINKING WITH PIERRE BOURDIEU
ABOUT THE CATEGORIZATION
OF STUDENTS WITH LEARNING
DIFFICULTIESCHRISTOPHE ROINÉ^IGUSTAVO BARALLOBRES^{II}TRANSLATED BY Sandra Tarsitano^{III}**ABSTRACT**

In this article, we show how Bourdieu's epistemology is relevant to analyze the problem of learning difficulties in mathematics, both from a theoretical and a methodological perspective. We examined two different educational contexts which, however, share particular phenomena related to students with learning difficulties in France and in Quebec. The constitution of a social or school category, as well as the creation of institutional arrangements ensuring continuity, lead to a naturalization of the social and a psychologization of the actors, with individual-based characteristics being attributed as the cause of these actors' "problems".

LEARNING DISABILITIES • EDUCATIONAL PSYCHOLOGY • MEDICALIZATION • DIDACTICS

PENSANDO CON PIERRE BOURDIEU LA
CATEGORIZACIÓN DE LOS ALUMNOS CON DIFICULTADES**RESUMEN**

En este artículo ponemos en evidencia cómo la epistemología de Bourdieu es pertinente para analizar el problema de las dificultades de aprendizaje en matemáticas, tanto desde un punto de vista teórico como metodológico. Analizamos dos contextos educativos diferentes que comparten, sin embargo, ciertos fenómenos relativos a los alumnos con dificultades de aprendizaje, en Francia y en Quebec. La constitución de una categoría social o escolar y la creación de dispositivos institucionales asegurando la perennidad conllevan a una naturalización de lo social y a una psicologización de los actores a los que les atribuye características individuales explicativas a sus "problemas".

DIFICULTADES DE APRENDIZAJE • PSICOLOGÍA DE LA EDUCACIÓN • MEDICALIZACIÓN • DIDÁCTICA

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PENSER LA CATÉGORISATION DES ÉLÈVES AYANT DES DIFFICULTÉS AVEC PIERRE BOURDIEU

RÉSUMÉ

Dans cet article, nous montrons la pertinence de l'épistémologie de Bourdieu pour l'analyse des difficultés d'apprentissage en mathématiques, tant du point de vue théorique que du point de vue méthodologique. Nous avons analysé deux contextes éducatifs différents, celui de la France et celui du Québec, qui, malgré leurs différences, partagent certains aspects liés aux difficultés d'apprentissage des élèves. La constitution d'une catégorie sociale ou scolaire et la création de dispositifs institutionnels garantissant sa permanence impliquent la pérennité impliquent une naturalisation du social ainsi qu'une psychologisation des acteurs auxquels sont attribuées des caractéristiques individuelles explicatives de leurs «problèmes».

**DIFFICULTÉS DE L'APPRENTISSAGE • PSYCHOLOGIE DE L'ÉDUCATION •
MEDICALISATION • DIDACTIQUE**

PENSANDO COM PIERRE BOURDIEU A CATEGORIZAÇÃO DOS ALUNOS COM DIFICULDADES

RESUMO

Neste artigo mostramos como a epistemologia de Bourdieu é pertinente para analisar o problema das dificuldades de aprendizagem em matemática, tanto do ponto de vista teórico como metodológico. Analisamos dois contextos educativos diferentes, mas que compartilham certos fenômenos relativos aos alunos com dificuldades de aprendizagem, na França e no Quebec. A constituição de uma categoria social ou escolar e a criação de dispositivos institucionais que garantam sua permanência implicam uma naturalização do social e uma psicologização dos atores aos quais são atribuídas características individuais explicativas para seus “problemas”.

**DIFICULDADES DE APRENDIZAGEM • PSICOLOGIA DA EDUCAÇÃO •
MEDICALIZAÇÃO • DIDÁTICA**

MANY OF PIERRE BOURDIEU'S STUDIES ARE DEVOTED TO THE EDUCATIONAL SYSTEM (e.g., *Héritiers*, *Réproduction*, *Distinction*, *Noblesse d'État*, *L'Homo academicus* and, to some extent, *La misère du Monde*) and, more generally, to the constitution of different knowledge domains (sciences, arts, etc.).

Bourdieu's sociology remains of interest to educational sciences as his concepts (e.g., the notions of habitus, field or symbolic violence) are still pertinent, from a heuristic perspective, for studying the educational system and its selection, classification, segregation and reproduction mechanisms, which manifest concretely in ad hoc practices (of institutional 'machines', as Foucault (1969) terms them) or in the representation systems typical of the educational field.

Although various studies by Bourdieu refer to that field, the most widespread ones examine the role of the school in the genesis of inequalities by identifying certain phenomena: indifference to differences, the 'gift' ideology, culturally differentiated teaching, etc., all of which are associated with 'reproduction theories'. However, other aspects of Bourdieu's works remain unknown or seldom used even in educational research, particularly his epistemological directions and the methodological implications they entail.

Since the early 1990's, the sociology of education proposes to overcome reproduction theories while advocating a more 'comprehensive' sociology that is interested in the 'local' aspects and 'reflexive' actors. The latter are studied based on the following: their

'roles' (and their distance to these) in the construction of the social (POUPEAU, 2003; ROINÉ, 2009); their relationship with knowledge ('*rapport au savoir*', CHARLOT, 1997), language (BAUTIER, 1995) or their own occupation (LAHIRE, 1993) during their learning; and the 'sense of (school) experience' they attribute to the various situations they go through (DUBET, 1994). It is a psychologically-oriented sociology interested in "studying the social in its individualized form, i.e., how the social reflects on an individual body"¹ (LAHIRE, 2001, p.125). It also proposes "a shift from globally criticizing and denouncing the school, its function and operation towards a concern with improvement" (KHERROUBI; ROCHEX, 2002).²

While a few authors of this new sociology of education consider Bourdieu's work a founding yet, obsolete reference (HEINICH, 2007), his theory remains up to date and relevant, as it can be seen in the *Actes de la Recherche in Social Sciences* (2009, n° 180, 2010, n° 183).

One of the goals of this article is to show how Bourdieu's epistemology is pertinent for analyzing the problem of learning difficulties in mathematics, both from a theoretical and a methodological perspective. First, we introduce the questions related to our object of study; then, we present the theoretical assumptions underpinning them, as well as the methods we used; finally, we present some results which are likely to justify our purposes.

STUDENTS EXPERIENCING SCHOOL FAILURE

Two different educational contexts share certain phenomena regarding students with learning difficulties. In France, the problem of learning difficulties emerged when schooling became compulsory, public, free and secular (Lois Ferry, June 16, 1881 and March 28, 1882) and, mainly, after a process of school democratization which brought a massive number of working-class children into school. School failure is declared for a certain percentage of students, and successive reforms in the last 50 years have tried to eradicate this problem: the 1981 priority education policy built on the idea of positive discrimination to allocate public funds in order to ensure equal opportunities for all students; specialist services were created for students with difficulties (1990) and to include students rejected by schools (1998); also personalized help became available for students with difficulties (2008) (RAVON, 2000).

In Quebec, although some so-called 'exceptional' students already had access to special classes or schools by the 1930's, it was not until the 1960's, when the educational system went through a democratization process, that major advances took place regarding the inclusion of different types of students (GONÇALVES; LESSARD, 2013). As a result, school failure began to represent a problem due to the significant

¹ "Étudier le social individualisé, c'est-à-dire le social réfracté dans un corps individuel".

² "Déplacement d'une posture critique, voire de dénonciation globale de l'institution scolaire, de sa fonction et de ses modes de fonctionnement, à une préoccupation "d'amélioration".

increase in the number of students with difficulties unable to keep up with the educational demands. At the same time, educational institutions adopted specific educational practices to counter this increase. These practices were based on scientific knowledge, particularly in the fields of psychology or medicine. In parallel, a process was initiated to provide special training and work conditions for the people implementing them (GONÇALVES; LESSARD, 2013).

Over the last century, the term used to designate students who experienced school failure varied. In France, the terms ‘students with a delay’ or ‘mentally weak’ (1900-1960), and later, ‘students in school failure’ or ‘maladjusted’ were used. In the 1990’s, a new denomination emerges: ‘students with difficulties’ (in programs and official instructions in 2004, 2007, 2008, and in ministerial reports: Gossot (2003), Suchaut (2003), Hussenet and Santana (2004)). In Quebec, a similar process originates giving rise to two main designations: ‘students with learning or behavioral difficulties’ (grouped by categories: mental deficiency, behavioral difficulties, visual or auditory deficiency, multiple deficiency) (1960-2000) and ‘students at risk of school failure’ (2000). However, though designations may have changed, everything else has remained the same, or, in the words of Watzlawick, Weakland and Fisch (1975), “The more something changes, the more it stays the same”.

Firstly, both in France and Quebec, over 80% of students with difficulties come from working class families, a phenomenon dependent on a dismal macro-social regularity (PHILIP, 2005; BROCCOLICHI; BEN AYED; TRANCART, 2010; LESSARD et al., 1981). Most research conducted in both contexts shows a similar prototype of the student who fails in school: a lower-class student who comes either from a large family or a single-parent household. School inequalities, as demonstrated by different surveys, have not changed substantially in the last 50 years. To the contrary, everything seems to indicate that these inequalities have increased in certain countries (Pisa, 2009, 2013), particularly in France.

On the other hand, the State has made efforts to implement educational policies in line with a particular type of school failure analysis that mainly supports the idea of a cause exogenous to the school (ROINÉ, 2009). Thus, the state reinforces an individualistic, psychological representation: if a student has difficulties in school, the causes are to be sought in the individuals themselves (students or parents). School difficulties are rarely explained as the result of a cultural production, within which “agreements between people, ideas, communities, restrictions, and interpretations...” acquire their meaning (MACDERMOTT; GOLDMAN; VARENNE, 2006). Not only does the state explain school failure in this way by relying on multiple psychological or sociological investigations that give it a certain ‘scientific’ legitimacy,

but it also institutes ‘devices, procedures, techniques, machines’ (FOUCAULT, 1969) in order to sustain the credibility of that hypothesis.

Explaining students’ difficulties by exogenous causes relies mostly on psychological research: psychometric or differential at first, Piagetian or clinical later, cognitive and neuroscientific more recently. Since Binet’s work and the creation of the concept of intellectual ‘capacity’, a child who performs poorly at school is considered an individual with intellectual, aptitude or attitude problems, as the case may be. Such ‘medicalization of school failure’ dates back to over a century ago in France (PINELL, ZAFIROPOULOS, 1978). In Quebec, it begins in the 1960’s, when the problem of students with difficulties becomes of public interest. During this period, a professional activity designed to work with these students, and inspired by medicine, psychology and psychiatry, begins to take shape (DUVAL; LESSARD; TARDIF, 1997). The way of approaching learning difficulties is marked from the very beginning by a psychomedical tendency that has successively combined with the concepts of ‘intellectual deficiency’, ‘behavioural disorders’, ‘developmental difficulties’, ‘relational disorders’ and, more recently, ‘metacognition problems’ or ‘cognitive transfer problems’, ‘dyslexia’ or ‘dyscalculia’. As though all these had not been enough, neuroeducation is now going into the brain’s deepest parts to introduce the concepts of ‘inhibition’ and ‘self-regulation’. The medicalization of school failure is present in the structures of Quebec to such an extent that a code is attributed to each student’s deficiency or disability. Through these codes, schools have access to public funding (BERGERON, 2017). The inflation of diagnosis promoted by the state is appalling: as parents will seek a diagnosis so their children can have access to public free educational aid.

From a sociological point of view, the success of the term ‘sociocultural disability’, used in the United States in the 1960s, ‘a kind of official ideology of educational institutions’ (TERRAIL, 2003), has been and still is a testimony (see SICOT, 2005) of how this medicalization of school failure has been imposed in the educational field. It postulates that:

[...] children of popular classes lack the cultural means and the suitable living conditions that would allow them to succeed in school, and that should hinder their psychological development, which, in turn, should manifest in linguistic and intellectual delays.³ (SICOT, 2005, p. 276)

A psychological distinction is made between children from popular families and the others. Therefore, to a large extent, it is the specifics of each individual that would explain school difficulties. In addition, the state has asked teachers (and academics) to create a ‘pedagogy of success’

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“Les enfants des classes populaires manquent des moyens culturels, des conditions de vie correctes qui leur permettraient de réussir à l’école, ce qui les handicaperait dans leur développement psychologique par des retards linguistiques et intellectuels”.

which privileges forms of intervention essentially based on students' individual characteristics in order to act directly on them (fixing what does not work). In France, in the 1970's (KAHN, 2008), a 'differentiated' pedagogy was promoted focusing on the 'cognitive styles' of students with learning difficulties; later on, an 'individualized' pedagogy was endorsed (since the 1990's, FEYFANT, 2016) which aimed was to 'adapt' teaching to each individual by considering each student's difficulties.

The logic of segregation (putting students in special classes), which has prevailed until the late 1980s, gives way to what Roiné (2009) calls a logic of the 'isolation' (separating students, but within the same class).

A similar movement occurs in Quebec: pedagogical differentiation, individualized teaching and explicit teaching, though with some variations, have kept the central idea of adapting teaching to each student's individual needs. Consequently, the education policy for students with learning difficulties in both cultural contexts has consisted inseparating them from the general class, thereby making them live a different school reality: differentiated paths characterized by reductionist didactic propositions (i.e., poorer contents) and stigmatizing interactions (ROINÉ, 2009, 2010).

In this article, we are interested in students attending special classes both in France and Quebec. Who are the students classified as 'with difficulties' and therefore sent to these classes? Are their characteristics distinctive enough to differentiate them from the rest of the students and be the cause that would explain their school failure? What kind of teaching is done in these special classes?

THEORETICAL FRAMEWORK A NON-SUBSTANTIALIST POSTURE

In an essentialist analysis, it suffices to apprehend "substantial properties, inscribed once for all in a biological or cultural essence,"⁴ (BOURDIEU, 1994) in order to show not only the explanatory causes of a given social problem, but also the margins of action necessary for its 'eradication'. Thus, with regard to students with difficulties, many studies try to identify what specific characteristics these children have that could supposedly explain their school difficulties (BARALLOBRES, 2016).

The review we conducted in the field of mathematics didactics describes a student prototype characterized by slow learning, lack of knowledge, disability and even unwillingness. A non-exhaustive list of cases: (the students) "don't want to learn"; "won't commit to the task" and "are quickly put off"; "they are not autonomous"; "they seek attention"; "they are unable to make interpretative inferences"; "they have a delay in the structuring of their thoughts"; "they have 'language difficulties'" or their "cognitive processes are disturbed" (ROINÉ, 2011).

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In original: "Telles ou telles propriétés substantielles, inscrites une fois pour toutes dans une sorte d'essence biologique ou - ce qui ne vaut pas mieux - culturelle".

Therefore, the characterization is based on internal causes, particularly cognitive or conative ones. In other words, the difficulties observed (the existence of which we will not deny) are always interpreted (the linguistic formulations so denounce) in terms of a ‘lack’ or a ‘deficiency’ on the students’ side. However, the conditions in which these difficulties manifest are usually ignored.

A simple exercise of paradigmatic substitution would suffice to demonstrate the unknowingly, unconsciously and unintended discriminatory deviations that these studies sadly transmit. If, as Bourdieu affirms, “All racism is an essentialism” (BOURDIEU, 1980b), then the reciprocal seems plausible: all essentialism contains in itself some discriminatory potential (even if, as previously stated, intended or unconscious) as there is a risk of attributing to nature what comes from a social construction in a differentiated and differentiating space. If we replace, for example, in each of the expressions mentioned recently, ‘students with difficulties’ by ‘Jews’, ‘Muslims’ or ‘Christians’, ‘homosexuals’ or ‘gypsies’ (ad libitum), the result would be frightening. What would be considered violent (and rightly so) for employing criteria from an ethnic or religious classification, goes unnoticed when these criteria fit school and cognitive classifications. The euphemisms hidden in the set of these studies should be questioned. If the ‘gift’ ideology that Bourdieu denounced in his time (BOURDIEU; PASSERON, 1964) is still alive in education, would it not be owing to this unquestioned essentialism that abounds in research on school difficulties and guides representations and decision-making in this domain?

Are we saying it is necessary to avoid any characterization or generalization?

Since sociology deals with populations by creating ad hoc categories, should we leave aside all studies of this type about students with difficulties?

Then how could we refer to these students?

Sociologism is not sociology, and it seems to us that Bourdieu’s epistemology, particularly his dispositional theory of action, is useful to develop a thought that uses categories without falling in the trap of a naïve substantialism that attributes to a class of individuals certain distinctive characteristics often stated in terms of psychological attributes. Indeed, according to Bourdieu, the properties of the individuals who belong to a constituted group are inherent in the relative position these individuals occupy in the differentiated and differentiating social space: “The space of social positions is retranslated into a space of position-takings through the mediation of the space of dispositions (or habitus)” (BOURDIEU, 1994).⁵

However, the properties only exist virtually since the classes they supposedly qualify are the researchers’ creations, a theoretical framing

⁵ “L’espace des positions sociales se retraduit dans un espace des prises de position par l’intermédiaire de l’espace des dispositions”.

often achieved by means of statistics in order to reveal the principles of opposition and distinction that the social space organizes and generates. The ‘scholastic error’ (BOURDIEU, 1997) would consist, therefore, of “a ‘death-defying leap’ from existence in theory to existence in practice” (BOURDIEU, 1994).⁶ When it comes to specifying the attributes of a class of individuals, we are primarily in the presence of a particular act of scientific activity. And that act is, in fact, meant to describe the organization of the social space, rather than to qualify ad hominem the real individuals.

However, these subjects, situated in a certain place in social space, are not outside the ‘*machines*’ and discursive practices (as meant by Foucault, 1969) that keep them in the place where they were identified. Indeed, “Social space tends to retranslate itself, in a more or less distorted manner into physical space in the form of a certain distributional arrangement of agents and properties”⁷ (BOURDIEU, 1997).⁸ The organization of social space and the differentiating mechanisms used therein are inscribed in the bodies in the form of provisions which tend to guide the schemes of perception, appreciation and action, i.e., in the form of habitus (BOURDIEU, 1980a).⁹ What the researcher builds are “classes of habitus, which can be statistically characterized”, (BOURDIEU, 1980a) Therefore, to address the problem of students with difficulties, it is necessary to consider the cultural constructions that make this category of students relevant as an object of analysis, without taking for granted the definitions, precepts and common places that supposedly characterize them.

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“Opérer un saut mortel de l’existence en théorie à l’existence en pratique”.

7

“L’espace social tend à se retraduire, de manière plus ou moins déformée dans l’espace physique, sous la forme d’un certain arrangement des agents et des propriétés”.

8

As Bourdieu states: “the place can be defined as the space where a thing or an agent acquires existence” (1997, p 158).

(In original: “Le lieu peut être défini comme l’endroit où une chose ou un agent a lieu).

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From our point of view, the individual cannot be reduced to this mere incorporation of social classifications. The symbolic world guiding the schemes of perception and meaning certainly comes from an intersubjectivity that cannot be reduced to a simple space of social domination and conflicts. The cycles of signification the individual has in a ‘given’ space refer to a significant unconscious order, the discourse of the ‘other’; we will hypothesize, following Lacan (1966), that these cycles are also woven into a desire game inscribed in and by generations in the individual’s particular history.

UNDERSTANDING THE REASONS FOR ACTING

Practice has a logic, which is not that of the logician. This has to be acknowledged in order to avoid asking of it more logic than it can give, thereby condemning oneself either to wring incoherencies out of it or to thrust a forced coherence upon it. (BOURDIEU, 1994, p. 157)

As we have pointed out in the introduction, the state has encouraged (and still does) certain forms of pedagogical actions for students with difficulties that are based on their psychological or cognitive specifics. In turn, with regard to teacher training, prescriptions both by ministerial offices and certain educational researches have been transmitted until today. They urge future teachers to adapt their intervention to the students’ needs and characteristics (BERGERON, 2017). This ‘logic of adaptation’ (GIROUX, 2007) acquires two ad hoc forms: the pedagogical differentiation and, more recently, the individualization of teaching (in official discourses, the latter takes

precedence over the former (HOUSSAYE, 2003)). However, at least in the French context, these prescriptions have reached no status so far but that of slogans supported by a psychologizing ‘jargon’ supposedly indicating how teachers should organize their teaching (working on mental representations, practicing a pedagogy of metacognition, acting on the proximal development zone...). Indeed, the reports published by the Inspectorate General for National Education in France show that the implementation of these pedagogical prescriptions continues to be but ‘false institutional appearances’ (GLASMAN, 2003), ‘empty formats’ that teachers randomly fill with various practices such as repeating the same thing, explaining again, lowering standards, simplifying, changing the amount of work required, proposing specific manipulations (GOSSOT, 2003, DO, 2007).

The Ministry of Education of Quebec, in turn, has developed guides and documents for teachers (QUÉBEC, 2014) in which the pedagogical differentiation is presented in a generic way, referring only on occasions to the specifics of the different school disciplines: dividing complex tasks into simpler ones, promoting the manipulation of concrete objects in order to help students understand abstract objects or notions, proposing visual support, etc. (BERGERON, 2017). Despite a certain discursive consensus by government agencies (Ministry of Education, curriculum documents) and even researchers (KOZOCHKINA, 2009) on the supposed benefits of pedagogical differentiation, the real scenario in Quebec is the same as in France: teachers do not adopt these proposals explicitly and systematically (MODOVEANU, 2016).

Teachers could be accused of not being receptive enough to the prescriptions proposed to them, of failing to understand what is expected of them, of making no efforts to change their practices... These reproaches, though not necessarily explicit, are nevertheless part of the beliefs found in various areas of teacher education and research. In our view, these recriminations stem from an epistemological error: the mentalist specialization that teachers supposedly should have presupposes a strictly logical rationality of the teaching practice that does not formally correspond to the act of teaching. These assumptions supporting the idea that teachers can consider students’ mental aspects and guide their actions based on their findings come from a ‘scholastic epistemocentrism’ (BOURDIEU, 1997). Indeed, inscribing in the object that is observed the observer’s intellectual relationship with it –a relationship pertaining to the position of observer– constitutes the paragon of scholastic error, which forgets the conditions of ‘inclusion in the world’, the *implicatio* and implicit terms they entail since it comes from a ‘mutilation of the practical logics’. As stated by Bachelard (1993, p. 139): “The world in which we think is not the world in which we live.”¹⁰

Teachers are not free actors, nor are they independent of the conditions in which their actions develop. Their experience and mastery of their work come more from a practical sense (BOURDIEU, 1980a) guided by ‘ways of doing’ (DE CERTEAU, 1990) rather than by a strategist rationality that would strictly apply rules and principles of action learned in training.¹¹

Teachers who teach students with learning difficulties are thus confronted with a paradoxical situation because, firstly, the prescriptions they receive (mentalist) fail to give them any means of action and, secondly, they cannot act according to the rules of a reason of action that fails to consider its implication in the practical world. The error of assuming agents to have a ‘wise’ rationality free of practical urgencies is of real concern, since it is progressively introduced into the very place that founds and transmits the scholastic disposition pertaining to the scientific fields, and it relies on a certain ‘power of science’ whose ‘symbolic violence’ on teachers is anything but negligible.

The anthropological-didactic perspective developed by Sarrazy (2002, 2006) tries to avoid this trap by taking into account the backgrounds (‘arrière-plans’, SEARLE, 1985) that form, inform and organize teaching practices. This model is situated at the intercept of two theoretical fields: the didactics field, which studies teaching phenomena by considering the roles played by the conceptual structure of knowledge and the organization of study mechanisms on how school knowledge emerges and is appropriated by students (BROUSSEAU, 1998); and the anthropological field, which deals with the cultural dimension in which the practical logics of teachers and students are situated and considers the backgrounds that – like habitus – inscribe these logics in a universe of capacities and procedures.

Indeed, when teachers teach, act and interact according to certain reasons that are both ethical and functional – most of which being unnoticed or unconscious in the course of their action – such as: moving the didactic time forward (CHOPIN, 2011), preventing students with difficulties from getting discouraged (ROINÉ, 2009), provoking interactions, raising awareness, working on mistakes (ROINÉ, 2009), allowing the participation of all students, motivating them... Teaching practice must be understood as the effect of a double coercion: both didactic and non-didactic. Didactic: the teacher acts according to the knowledge to be taught, the didactic conditions characterizing the teaching situation proposed, the management of didactic time, and the obstacles students may face during knowledge acquisition. Non-didactic: teachers also make decisions of pedagogical order based on their political references, social representations, perceptions concerning their students, ideas related to school failure... Obviously, the interactions between the teacher and his/her students in the classroom

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Though one can possibly imagine that these rules can influence practices in situation, it is not possible to postulate that they constitute, strict sensu, their praxeological principle. As Bourdieu says, “Most human actions have as a basis something quite different from intention” (1994, p.182). [“La plupart des actions humaines ont pour principe tout à fait autre chose que l’intention”.]

are contextualized by the actions of the latter and their reactions to the former's actions, but they take shape from this anthropological-didactic background. Embarked (to borrow Pascal's term) in contingency – an essential component of the teaching situation they put into practice – and not without representations, judgments, beliefs and ideas of their professional and social context, teachers are not rational actors or strategists, as certain current prescriptions assume.

The study of this double dimension, i.e., didactic and non-didactic, has guided our efforts to analyze and interpret the practices used in classes where there are students with difficulties, not so much to identify rules of action that can address the problem of school failure, but, rather, to understand the reasons that guide teachers' actions in this particular context.

METHODOLOGICAL ASPECTS

Ordinary language passes unnoticed, because it is so ordinary, but it carries in its vocabulary and syntax a petrified philosophy of the social, always ready to spring out of the common words or complex expressions bade up of common words, that the sociologist inevitably uses.¹² (BOURDIEU; CHAMBOREDON; PASSERON, 1983, p. 36-37)

Firstly, we will try to understand the language games (as meant by Wittgenstein, 1965) that delimit the potential forms of life in order to denaturalize that which ordinary language 'allows us to see' as a reified category. How has the profile of the student with difficulties been constructed? Has it always existed? From the viewpoint of the historical construction of special education, is it possible to identify relevant periods, continuities and ruptures?

Following Bourdieu (2012), we propose the following hypothesis: what is hidden in ordinary language (in a kind of social unconscious) emerges in the study of the genesis of a field (in this case, the area of special education) as the struggles and essential issues become more explicit.

Secondly, although the genesis of the domain of special education allows us to identify the essential elements in the development of this area, it is also necessary to understand the 'symbolic power' that is "a power of constituting the given through utterances, of making people see and believe, of confirming or transforming the vision of the world and, thereby, action on the world, and thus, the world itself..."¹³ (BOURDIEU, 1980b, p. 210). How are students with difficulties defined? What is said about them? What discourses do institutions direct to

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"Le langage ordinaire qui, parce qu'ordinaire, passe inaperçu, enferme, dans son vocabulaire et sa syntaxe, toute une philosophie pétrifiée du social toujours prête à resurgir, des mots communs ou des expressions complexes construites avec des mots communs que le sociologue utilise inévitablement".

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"Faire voir et faire croire, [à] confirmer ou [à] transformer la vision du monde, et par là, l'action sur le monde, donc le monde..."

teachers concerning their work against school? What intervention resources are recommended?

We have analyzed the content of various discourses that form the *noosphère*¹⁴ of the field of special education: the institutional discourse (by analyzing documents issued by the ministries of education of France and Quebec), the sociological discourse (by studying the summaries published in the *Revista Francesa de Pedagogía* about the sociology of education and recent sociological research related to school failure), the pedagogical discourse (by studying pedagogy texts that have had some influence on the educational system in recent years).¹⁵ We question whether all these discourses can form an ideological compilation that is homogeneous and coherent enough to guide the representations of the various actors in special education, and whether they can also constitute a network of meanings underpinning the background (*arrière-plan*) of the discourses and practices of the teachers working in this field.

In the third part of our methodology, we built on studies conducted by Roiné (2009) on a specific population of students identified as with learning difficulties, who attend an adapted school environment in France called Segpa and they are defined as ‘students with serious and persistent school difficulties’. Students attend this particular school (circulars of August 29, 2006 and April 24, 2009, circulars No. 2015¹⁷⁶ of October 28, 2015) for four years and they focus on two main goals: general education (providing students with a chance of pursuing pre-higher education and higher education) and vocational education (for students who will follow a trade, e.g., as an electrician, carpenter, cook, etc.). In these classes, the teaching of general subjects is adapted from secondary school programs. Making this ‘adaptation’ is the responsibility of the teachers themselves. Thus, the curricular design prescribed is not defined in advance, as with undifferentiated regular secondary education programs, but it can vary according to what each teacher considers to be “his or her students’ difficulties and the ‘specific training project’ prepared by the educational team” (FRANCE, 2009). However, at the end of the school year, these students take the same exams as those who attend regular classes.

In order to understand what distinguishes these special-class students from those at the same school level attending regular secondary education, Roiné (2009) analyzes French national assessments in a specific region (Aquitaine) and compares the relative data from special-class students with those from regular secondary education classes in 100 mathematics items and 100 French items. This comparison considers the social backgrounds of both Segpa students and regular-class students, as well as their geographical origin (i.e.: urban or rural / rich or poor; geographical areas).

14 The *noosphère* denotes the world of ideas: what is offered, what is said, what is manifested, developed and conceptualized in a theoretical field given on the subject of a particular environment (SARRAZY, 2002).

15 An analysis of the union discourse is still pending.

A priori, according to noosphère discourses, special education students would have cognitive or behavioural specificities that would distinguish them from the other students. These specificities would condition the categorization carried out rejecting all spontaneous substantialism. Our purpose is to validate or invalidate what Roiné (2010) has called ‘the hypothesis of specificities’ of Segpa students.

In the case of Quebec, data from the assessments conducted by the Ministry of Education does not allow access in a differentiated way to the results obtained by special-class students (in regular secondary schools) nor to the outcomes of the rest of the students (ministerial examination results, 2012, 2013, 2014, 2015: <http://www.education.gouv.qc.ca/etablissements-scolaires-publics-et-privés/examens-et-epreuves/traitement-des-results/>). The information is available globally, by school and by region.

Fourthly, we analyzed Segpa teachers’ representations based on a questionnaire presented by Roiné to a group of teachers in the Aquitaine region, in France, and on interviews he conducted with eight of them. The questionnaire was sent to 220 teachers and distributed across the 64 Segpa schools in that French region. Fifty-seven percent of the teachers (i.e., 126 teachers) completed the questionnaire. About 50% were female, and the age distribution was: a twenty percent between 20 & 30, a thirty percent between 30 & 40, a twenty five percent between 40 & 50 and a twenty five per cent between 50 & 65.

As regards Quebec, we studied teachers’ representations on the educational practices used for students with difficulties in mathematics, based on the analysis of various papers (MARTIN; MARY, 2010; MARY; SQUALLI; DEBLOIS, 2014; HOULE, 2016). In this case, the studies were qualitative and involved small groups of teachers who were observed during their classes.

What ideas from institutional or scientific discourses do teachers seem to recall? What concepts or notions could guide or change their practices? What relationships do they establish between what emerges from the order of discourse and ideas? And what comes from their daily pedagogical actions?

Finally, Roiné (2009) and Barallobres (in press) analyzed some mathematics classes in the context of special education (secondary schools). Here we decided to focus on the teaching of mathematics because this subject, a formal-natured and largely ‘algorithmic’ one, seems a priori to be less subject to different social practices, as it could be the case with languages (reading, writing or learning a foreign language). The frame of reference for our study is the theory of didactical situations (BROUSSEAU, 1998). This theory analyses the conditions for constituting school knowledge of mathematics (a kind of artificial genesis), assuming that it is not constructed spontaneously,

but via two fundamental processes: on the one hand, by analyzing the objects of knowledge and their properties (epistemological, ergonomic analysis, etc.), which are necessary to logical constructions and the invention of ‘situations’; and, on the other, by empirically confronting the adaptation of these models and their characteristics to contingency.

MAIN RESULTS

The results of our study, as well as those of the authors above mentioned, suggest that the problem of students with difficulties is less the result of some naturalness inherent in the attributes of this population than it is the product of cultural construction. Not only is there a discourse of a relatively homogenous legitimation which allows students to be divided and classified according to their supposed individual capacities, but, even worse, there is a set of procedures for guiding teaching practices which naturalizes the product of social classifications by organizing the distribution of roles according to that discourse. On the other hand, both teachers and students internalize these discursive practices which eventually lead to maintaining a certain state that has been created. The more a student is labeled as having learning difficulties, the more she or he is likely to have them, because, on the one hand, the teaching given to them differs significantly from that of regular classes and, on the other hand, the interventions aimed to help students with difficulties are focused on cognitive strategies, while ignoring the didactic conditions that allow school knowledge acquisition, which obviously has an impact on the nature of their learning.

According to official guidelines, the students with difficulties attending the classes described above are the ones with a school delay of 1 or 2 years if compared to students without difficulties, and who present no intellectual deficiency or disability of any kind. However, our analyzes of the documents studied (sociological, didactical and pedagogical ones), both in France and in Quebec, allow us to affirm that these students are attributed a ‘pseudo-disability’ whose more or less elaborate ‘clinical presentation’ relies on descriptions that emphasize a lack of aptitudes, behavioral disorders, affective deficiencies or a dysfunction in some of the cognitive functions.

The amalgam – a historically situated one¹⁶ – between ‘disabled students’ and ‘students with learning difficulties’ contributes to a certain ‘pathologization’ of students with difficulties. At the same time, a relatively homogeneous discourse (from official sources, research and others) forms a conceptual framework of school failure that tends to consider learning difficulties as problems inherent to the individuals, it is their abilities or disabilities the source of their difficulties, pushing aside any collective or institutional responsibility, which eventually

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Historically, special education combines special education and integration/inclusion in the same school.

leads to a kind of denial of the school form. Thus, we have gone from a logic of ‘indifference towards differences’ (the traditional class) to a logic of ‘overrating differences’ (individual help for everyone). From our point of view, that is a mentalist ideology which characterizes contemporary discourses, tending to abstract the students from the situational and cultural contingencies they may experience (experiences that shape them), and which considers learning as being independent of the school conditions that allow its manifestation. This ideology advocates a teaching that is primarily – or solely – based on prior knowledge of the mental operations involved in learning, founded on forms of regulation directly guided by these operations. Teaching focuses on each individual (or, rather, ‘on the brain of each individual’) and it must be adapted to students’ cognitive difficulties. In this context, learning is the consequence of an individual appropriation, rather than of a collective acculturation in which the epistemology of a specific knowledge would play a fundamental role. Certain studies on cognitive psychology, as well as other more recent ones in neurosciences, constitute the ‘armed wing’ of this ideology.

If an ideology like this sustainable, one should expect to find, according to the ‘hypothesis of ‘specificities’, were differentiated and differentiating school competences in these students compared with those in regular classes. However, Roiné’s analysis of the French national assessments does not confirm that hypothesis. Many students in the special education sector have similar (if somewhat poorer) results to those of regular-class students. That is, other variables (rather than just academic achievement) are taken into account when deciding which students to send to special classes: such as social status and geographic location. Therefore, the decision to send students to special classes in the Aquitaine region seems to depend more on non-school variables than on school outcomes *stricto sensu* (ROINÉ, 2011). Although these findings are not novel, they can make us think about the importance of considering the way these students are referred to special classes (Segpa) in a *continuum* with mechanisms that precede school segregation. On the other hand, comparing Segpa students’ outcomes with those of regular students in a specific-knowledge domain has allowed us to challenge certain assumptions or prejudices that have never been questioned before. In fact, our analysis shows that special-class students are no different, from a didactic point of view, to regular class ones: both groups of students give wrong answers or make mistakes in the *same items*.¹⁷ If the students fail a question, it is not necessarily due to them not understanding the statements, or due to a deficiency in how they treat information or an attention deficit... but simply because these exercises were more difficult than the others. The nature of the exercise, i.e. its

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The correlation coefficient between Segpa and regular-class students’ outcomes, using Bravais-Pearson test, is over 0.80 (0.81 for the 100 mathematics items and 0.83 for the French items).

didactic aspects, is determinant in explaining the success or failure in solving an exercise.

The differences between Segpa students and the others are of degree, not of nature (the former make the same mistakes, only more frequently, but the types of mistake are the same for both groups of students). Consequently, the idea of students with difficulties as a generic category that justifies psycho-cognitive descriptions, and for which didactic and pedagogical ad hoc regulations are proposed, seems questionable to us. To consider these students as 'separate' cases because they would be different in terms of their specific characteristics which would separate or actually exclude them from the field of interpretation of the mechanisms of reproduction seems completely random to us. Naturalizing students with difficulties in the educational community seems extremely disturbing, particularly since this naturalization seems to acquire legitimacy through numerous research papers that fail to question the intrinsic form of construction of this category of students.

Teaching practices, both in France and Quebec (BARALLOBRES, 2016; BERGERON, 2017; MARTIN; MARY, 2010), are immersed in this culture of specificities. The conviction of a natural specificity about difficulties leads teachers to use different didactic propositions than the ones they would normally use with regular classes: convinced that students' difficulties are due to some cognitive deficit or poor relationship with knowledge, special education teachers advocate particular mentalist-oriented actions. Frequently, special aids are provided in advance to 'train' the students' cognitive or meta-cognitive skills, to enhance their mental representations or to explain procedures to them. Usually, the aim of these interventions is to act directly on students' cognition (based on the assumption that such cognitive skills are necessary conditions for learning). The force used to impose the mentalist ideology we have briefly described marks the teaching practices. Paradoxically, our analysis on these classes shows that the aids (teacher interventions) emerge as a central element in the didactic relationship. Indeed, our study shows that these cognitive strategy-centered aids can change students' mathematical searching, distorting mathematics to such an extent that it disappears. The 'aid' becomes the object of teaching, and students' initial search is changed to become the execution or reproduction of a procedure all they are going to learn. Thus, students' possibilities of deciding on, justifying and identifying knowledge are affected to such an extent that they end up responding to the task according to indications external to the situation. Although the teacher proposes a particular aid with the purpose of facilitating students' learning conditions (from the teacher's perspective, it will 'enrich' the didactic relationship), its effects are contrary to those intended: from the students' perspective, this enrichment acts as a

complication that disrupts learning conditions. Roiné (2012) has called this the “pharmakéia effect”, after the classical Greek word for both ‘remedy’ and ‘poison’. Pharmakéia is a substance that, depending on the case, the circumstances and the dose, is likely to produce either a positive (remedy) or a negative (poison) effect. In most of our analyzes of the classes observed, the aid, strategy or procedure proposed, supposedly a ‘remedy’ to help students with difficulties, turned out to be a potential ‘poison’ as the didactic conditions of its use are completely ignored. This ignorance seems to reveal a certain ‘didactic blindness’ (ROINÉ, 2011), i.e., teachers’ difficulty to consider the parameters (didactical and situational) on which they could act to help students efficiently. In the cases studied, the aid is considered an object in itself, without being didactically questioned, thus complicating students’ work to such an extent as to fuddle them. In the classes observed in Quebec, a paradigmatic case will illustrate our point. A problem-solving guide is proposed to the students (who are required to complete it as a first task); it consists of seven stages: reading the problem several times, reformulating it, visualizing it (drawing a picture), proposing a hypothesis, estimating, calculating and verifying. A student raises his hand and asks: “Sir, when we’ve done all this, do we have to solve the problem?” (BARALLOBRES, 2016)

At the same time, the theory of didactic situations allows showing the impact that these ‘generic’ help interventions can have on the very nature of the mathematical knowledge to be taught. Several investigations in geometry didactics (BERTHELOT; SALIN, 1994, HOUEMENT; KUZNIAK, 1999; LABORDE, 1989) show that understanding the concept of geometric shapes requires questioning the idea that the representation of a geometric shape allows ‘visualizing’ all the properties that characterize this shape, and that certain properties of its ‘paper representation’ should not be considered (its position, color...). Therefore, it is of essence that students understand that the graphic representation (the drawing) does not allow determining the properties of the geometric shape in question, but that they have to be controlled by definitions, by a theoretical framework. Thus, the ‘visual’ aid (one of the 7 stages above) can become an obstacle for building certain geometric concepts – for example, if the role of representations is not taken into account (i.e., as an intermediate object between concrete and theoretical objects) in the process of building the theoretical notion of geometric shapes. It is worth stressing that teachers cannot be held responsible for this situation. Indeed, they cannot abstract themselves from the culture that inscribes their practical logic into the networks of signification that schools, the noosphere and, more prosaically, common sense impose on their reasons to act (BOURDIEU, 1994).

CONSIDERATIONS

What the social world has done, it can, armed with this knowledge.¹⁸
(BOURDIEU, 1993, p. 944)

Data collected in two different cultural contexts (France and Quebec), specifically on the field of special education, show that rejecting cultural and social determinations leads to the constitution of a social or school category and to the creation of institutional ‘practices’ that ensure its permanence. Moreover, this rejection of social and cultural determinations guides numerous studies towards a naturalization of the social and a psychologization of the actors, whose ‘problems’ it attributes to individually-based characteristics. That naturalization of the social cannot be easily put in evidence: in its language, common sense is a powerful instrument for crystalizing the visible categories as they are institutionally perpetuated. Discourses referring to students with difficulties often forget that this category is the result of a double process: on the one hand, the creation of institutional practices for establishing differences between people, generating ad hoc structures or procedures (special classes, methods for identifying and advising students, special training for teachers); and, on the other hand, a legitimation discourse which organizes knowledge of the social world, naturalizes the social classifications it creates, and manages the distribution of the roles it assigns (the creation of groups of experts; studies on students with difficulties—many of which are directly funded by the ministry of education, who obviously advises on what can or cannot be investigated; and public legitimation discourses on the practices and procedures designed to fight school failure).

¹⁸
« Ce que le monde social a fait, le monde social peut, armé de ce savoir, le défaire. »

¹⁹
We refer to the studies of Mac and Varenne (1995, p. 339): “For the past thirty years, the anthropology of education has been dominated by the question of how to talk with rigor and respect about children, particularly minority children, who fail in school. There must be something wrong with their life, goes the mainstream story—how else could we talk about their not having learned to read or gained the basic knowledge of elementary mathematics? Certainly, there must be something wrong with their lives, but is this saying anything useful? What if the very act of saying that there is something wrong with their lives, if the very act of putting it into words (a term so improperly contextualized) makes their situation worse?”

From an etymological perspective, a category is a public, accusatory term (*katêgorein*, from *kata*: counter, and *agoreuein*: to speak to an assembly, resulting in: accusation, guilt); and, in Aristotelian logic, it is a quality attributed to an object (current meaning). Both meanings are closely related: attributing to ‘collective actors’ qualities that discursive practices keep (re)creating inevitably leads to designating “what is wrong with them”.¹⁹

In the case of students with difficulties, this course of action has consequences on the reality they experience at school as the special ‘treatment’ they receive gradually excludes them from the *general guidelines* of school contents and regular curriculum frameworks, as well as from the common culture of the rest of the students in secondary education. Research works conducted in France and Quebec (SARRAZY, 2002; GIROUX, 2007; ROINÉ, 2009, 2011; CHOPIN, 2011; HOULE, 2016; BERGERON, 2017; etc.) show certain peculiarities of special classes from didactic and non-didactic perspectives if compared to regular classes. A

clear example is the impoverishment of knowledge to be transmitted: in mathematics, for example, that occurs via the algorithmization of knowledge. The effect is cumulative and we would venture to say that the more they are declared ‘students with difficulties’, the greater their risk of becoming so.

Common sense is full of such ‘accusations’, aimed at ‘collective actors’ and crystallized in the use of unquestioned vocabulary. As Bourdieu writes:

The power of words and commands, the power of words to give orders and bring order, lies in belief in the legitimacy of the words and of the person who utters them, a belief which words themselves cannot produce.²⁰ (2001, p. 210)

One of the ambitions of educational research studies would be precisely to reveal what is hidden in the use of terms. In this article, we have tried to show how Pierre Bourdieu’s epistemology can help us achieve that goal.

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“Ce qui fait le pouvoir des mots et des mots d’ordre, pouvoir de maintenir l’ordre ou de le subvertir, c’est la croyance dans la légitimité des mots et de celui qui les prononce, croyance qu’il n’appartient pas aux mots de produire”.

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