

**BOURDIEU AND STATISTICS**

***BOURDIEU E A ESTATÍSTICA***

***BOURDIEU Y LAS ESTADÍSTICAS***

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**ABSTRACT:** The mathematical aspect of Bourdieu's empirical work is essential to his theoretical and methodological model. This article revisits the author's statistical analysis and how it is disseminated in Brazil. The geometric model of data analysis uses correspondence analysis (CA) and multiple correspondence analysis (MCA) to combine objectification through quantitative data in a synthesis of statistical information in line with the author's conception of the social world. The final objective is a dialogue between quantitative and qualitative methodologies, just as what was sought by the author.

**KEYWORDS:** Multiple correspondence analysis (MCA). Pierre Bourdieu. Quantitative methods in social sciences.

**RESUMO:** *A face quantitativa dos trabalhos empíricos de Bourdieu são um aspecto essencial de sua obra, parte intrínseca do desenvolvimento de seu modelo teórico-metodológico. O presente artigo revisita as análises estatísticas presentes nos trabalhos de Pierre Bourdieu e apresenta como elas se disseminam no Brasil. Verifica-se como as Análises de Correspondência (AC) e Análise de Correspondência Múltipla (ACM) são ferramentas de análises de dados capazes de expressar a visão do autor sobre a realidade social. Apresenta-se o compromisso do autor com a quantificação e a formalização matemática e como a modelagem geométrica de dados “a la Bourdieu” é utilizada no Brasil.*

**PALAVRAS-CHAVE:** *Análise de correspondência múltipla (ACM). Pierre Bourdieu. Métodos quantitativos em ciências sociais.*

**RESUMEN:** *El aspecto matemático del trabajo empírico de Bourdieu es esencial para su modelo teórico y metodológico. Este artículo revisa el análisis estadístico del autor y cómo se difunde en Brasil. El modelo geométrico de análisis de datos utiliza el análisis de correspondencias (CA) y el análisis de correspondencias múltiples (ACM) para combinar la objetivación mediante datos cuantitativos en una síntesis de información estadística acorde con su concepción del mundo social. El objetivo final es un diálogo entre metodologías cuantitativas y cualitativas, tal como lo buscaba el autor.*

**PALABRAS CLAVE:** *Análisis de correspondencias múltiples (ACM). Pierre Bourdieu. Métodos cuantitativos en ciencias sociales.*

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## Introduction

There is an essential aspect in Pierre Bourdieu's work that is little discussed in Brazil<sup>2</sup>: the quantitative aspect present in his empirical works, and how they are essential for the formulation of his theoretical-methodological model. In “*How Bourdieu Quantified Bourdieu - The geometric modeling of data*”, Frédéric Lebaron (2009) states that the program of quantification and formalization in Pierre Bourdieu's work is not an arbitrary result of historical contingencies, but rather the logical consequence of a critical experience and an epistemological reflection on the deficiencies of the dominant quantitative methods in social sciences.

Bourdieu refrained from using conventional statistical techniques - such as regression analysis - not out of ignorance or lack of knowledge, but due to the limits of these techniques, especially the way they were used at that time, very much in line with a *sociology of variables*<sup>3</sup>.

In the 1960s regression models were widespread in the Anglo-Saxon social sciences and quickly became the dominant quantitative approach. Bourdieu was very sensitive to the objectifying power of statistics, but he was also aware of the risks involved in this process. This is because, in the author's view, the various statistical techniques contain implicit social philosophies that must be made explicit, since each of them contains its own notions of causality and social action.

The purely statistical calculation of variations in the intensity of the relationship between such an indicator and this or that practice does not authorize us to dispense with the strictly sociological calculation of the effects that are expressed in the statistical relationship and whose discovery can occur with the contribution of statistical analysis when it is oriented towards the search for its own intelligibility. Only through a work that, taking the relationship itself as an object, questions its sociological significance and not its statistical significance, is it possible to replace the relationship between a supposedly constant variable and different practices by a series of different effects, sociologically intelligible constant relationships that manifest and conceal themselves, at the same time, in the statistical relationships between the same indicator and different practices (BOURDIEU, 2006, p. 26, our translation).

<sup>2</sup> As Klüger (2018, p.71, our translation) points out “One of Pierre Bourdieu's youngest disciples, Frédéric Lebaron is an important bridge for the dissemination of the method in Brazil. His ties with professors Roberto Grün and Julio Donadone, specialists in economic sociology and finance, favored the holding of courses on Pierre Bourdieu's theory and methods in Brazil and served as a bridge for several students at the Federal University of São Carlos to study the technique with him in France and used it in their theses”. More details will be discussed in this article, in the section - The “school” of geometric modeling in Brazil.

<sup>3</sup> The term *sociology of variables* or *variable-oriented sociology* can be found in several works by Bourdieu and consists of the criticism of statistical sociology developed by Paul F. Lazarsfeld, and it can also be understood as the criticism of a kind of *Doxa*, that forms the genesis of a “quantitative” sociology and that is still powerful today - especially in the United States (DUVAL, 2013); (POLLAK,1979); (BRY *et al*, 2016).

In the *sociology of variables*, causal factors act independently of each other, so these effects do not combine, but add up. Statistical individuals are assumed to be independent, and their characteristics have a unique meaning in all points of the analyzed social space.

On the other hand, for Bourdieu, social causality must be understood by observing the global effects of a complex structure of interrelations, which is not reducible to the combination of the “*pure effects*” of multiple independent variables based on a “*general linear reality*”.

By preceding the isolated analysis of each variable, as is often the case - for example, sex or age which, *in their own way, can express* the global situation or the future of a class, there is a risk of attributing to one of the variables what is the effect of the set of variables (BOURDIEU, 2006, p. 100, our translation).

The use of statistical models depends on the understanding of what they represent - and the researcher must always keep in mind that the mathematical model does not allow the analysis by itself -, requiring a sociological look. Inspired by the epistemological reflection of Bourdieu's writings, this work revisits the author's statistical analyzes and presents the “school” of his geometric modeling replicated in Brazil. Finally, in the final considerations, he resumes the author's criticism of the dominant quantification methods of his time, seeking a possibility of a dialogue with quantitative traditions of the present day.

### **Young Bourdieu and young statisticians: A meeting in Algeria**

In Algeria, between the second half of the 1950s and the beginning of the 1960s, Bourdieu combined ethnography, sociology and statistics. In 1955, Bourdieu was called up for compulsory military service and, “*being inherently rebellious to military authority, he was quickly sent, for disciplinary reasons, to Algeria, to serve in the mission of “pacification” of the North African colony*” (WACQUANT, 2002, p. 97, our translation). He arrives in Algerian territory at a time of intense violence between the French army, on the one hand, and the anti-colonial insurgency led by the National Liberation Front (NLF).

This immediate experience of the painful realities of the wars waged by France against Algerian nationalism changed Bourdieu's intellectual destiny forever: the experience awakened his interest in Algerian society, from a political and scientific point of view, and promoted, in practice, his conversion from Philosophy to Social Science (WACQUANT, 2002 p. 97, our translation).

After the end of his mandatory military service, in 1957, Bourdieu decided to remain in the country, occupying a professorship at the University of Algiers and writing his first book *Sociologie de l'Algérie*, in 1958. His studies on Algerian society and the search for data for his

research led the author to forge links with young statisticians from the *Institut National de la Statistique et des Etudes Economiques* (INSEE)<sup>4</sup>, who carried out sociodemographic studies in the region. This intellectual dialogue would continue for several years and resulted in several works: *Travail et travailleurs en Algérie*, written with Alain Darbel, Jean-Paul Rivet and Claude Seibel; and *Le déracinement* written with Abdelmalek Sayad are examples of applying an anthropological perspective and a sociological interpretation to statistical research data.

His first two major books, written almost simultaneously after an intense period of research, combining statistical analysis and Ethnography *Le déracinement and Travail et travailleurs en Algérie* (BOURDIEU; SAYAD, 1964; BOURDIEU; DARBEL; RIVET; SEIBEL, 1963), deal with on both sides of the same cataclysmic transformation. The first – *Le déracinement* – describes the accelerated destruction of the Algerian peasantry under the pressure of land dispossession, the commodification of social relations and the forced settlement of millions of people imposed by the French army in its fruitless effort to contain the nationalist insurgency. The second – *Travail et travailleurs en Algérie* – surveys the formation and the growing abyss between the stable industrial proletariat and the subproletariat without initiative condemned to the poverty economy of the streets and to the “traditionalism of despair”, which makes it susceptible to all kinds of forms of political manipulation (WACQUANT, 2006, p. 15, our translation).

In 1961, Bourdieu left Algeria, but scientific exchanges continued in France, at the *Centre de Sociologie Européenne*. This fact is reflected in the contribution of the statistician Alain Darbel to *Les Héritiers* (BOURDIEU; PASSERON, 1964) - which calculated the chances of access to university for the various categories of social class and in *L'amour de l'art* (BOURDIEU; DARBEL, 1966), in which Darbel developed mathematical equations for demands for cultural goods, and cultural capital - measured according to schooling - appears as the central variable that helps explain inequalities in access to museums.

In 1996, Bourdieu and Darbel published the chapter "*La fin du malthusianisme*" in the book *Le partage des benefices* (DARRAS, 1966). In the text, the authors propose a mathematical fertility equation by income level, based on econometric models of consumption, and thus explain the “Baby Boom” that France was experiencing. The modeling of fertility by income is accompanied by a severe criticism of the use of regression techniques in the social sciences, particularly on multicollinearity problems<sup>5</sup>; and by separating the respective

<sup>4</sup> INSEE - *Institut National de la Statistique et des Etudes Economiques* is the National Institute of Statistics and Economic Studies.

<sup>5</sup> In regression models, independent variables cannot present high correlation with each other, the so-called assumption of non-multicollinearity. In addition, the homogeneity of variance is a central assumption of the regression model, hence the criticism that the structure is refracted in a given social group.

influences from the social determinants of fertility, ignoring the structure, punctuating how this structure is refracted in a given social group.

During this period, Bourdieu was starting to formulate the concepts of “*habitus*”, “field” and his “theory of practices” and it can be said that the author was in search of formalization and quantification instruments capable of apprehending his vision of social reality and the various types of capital. In the same period, the geometric approach to data analysis was emerging, developed by Jean-Paul Benzécri and his school around Correspondence Analysis, and Bourdieu turns to this approach (LEBARON; LE ROUX, 2015).

The geometric modeling of data through Correspondence Analysis (CA), in particular Multiple Correspondence Analysis (MCA) aims at relationship structures and, therefore, the method presents “affinities” with a relational (or structural) social science, very more than the techniques imported from the experimental sciences that aim to measure “specific effects” (or “*pure effects*”) and that neutralize the effects of structure (DUVAL, 2016).

Bourdieu, in the preface to the German edition of *Le métier de sociologue* stated: “I use Correspondence Analysis because I think it is essentially a relational procedure in which philosophy fully expresses what, in my view, constitutes social reality. It is a procedure that 'thinks' in relations, as I try to do with the concept of field” (LEBARON, 2009 p. 13, our translation).

### **The Geometric Analysis of Data in Bourdieu's Works**

Geometric methods - or geometric data analysis - allow a spatial representation of data. For its realization, tables are used that cross statistical individuals and variables that are categorized. The model is based on three basic principles:

The first of them deals with geometric modeling and states that for each variable one can think of a spatial representation and, therefore, for a set of  $n$  variables, one can establish a representation by means of a “cloud” of points in  $n + 1$  dimensions.

The second principle is the formal approach based on abstract linear algebra. From it it is defined that a “cloud” is a set of weighted points in a Euclidean space.

The third principle deals with the inductive procedure. In the inductive procedure, what is studied descriptively aims at generalization, that is, “*the description comes first*” - contrary to stochastic models and sampling-oriented approaches. In geometric analysis, statistical induction is conceived as an extension of descriptive conclusions and statistical analysis is not reduced to probability. The geometric analysis is carried out from the representation of the

modalities and individuals in axes, where the variance is maximized – in inertia axes or factorial axes. The aim is to provide a tangible view of multidimensional realities by reducing dimensions (LE ROUX; ROUANET, 2010)

Correspondence Analysis (CA) was used in Pierre Bourdieu's work for the first time in *L'anatomie du goût*, an article written in partnership with Saint-Martin (1976) and was carried out with the help of Salah Bouhedja, Bourdieu's statistical technician. Data were collected through survey-type questionnaires composed of two complementary samples, which used the same basic questionnaire. The scientific objective was to provide a synthetic view of the social space as a global structure (which is presented in an “artisanal” way in a result of successive correspondence analyses) and to deepen the analysis of two subsectors within this social space: the space of the dominant classes and the space of the middle classes (“petty bourgeoisie”) (LEBARON, 2009).

The analysis was resumed in 1979 in the classic *La Distinction*, with elements of geometric data modeling present. CA's successive analyzes present in the “**Second part - The economy of practices**” in the section “**A space with three dimensions**” allow Bourdieu to describe “*a space whose three fundamental dimensions are defined by the volume and structure of capital, as well as by the evolution in the time of these two properties - manifested by its past trajectory and its potential in the social space*” (BOURDIEU, 2006, p. 107, our translation). Correspondence analyzes are made for the middle and upper classes, which are used for sociological analysis and interpretation.

An interesting aspect of the methodology was the choice of active and supplementary variables. Questions about taste and cultural practices were taken as active variables in the analysis; sociodemographic and occupational variables (age, father's profession, education level and income) were used as complementary variables. Guided by the idea of homology between classes, Bourdieu compares specific fractions of the upper and middle classes (petty bourgeoisie). In the “**Third part - Taste of class and lifestyle**”, the geometric analysis allows operationalizing the concept of “*habitus*” and isolating “*different coherent sets of preferences, whose origin is found in systems of distinct and distinctive dispositions, defined both by the relationship established among themselves and by the relationship that unites them to their conditions of production*” (BOURDIEU, 2006, p. 242, our translation).

In what would be the “cloud” of individuals, the contours of several subclouds are presented: drawn as frames, inserted in the 1<sup>o</sup> axis of inertia and 2<sup>o</sup> axis of inertia; the frames represent fractions of the dominant class, as can be seen in the figure below, present in “The Distinction”. Titles corresponding to the strongest absolute contributions were indicated on the





ontology, methodology and social theory, and invites us to specify the conditions under which various agents will (or will not) adhere to a collective practice, and in which domains of social life (WACQUANT, 2013 p. 93, our translation).

In *Le patronat*, from 1978, there is the second occurrence of the use of geometric methods of data analysis in the works. Bourdieu and Saint-Martin analyze, combining MCA and prosopography with a certain population of economic elites (heads of companies, CEOs). In this article, republished in “*La noblesse d’Etat*”, 1989, the statistical tools of the MCA are used as a way of discovering a hidden relational reality, which is not conscious for the agents, but which is revealed with the analysis. The theoretical-methodological novelty is due to the use of biographical data - collected from different sources - that is, the “prosopography”, which helps to define the volume of the various types of capital at stake.

Demographic properties, social and family origin, educational and professional background, official distinctions used to denote symbolic capital and indicators of adherence to specific groups are grouped into different groups of questions, in order to observe different types of capital in action. The cloud of individuals contains the names, or initials of the elites, which allows the reader to recognize the agents, which also allows a direct intuition of the social structure of the field (LEBARON, 2009).

The alliance between MCA and prosopography is present in Bourdieu's other works, which aim to quantify and formalize data in order to understand the space of strategies in a specific field. *Homo Academicus*, from 1984, uses systematic information about academics in France, aiming to explain the specific crisis that occurred within the academic field during the events of May 68. “*L’économie Domestique*”, from 1990, describes the market for individual houses in France, carrying out an analysis of the “*field of producers*” and the “*field of efficient agents*” involved in the elaboration of a public policy for this sector.

It is worth mentioning the model used in *Une Revolution Conservatrice dans l’édition*, from 1999, written in collaboration with Brigitte Le Roux and Henry Rouanet, which uses a *specific MCA* - a method invented by Brigitte Le Roux and Jean Chiche that allows analysts to determine certain modalities of questions as “*passive modalities*” of active questions without destroying the symmetry properties of the method (LEBARON, 2009).



## The “school” of geometric modeling in Brazil

It is a fact that the works of Pierre Bourdieu quickly<sup>6</sup> arrived in Brazil. It is also important to point out that, in France, colleagues and followers of Bourdieu had already been using geometric methods since the mid-1970s. However, attention should be paid to the fact that in Brazil “*geometric analysis entered the Brazilian social sciences relatively late*” (KLÜGER, 2018, p. 71, our translation). As Klüger points out, not all of Bourdieu's works that use MCAs have been translated into Portuguese and most of the translations are recent<sup>7</sup>. Added to this, there are still few methodological texts in Portuguese that specify the use of the technique and whose target audience are sociologists and social scientists in general.

It can be said that in Brazilian social sciences, in general, there is “*a certain hostility towards quantitative methods and statistics*” (SOARES, 2005 p. 27). As a result, the production of articles and theses that employ quantification techniques is low, there is a shortage of social scientists proficient in quantitative analysis, and the false dichotomy between qualitative and quantitative methods still exists in the discourse and practice of social scientists (CANO, 2012).

In this scenario, the dissemination of the quantitative aspect of Pierre Bourdieu's empirical works occurred through the approximation of young researchers from the emerging field of Brazilian economic sociology, interested in economic sociology of Bourdieusian inspiration. “*One of the youngest disciples of Pierre Bourdieu, Frédéric Lebaron is an important bridge for the dissemination of the method in Brazil*” (KLÜGER, 2018, p. 71, our translation).

In this way, it is possible to establish the event “*First Conference on Economic Sociology in Pierre Bourdieu*”, which took place in 2008, as a milestone for this dialogue in the Brazilian social sciences. The course, taught in French by Professor Frédéric Lebaron and with simultaneous translation by Roberto Grün, organized by the Nucleus of Studies in Sociology of Economics and Finance (NESEFI-UFSCar) took place between April 15 and 17 of that year and marked a partnership between the Nucleus of Studies and the French professor.

In 2010, the partnership was repeated in the course “*Quantitative methodology applied in studies of economic sociology and finance and other sociologies*”, funded by FAPESP and held between 1 and 30 of April of that year, supervised by the then young doctor Maria Jardim, who had just returned from his postdoctoral studies in France and had strengthened ties with

<sup>6</sup> For more details, consult the article by Maria Eduarda da Mota Rocha and Gabriel Peters, *Facetas de um Bourdieu tupiniquim: Momentos de sua recepção no Brasil* (DA MOTA ROCHA; PETERS, 2020).

<sup>7</sup> Namely 2006 for the book *A Distinção: crítica social do Julgamento*; 2011, *Homo Academicus*; and the article *Uma revolução conservadora* in the 2018 edition.

Frédéric Lebaron. In that context, the young doctor got her first approval for a Visiting project at Fapesp, which signals the importance that the topic was beginning to gain at that research institution.

The set of young researchers involved in these events today translates into a large part of the network of professors and researchers who use and disseminate the method of geometric data analysis “*alla Bourdieu*”<sup>8</sup> in Brazil.

Marina Sartore, one of the young researchers who organized the 2008 event, used aspects of the formalization and quantification of the geometric method in her Doctoral thesis entitled *Convergência de elites: a sustentabilidade no mercado financeiro* (Convergence of elites: sustainability in the financial market) (SARTORE, 2010) and was one of those responsible for organizing from the lecture by Rodrigo Cantu, at the time studying for a master's degree at the University Research Institute of Rio de Janeiro, at NESEFI, in 2009. Cantu's master's thesis, *A ciência dos economistas: entre dissensos científicos e clivagens morais* (The science of economists: between scientific disagreements and moral cleavages) (CANTU, 2009), contains one of the first MCAs carried out by this group of Brazilian “young researchers”. The article with the MCA was presented at the *32nd Anpocs Annual Meeting* (2008), under the title *O campo dos pesquisadores em Economia no Brasil do século XXI* (The field of researchers in Economics in Brazil in the 21st century).

We can say that the analysis of the field of economists is a theme that contributes to the dissemination of geometric modeling in Brazil. The article by Frédéric Lebaron: *O campo dos economistas franceses no fim dos anos 90: lutas de fronteira, autonomia e estrutura* (The field of French economists in the late 1990s: border struggles, autonomy and structure) was published, in Portuguese, in 2001 in the journal MANA. In addition, we can mention the dissertation by Cantu (2009), the Doctoral thesis by Elisa Klüger (2017)<sup>9</sup>, who also conducts MCAs on the subject in her article *Mapping the inflections in the policies of the Brazilian National Economic and Social Development Bank during the 1990s and 2000s within social spaces and networks* (KLÜGER, 2018); and, we should also mention the Doctoral thesis by Marcio Rogério Silva (2017), *Banco Central e os sentidos sociais da ação em política monetária: as justificações morais distintas dos usos sociais do dinheiro* (Central Bank and the

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<sup>8</sup> “*alla Bourdieu*” because the Multiple Correspondence Analysis (MCA) technique; and Simple Correspondence Analysis (CA) are quantitative methods used by different areas of knowledge, in this article, the technique is emphasized together with the sociological analysis that it allows.

<sup>9</sup> KLÜGER, Elisa. *Meritocracia de laços: gênese e reconfigurações do espaço dos economistas no Brasil*. 2017. Doctoral thesis. University of Sao Paulo.

social meanings of action in monetary policy: the distinct moral justifications of the social uses of money)<sup>10</sup>.

Marcio Rogério Silva, currently a professor at the Federal University of São Carlos - Lagoa do Sino campus-, a NESEFI researcher is a frequent collaborator of another researcher responsible for Frédéric Lebaron's courses in Brazil, Maria Chaves Jardim. Jardim was one of the young researchers who, based on the networks established by Roberto Grün and Julio Donadone, organized the first Lebaron events in Brazil. She is currently Associate Professor of Economic Sociology at the Araraquara campus of the Universidade Estadual Paulista-UNESP, where she coordinates the Research Center on Emotions, Society, Power, Organization and Market (NESPOM) and also applied the method, with the support by Marcio Rogério da Silva in his thesis, entitled “*Governo Cardoso (1995-2002) e Governo Lula (2003-2010): Homologia entre trajetórias dos ministros e crenças econômicas estatais vigentes*” (Cardoso Government (1995-2002) and Lula Government (2003-2010): Homology between Ministers' Paths and Current State Economic Beliefs). Both, Jardim and Silva, spread the teaching and application of MCAs in the Brazilian Social Sciences - and the partnership with Lebaron bears fruit until the present day.

Antônio José Pedroso Neto, who was also part of the NESEFI generation of “young researchers”, is currently a professor at the Federal University of Tocantins and disseminates the use of MCA allied to Bourdieu’s theories in his works on economic journalism (PEDROSO NETO, 2015) and among your students.

Other NESEFI researchers were directly supervised by Frédéric Lebaron during their Sandwich PhD internships in France and had the opportunity to learn the nuances of Pierre Bourdieu's method of formalization and quantification. Thais Joi Martins produced the thesis *Desejo, necessidade e realidade: os marcadores culturais e econômicos e suas implicações ocupacionais para o grupo profissional de engenheiros de produção* (Desire, need and reality: cultural and economic markers and their occupational implications for the professional group of production engineers) (2015); Marcela Purini Belem presents the thesis *A lei Rouanet e a construção de um mercado de patrocínios culturais no Brasil* (The Rouanet law and the construction of a cultural sponsorship market in Brazil) (2015); and Leandro Garcez Targa, *Os diplomatas brasileiros sob a perspectiva relacional: o campo dos diplomatas e o campo político* (Brazilian diplomats from a relational perspective: the field of diplomats and the political field) (2017).

<sup>10</sup> SILVA, Márcio Rogério. Banco Central e os sentidos sociais da ação em política monetária: as justificações morais distintas dos usos sociais do dinheiro. 2017. Doctoral Thesis. Federal University of São Carlos (UFSCar)

However, it is not only economic sociology that disseminates the “school” of geometric modelling. In the field of sociology of culture, Edison Bertoncelo launched in 2022 the book *Construindo espaços relacionais com a análise de correspondências múltiplas: aplicações nas ciências sociais* (Building relational spaces with the analysis of multiple correspondences: applications in social sciences) (2022). At the Department of Sociology at USP, where he works as professor of Sociology at the College of Philosophy, Letters and Human Sciences, Bertoncelo had already promoted courses on the subject and his research disseminated the use of this methodology. In addition, other areas and other networks of sociologists also make use of the method.

In the area of sociology of education, Graziela Seroni Perosa and Cristiane Kerches da Silva Leite write, in direct collaboration with Lebaron (2015), the article “*O espaço das desigualdades educativas no município de São Paulo*” (The space of educational inequalities in the municipality of São Paulo). A pioneering study on the use of MCA in this area is that of Ana Paula Hey, who was a contemporary of Lebaron when she was part of her doctorate at EHESS, in the early 2000s, a work published in the book *Esboço de uma sociologia do campo acadêmico: a educação superior no Brasil* (Sketch of a sociology of the academic field: the education higher education in Brazil) (2008). It is also possible to find an article on the space of cultural practices by Lebaron and Philippe Bonnet (2016) in the issue on social classes and inequalities of Tempo Social journal, organized by Edison Bertoncelo (2016), who also uses MCAs in his research in the area of social classes and culture, as in “The space of social classes in Brazil”. In the area of political elites, there is another link with France, sewn by Odaci Luiz Coradini (2006), who did a research internship at EHESS, in 2000, and soon used MCAs in works, see “*Representação profissional e elites políticas no Brasil no período recente*” (Professional representation and political elites in Brazil in the period recent). The dissemination of the technique promoted by Coradini can be seen, for example, in the work of his advisee Rodrigo Bourdignon (2017), who uses the technique to talk about “*Recrutamento e modalidades de entrada na carreira política: candidatos aos cargos legislativos no Rio Grande do Sul*” (Recruitment and modalities of entry into the political career: candidates for legislative positions in Rio Grande do Sul) (KLÜGER, 2017 p. 72, our translation).

The brief presentation of the various researchers and areas of sociology that use the method demonstrates that, in recent decades, this type of geometric modeling has been widespread in Brazil. In general, researchers combine prosopography with MCA and an interesting aspect of the research is that, like Bourdieu, researchers in sociology who use the method do so for the explanatory potential of the methodology, guaranteeing a result capable of breaking with the dichotomy between qualitative research and quantitative. These important aspects of empirical research in Brazil must be highlighted and celebrated.

Simon Schwartzman in, “*O Dom da eterna juventude*” (The Gift of Eternal Youth) (1971, our translation) stated that few would disagree with the “*unpleasant inability of the social sciences to behave correctly like the other sciences*”, that is, the difficulty of the Social Sciences in producing analyzes within the canonical paradigm of scientific inference. Bourdieu and his method demonstrate how, in reality, it is fundamental to look at this paradigm in a different way.

If, in terms of quantification and formalization of data analysis, opposition between Geometric Data Analysis (GDA) and regression models is common - which is erroneously stated as the only method for inferring causalities - this article aims to demonstrate that the inferential basis of the scientific method in sociological research is not linked to just one model. Only through scientific dialogue and methodological choices defined on a case-by-case basis is it possible to advance science.

### **Final considerations**

Bourdieu neither approved nor practiced the traditional rhetoric of quantitative publications - which present empirical data and hypotheses with results that confirm or do not confirm the hypothesis. For the author, the centrality of research would not be limited to the use of a model, but rather the search for questions of causality and their scientific explanation. As Lebaron (2009) points out, the author did not clearly separate his sociological interpretations from his statistics.

Bourdieu's texts are not accompanied by statistical uncertainty measures - standard error, confidence interval - and, currently, would not meet the “replication standards”. For this reason, it can be said that the way in which his statistical practice was integrated into his sociological writing does not encourage dialogue with other quantitative traditions. However, this dialogue is possible, as Bourdieu, in a pioneering way, broke the false dichotomy between qualitative and quantitative methods. In honor of him and for his lifetime commitment to precise quantification instruments, it is up to new generations to establish new scientific dialogues.

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