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Learning from the "Probabilistic Revolution" History. Alain Desrosières's French school

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► **To cite this version:**

Fabrice Bardet. Learning from the "Probabilistic Revolution" History. Alain Desrosières's French school. The Social Sciences of Quantification. From Politics of Large Numbers to Target-Driven Policies, 2016. hal-03106713

HAL Id: hal-03106713

<https://hal.science/hal-03106713>

Submitted on 12 Jan 2021

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Fabrice Bardet, “Learning from the history of the probabilistic revolution: the French school of Alain Desrosières” in I. Bruno, F. Jany-Catrice, B. Touchelay (eds) *The Social Sciences of Quantification. From Politics of Large Numbers to Target-Driven Policies*, Springer, 2016.

Abstract In this chapter, Fabrice Bardet, a long-life student of Alain Desrosières tells the amazing academic dynamic that Alain Desrosières created around him. From the 1990s to his death in 2013, he was, without any doubt, the French scholar situated in the center of the sociological field dedicated to quantification’s processes. Fabrice first comes back on the history of his master, a story that he had been told several times, by his side. Then he tells the story of the influence of his master on several generations of scholars, in France and abroad. He insists, among other things, on the importance that Alain Desrosières gave, from his main book published in 1993, *The Politics of Numbers*, to his most recent publications, to the influence of the writing of *The Probabilistic Revolution*, in the 1980s, in an international context, set up in Bielefeld, Germany. From this perspective, he explains how, in his own view, this focus made by Desrosières participated in creating a French school for sociology of quantification.

Theodore Porter, one of the main historians of the "Probabilistic Revolution", maintains that the impact of this history on the social sciences was stronger in France than anywhere else. Written after a seminar organized in the early 1980s at Bielefeld, in Germany, by the *Zentrum für interdisziplinäre Forschung (Zif)*, this history was the fruit of a long interdisciplinary encounter envisioned by physicist and philosopher of science Lorenz Krüger and sustained by the research dynamic stemming from Thomas Kuhn's work on the structure of scientific revolutions. The revolution, which played out primarily between 1800 and 1930, placed the statistical sciences at the heart of all the activities of all the intellectual disciplines, throughout the world. The widespread use in industrial societies of "quality" tests is the product and symbol of this revolution. In France, Alain Desrosières, who had not been part of the Bielefeld group, was enthused by this masterpiece in the contemporary history of science immediately on its publication (Krüger et al. 1987, Krüger et al. 1987). He made it a basis for developing his plan for a historical sociology of quantification. He led a number of peers and students in this endeavour and was unquestionably the individual largely responsible for bringing this French school of the sociology of quantification into being. Within this school, the hypothesis of an accounting counter-revolution, dialectically linked to the probabilistic revolution, took shape as a means of shedding light on contemporary modes of government¹.

¹ I would like to thank Roser Cussó, Elisabeth Zucker, Morgane Labbé and Philippe Corcuff for their suggestions and comments.

1. The meeting with sociology

Alain Desrosières studied the sociology that Pierre Bourdieu taught at the *Ecole nationale de la statistique et de l'administration économique* (ENSAE) in Paris, from 1963 to 1966. Bourdieu had just returned from Algeria where he had worked with three administrators of the *Institut national de la statistique et des études économiques* (INSEE), with whom he had published one of his first books (Bourdieu et al. 1963). He nurtured the hope of initiating a large-scale quantitative sociological undertaking like the one that had started to develop in the United States (Desrosières 2003). Alain Desrosières was part of that generation of INSEE administrators influenced by Pierre Bourdieu's teaching but who ended up developing an area of sociological enquiry that was actually quite distant from that of the master: not "with" but "about" statistical tools. His first objective was to establish their history (Affichard 1977, Desrosières et al. 1976, Guibert et al. 1971).

This difference of perspective fully explains Alain Desrosières' decision, in 1984, to support the creation establishment of the *Groupe de sociologie politique et morale* (GSPM). One of the group's founders, Laurent Thévenot, also an INSEE administrator, was working at the time with the sociologist Luc Boltanski on the operations of social taxonomy (Boltanski,Thévenot 1983), and with Robert Salais, another INSEE administrator, on the conventions structuring labour markets (Salais,Thévenot 1986). These two research projects were to lead to the development of the "economics of conventions" (Desrosières 2011). The influence of Alain Desrosières, and in particular that of his work on the long history of French socio-occupational classifications (SOCs) (Desrosières 1987 (1977)), was decisive in these entangled dynamics, as the introduction to the book that brought them together attests (Boltanski,Thévenot 1991). Desrosières' approach to sociology was to change as a result. This was evident in the first book that he published, with Laurent Thévenot, on SOCs, in which he explored their history on the occasion of their reform and which has remained a reference for French sociology students (Desrosières,Thévenot 1988). It was around this time that Desrosières' perspective shifted in a sense from social history to the historical sociology of statistics.

2. The Probabilistic Revolution as a historical and sociological tool

In fact this was more than a shift, for Alain Desrosières probably imagined the addition of a line of "tension", to use one of his favourite terms. He studied the history of sociology and that of its genetic ties with statistics, in particular (Desrosières 1985). At the time, however, he was also regularly participating in the seminar on the history of the calculation of probabilities organized by Ernest Coumet, Marc Barbut and Bernard Bru, all of whose work he admired. That was where, in May 1987, he met Lorenz Krüger, who had been invited to MIT on the occasion of the publication of *The Probabilistic Revolution*. A few months later he met Lorraine Daston, whose work, following on from that of Coumet, was concerned with the development of the first probabilistic techniques by Italian city state bankers during the Renaissance (Daston 1989).

This contact with the Bielefeld group opened up new horizons for Alain Desrosières. For several years, he had been seeking to develop links with research projects abroad. He had combed through the English-language journals, in particular, and in 1984 had come across Simon Szreter's work on the British census office (Szreter 1984). He wrote to Szreter and, thanks to him, was invited to the 150th anniversary of the General Register Office organized in 1987 in London (Szreter 1991). There he met Margo Anderson (then Conk), a specialist in census taking in the United States (Anderson 1988). This conjunction of research endeavours, which Bielefeld had facilitated, acted as a catalyst for Alain Desrosières' hopes for federation.

A few months after meeting Lorraine Daston, he attended a conference organized at the *Ecole normale supérieure* (ENS) by the *Institut d'histoire moderne et contemporaine*, where he delivered a paper summarising his thinking and highlighting his background (Desrosières 1989). He outlined his vision of a sociology of the genesis of statistical codes as being linked to Boltanski's investigation (in his book *Les cadres*) into "things that hold" and that of Thévenot into "investments of form" (*Idem*, p. 225). However, in the catalogue of work produced from this perspective, Alain Desrosières accorded a new place to the history of the calculation of probabilities. He argued that coding required thinking in terms of equivalence or resemblance between objects of the same category and posited that historians of probabilities facilitate progress on modes of comparison. He cited Coumet, Hacking and Daston (*idem*, p. 227). However, this intuition had yet to be developed. Alain Desrosières then sought – as the topic of his paper suggests – holding together things that did not yet hold together!

Invited shortly afterwards to an international conference on the history of the social sciences, he delivered this paper translated into English. This was the first time that Alain Desrosières had published in English. This paper introduced his work to a broader audience and made his name more widely known. The fact that the conference was held in Berlin on 8 to 10 November 1989, right at the time of the fall of the Wall, certainly played its part in making the interaction there unforgettable for the participants. Anthony Giddens alludes to this in his preface to the proceedings, published as a book (Wagner et al. 1990). The participation of Giddens, who was already widely renowned at the time, reflects above all the significant editorial work carried out by the conference organiser, Peter Wagner, to whom Alain Desrosières had been introduced two years earlier by Michael Pollack.

This was the first article by Alain Desrosières cited by Theodore Porter – although Porter was already familiar with the French-language literature – in an article based on a paper delivered at Courmet's seminar that he published in *La Revue de synthèse* (Porter 1993). Theodore Porter now also associates his meeting with his French colleague with the title of that paper in English: "How to make things which hold together?" At the time, he saw the similarities between this article and the approach Desrosières was adopting in his work with Laurent Thévenot and Luc Boltanski (*idem*, p. 95-96). From this point of view he was supplementing the comments that Lorraine Daston had made a few months earlier on Alain Desrosières' undertaking (in an article in which Theodore Porter was thanked for reading the text), citing the work with Thévenot on socio-occupational classifications that had been published when he attended Courmet's seminar (Daston 1992).

It was also in relation to this first text in English by Alain Desrosières that his research was cited for the first time, in 1993, in *Accounting, Organizations and Society* (AOS), which was becoming *the* reference journal of the sociology of accounting – the other main form of quantification, along with statistics. This citation was by two American public policy analysts who, at the time, were studying the development of statistics in audits (Carpenter, Dirsmith 1993). Carpenter and Dirsmith followed the initiative of their colleague in London, Michael Power who, with his colleague Peter Miller, had had the idea a few years earlier of inviting Theodore Porter to the LSE (where the main players in AOS worked). Their idea was to analyse possible links between the sociology of accounting and the sociology of statistics, which had resulted, in particular, in an article in AOS (Power 1992).

It was this same paper by Alain Desrosières that appeared in Wendy Espeland's programmatic reflection several years later (Espeland, Stevens 1998). Espeland had been working for a long time on the sociology of quantification, in fact from the time of her PhD, the subtitle of which highlights the notion of "commensuration" (Espeland 1992). However, she had also examined the evolution of accounting practices in research, which had led to a publication in AOS co-authored with a colleague at North Western University, where she had taken up a position (Espeland, Hirsch 1990). From this perspective, she studied the work of Theodore Porter following his visit to the LSE (Espeland 1994), in particular his most recent book, which she reviewed (Espeland 1997). Theodore Porter included a significant bibliography of Alain Desrosières' research. However, only one reference was in English: the same article in which Desrosières incorporated the history of the probabilistic revolution into his analysis.

Apart from the Berlin episode, Alain Desrosières also incorporated the dynamic triggered by Bielefeld into the heart of his thinking, as the introduction to the pioneering book he was writing at the time attests (Desrosières 1993). In his daily interaction with his colleagues he put even more emphasis, perhaps, on the seminal dimension of the dynamic that had been set off there. He engaged in research on the genesis of sampling surveys, and was joined by several colleagues: Emmanuel Didier, Einar Lie and Martine Mespoulet (Desrosières 2002). More broadly speaking, he constantly initiated new research projects that regularly intersected with the probabilistic revolution. Personally, I owe to him my work on controversies around the introduction of survey techniques in censuses (Bardet 2007), on the revival of experimentation techniques in public policy (Bardet, Cussó 2012, Bardet et al. 2011) and, even more recently, on the invasion of accounting figures in organizations and policies (cf. *infra*).

The most significant outcome of Alain Desrosières' interest in the dynamic of the probabilistic revolution was probably the fact that he was adopted by the leading members of the Bielefeld group. Apart from his above-mentioned relations with Lorraine Daston and Theodore Porter, which he nurtured, Desrosières maintained a privileged relationship with Ian Hacking. His preface in the French translation of Hacking's famous book *The Emergence of Probabilities*, published in English over twenty-five years earlier (Hacking, 2002), bears witness to this. On the occasion of a one-day conference organized for the launch of this French edition at the ENS on 6 February 2002, Hacking, who presented his "historical meta-

epistemology" in that book, paid homage to "Alain's" brilliant reading of his work (*idem*, p. 14).

3. Considering contemporary quantifications

Even though the probabilistic revolution afforded Alain Desrosières an opportunity to return to his original sociological perspective, which was historical, he never abandoned his interest in contemporary situations and controversies. It was probably to that interest that I owe my first meeting with him, in 1994. I had been appointed a year earlier to the position of engineer at the Department for Planning and Infrastructure – now Ecology and Sustainable Development – and had just completed my master's in political science, which had led me to his most recent article (Desrosières 1994). This text, the work of a group within the GSPM, part of which had been published in the *Revue française des affaires sociales* (Corcuff et al. 1993), focused on the implications of the career on which I was then embarking: the links between scientific expertise (here, statistics) and the governing of territories. It was therefore from the army barracks at Metz, where I was doing my military service that I sent him my thesis, asking for his comments. Very shortly afterwards I received a long reply, accompanied by an invitation to continue the discussion when I could get a pass (Bardet 2000). From our first meeting, in his Rue Daguerre neighbourhood in Paris, he suggested the subject of my PhD, namely the history of the links between statistics and the French regions (Bardet 2000).

During our conversations, which rapidly became regular events, he showed an interest in the workings of my ministry: first, in the urban policy sector, in particular, with regard to which he put me in touch with a brilliant colleague whose work had not yet been published (Tissot 2007); second, in the social housing sector, on which he recommended reading the work of a colleague in Lyon with whom I had lost touch (Stavo-Debauge 2003); and finally the transport policy sector, which he encouraged me to look into (Bardet 1998). He also constantly urged me to study the statistics of other sectors of the state, such as health (Berlivet 1995), and of other countries, such as Germany (Labbé 1998) or Russia (Mespoulet 2001), as well as other controversies in the field of statistical expertise, in which the INSEE unions were key players (Desrosières 1996). It was during one of them that I met his lifelong friend, Elisabeth Zucker, whose fighting spirit, in sociology and everything else (Lucionero et al. 2001), brought me even closer to the man who probably, at the time, became my mentor.

Apart from statistics, Alain Desrosières developed his sociological interest in scientific or rationalizing activities. He was very close to the Alexandre Koyré Centre for the Sociology of Science, and to its leading figures at the time, Amy Dahan and Dominique Pestre (Dahan Dalmedico et al. 1995). Among the rationalizing enterprises he investigated, the one devoted to the hope of quantification naturally took most of his attention, in addition to statistics *per se*. His enthusiasm for my master's thesis on the development of observatories in local communities (Bardet 1994), operated aside from academia and the official state statistics dominated in France by INSEE (Rouchet 1999), had been the initial clue for me. He also very quickly became keenly interested in the genesis of policy evaluation in France, led by Vincent Spenlehauer who at the time was working in my research centre at the ENTPE (Spenlehauer 1998).

From this pluralist perspective, Desrosières steered me towards Theodore Porter's work. With the publication of Porter's new book that proposed comparison of the quantification work of various professions, in various countries and at different times (Porter 1995), he encouraged me to submit a review to the journal *Genèses*, of which he was an active member of the editorial committee (Bardet 1997). In my review I presented the main hypothesis of the book, i.e. that quantification was usually the outcome – counter-intuitively – of the initiatives of professional groups with questionable legitimacy. However, with hindsight it appears that what Theodore Porter offers throughout this book is a real epistemological feat, in which he conceptualises various forms of quantification, especially statistical and accounting quantification, within a common framework.

According to Theodore Porter himself, the core of the argument developed in *Trust in Numbers* was already present in an article that he had published three years earlier (Porter 1992), following a talk he gave at UCLA a year before being joining that university². Thus this was a thesis he developed in the months following the paper which he delivered in 1990 at the LSE (Porter 1992). There is no point in seeking to pinpoint the specific role of this meeting between sociologists of accounting at LSE in the dynamic of the Porter's career as a sociologist of statistics. However, it is certain that this role was decisive, especially since one of the members of the LSE team, Michael Power, embarked on publication of the ideas generated by this meeting, in which the work of Theodore Porter featured prominently (Power 1996, Power 1994)³.

Michael Power did not extend the common framework applied to the various sociologies of quantification⁴. Theodore Porter did, however, especially in the course of a new collaboration with Alain Desrosières, who had been enthused by the perspective opened by *Trust in numbers*. When the new edition of *La politique des grands nombres* was published in 2000, he added a postscript in which he mentioned the sociology of accounting research stream that had developed around AOS and the team at LSE (p. 438). He also wrote numerous papers (published several years later) in which he sought the means to bring together the sociologies of statistics and of accounting, based on the work of Theodore Porter and Michael Power (Desrosières 2003, Desrosières 2001). To this end he worked with Michel Armatte on the historical junction between (probabilistic) econometrics and national accounting (Armatte, Desrosières 2000).

However, it was with Eve Chiapello, with whom he was collaborating at the time, that he had the idea of the *Premières journées de sociologie de la quantification* held in Paris on 23 and 24 May 2002. This gathering afforded an opportunity to prolong discussions with Theodore Porter, who was the guest of honour. He opened the first day of the conference, devoted to the sociology of statistics, whose organization Desrosières had entrusted to me. Also highly symbolically, Peter Miller opened the second day, devoted to the sociology of accounting, which Eve Chiapello had organized with her young colleague Carlos Ramirez. The proceedings of these two days were not published in a single opus – to my great regret –

² Email to the author, on 22 July 2013.

³ The first publication was a special issue of the journal *Science in Context*, after which a book was published by Cambridge University Press, with identical content except for the preface by Bruno Latour.

⁴ Interview with the author, July 2013.

but Alain Desrosières continued his collaboration with Eve Chiapello (Chiapello,Desrosières 2006).

In the footsteps of Alain Desrosières, who sought to rally the accounting side from the statistical side, Béatrice Touchelay was probably the first to have accomplished the entire crossing. Béatrice Touchelay was the author of an encyclopaedic thesis on the history of the INSEE from its origins up to the 1960s (Touchelay 1993) and which, thanks to Desrosières, provided crucial material for my own PhD. At the time, she opened up a new research front in the history of accounting quantification (Touchelay 2005, Touchelay 2005), which led to her *habilitation à diriger des recherches* (Touchelay 2011).

More or less at the same time, I organized an international seminar in October 2007 at ENTPE in Lyon on "Globalization of quantitative tools of government", to which we invited Margo Anderson, Wendy Espeland and Julia Mensink (a PhD student of Mary Morgan), as well as researchers in France, including Eve Chiapello, Roser Cussó, Florence Jany-Catrice and Béatrice Touchelay⁵. This seminar produced a number of publications. The first was an article by Wendy Espeland published several months later with Michael Stevens (Espeland,Stevens 2008). It was entitled "A Sociology of Quantification" and was enriched with references to work presented at the seminar, notably research in France (Bruno et al. 2006, Cussó,D'amico 2005), but also in the US (Anderson,Fienberg 1999), as Wendy Espeland herself points out with amusement. A few months later, Desrosières published a collection of articles under the title : *Pour une sociologie historique de la quantification* (Desrosières 2008). However, the introduction to this volume focused mainly on statistics – reflected in the title – and did not resume the line of enquiry initiated during the late nineties, in relation to the work of Porter and Power, which comprised Chapter 12. The most explicit outcome of this seminar, however, was the publication of some of the original papers written for the event in an issue of the *Revue française de socio-économie* (Bardet,Jany-Catrice 2010).

4. The improbable conjunction of the sociologies of quantification

Over twenty years have passed since the idea of a sociology of quantification was put forward, in which the two main forms that had existed historically, namely accounting and statistics, would be combined. Even though the main founders of this project have enjoyed international academic recognition, their work has not yet resulted in the institutionalization of a discipline, or even of an autonomous field of enquiry. Several explanations can be found for this incompleteness. The most apparent seem to be structural, related to the academic trajectories of the various promoters. However, a return to the genesis of this project has also revealed a historical cause, the nature of which could naturally turn out to be more conjunctural, thus reviving the founding hopes.

We do of course first need to consider the difficulty of conceptualizing statistical and accounting quantifications together, as they have old and disjointed histories and academies. These two professional worlds communicate little, if at all. As a result, sociologists specialized in one can hardly be specialized in the other. Alain Desrosières was first trained in

⁵ <http://erstu.ens-lyon.fr/spip.php?rubrique79>

statistics for the French statistics administration, and his interest in the probabilistic revolution project was obviously related to that history, which was also his own. It was only much later that he opened up multiple research fronts, which steered him away from statistics. He reacted very quickly to Isabelle Bruno's research on benchmarking (Bruno 2008) and placed much hope in the research programme she Emmanuel Didier launched soon afterwards (Bruno,Didier 2013). In recent years he also focused on budgetary policy (Lemoine 2011) and accounting policy (Eyraud 2012), constantly fascinated by new encounters that changed his horizon. Fundamentally, however, statistics remained the core of his framework of analysis, as attested by the last paper that he wrote, for a conference in Rome that he was too weak to attend (Desrosières 2012).

When I started writing the thesis for my *habilitation* a few months earlier, I imagined myself presenting the family of the sociology of quantification, naturally starting with the three pioneers: Porter, Desrosières and Espeland. First with Wendy Espeland, who honoured me by including me in her 2008 panorama (cf. *supra*), I sought to resituate her first article published in AOS within her research dynamic. Finding other AOS articles, I remembered Desrosières' suggestion that the history of this journal should be studied. So I pulled the AOS thread, that of its founder, Anthony Hopwood, of his American history, of his encounter with public policy analysis, of his return to the UK, of the establishment of his journal, of his sense of academic enterprise, and of his great curiosity (Bardet 2014).

Alain Desrosières, enthusiastic about the idea of this history, asked about its progress every week. In the autumn, when he was bed-ridden, he questioned me a last time, asking me to find "the reason" for this history, its title. The hypothesis of an accounting counter-revolution then occurred to me, probably linked to the conjunction of three dynamics that the history of AOS enabled me to envisage. The first was this hypothesis, which was based on my scrutiny of twenty years of issues of AOS (1976-1995) and accounting's gradual encroachment into organizations and public policy, which gathered momentum from the early 1970s in the USA. To that was added my discovery of accounting's resistance to the probabilistic revolution, which was inspired by Michael Power's early work published in AOS (cf. *supra*). Finally, going through AOS also enabled me to identify an episode in which, in the early 1990s, the editors of AOS for a while considered bringing together their sociology of accounting project with others in the sociology of statistics, notably that of Theodore Porter. Thus what emerged from my reading of AOS was paradoxical: accounting had conquered the world but at the same time had been antagonistic towards probabilistic measures. This in turn suggested the hypothesis of an accounting counter-revolution.

This hypothesis proposes that we conceptualise statistical and accounting quantifications not only in conjunction with each other but also dialectically. This would mean separating forms of quantification that are the result of simple counting from those that stem from counting but are then provided with the tools of statistical science, in other words, probabilistic measurements. A distinction such as this may enable progress to be made in the characterization of contemporary quantifications – perhaps those of neo-liberal governments. The hypothesis would need to be tested, and challenged. I would like to think that Alain Desrosières would have been very happy to participate in this endeavour which, for me, is in a way his own.

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