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Laurent Thévenot *

Abstract: *»Von der sozialen Kodierung zur economics of convention: Eine dreißigjährige Perspektive auf die Analyse der Investitionen in Qualifizierung und Quantifizierung«*. Among the contributions to the presently growing sociology of quantification, a long-standing French tradition has built on an approach to the "politics of statistics" based on the formatting practices of the transformative chain that leads to data. It resulted from statistician-economists who, in the critical spirit of the 1960s, were reflexive and largely open to the social sciences, and cooperated with historians and sociologists. The article offers a 30 years' perspective on the avenue of research that began with the article "*L'économie du codage social*" which goes from labour designation and qualification to ways of making occupation worthy. It leads to the broader notion of "investments in forms" which produce equivalence and economies of coordination. While making available in English large extracts of the original paper, the author adds comments from today perspective on the development of this trend which has fuelled both *On Justification* (co-authored with Luc Boltanski) and convention theory more generally.

Keywords: Conventions, quantification studies, symbolic forms, worth, economics of convention, economic sociology, pragmatic sociology, social categorization, science and technology studies, history of social sciences, sociology of work.

1. Introduction

In *Historical Social Research*'s Special Issue on "Conventions and Institutions from a Historical Perspective" edited by Rainer Diaz-Bone and Robert Salais (2011), Alain Desrosières noted that, among the six founders of the line of heterodox economic thinking known as the "economics of convention" (Dupuy et al. 1989), four had a strong background in statistics and had worked together at the *Institut national de la statistique et des études économiques* (the French National Institute of Statistics and Economic Studies, hereafter referred to as

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INSEE) (Desrosières 2011, 64).[1] Another strong link between them was their critical inclination, which was shaped by the political protest that erupted in the aftermath of the Algerian War (which ended in 1962) for the oldest among them and in May 1968 for the youngest. At the time, Marxism was a strong influence, and INSEE civil servants actively followed the various left-wing and radical-left political trends of the time. In addition to this critical stance and the Marxist insistence on practice, Pierre Bourdieu's critical sociology influenced their reflection on the practice of statistics, "planting some of the first seeds for the development of the economics of convention" (Desrosières 2011, 66). A key advance in the history of this development came from the analysis of "forms of equivalence," a preliminary stage in convention theory that was first published in "*L'économie du codage social*" (Thévenot 1983) and to which Desrosières referred in his article (Desrosières 2011, 68).[2] The translation of large extracts of my 1983 publication makes up the core of this article. The introductory first section is a comment on my 1983 paper, as the beginning of section 3, section 5.2 and the three first paragraphs of section 5.3.

Equivalence means "of equal value" and is therefore the basis of any (e)valuation, a domain meeting with increasing interest today. Thus, this article introduces a plurality of ways of assembling occupations that also makes them valuable. The equivalence form is a preliminary step before evaluation. It brings things or people together "on an equal footing" with each other, this phrase pointing to the practical and even bodily root of the operation of making equivalent. The approach I took to equivalence related the making of these forms to their practical implications. I conceived their costly elaboration as an investment to be taken into account among other fixed assets and considered their benefits for the practical and uncertain coordination of actions as a return on such an investment. This analysis was based on a combination of formerly disconnected disciplinary domains. Research in the economics and sociology of organization and labour combined with research in the sociology of social categorization, equivalence and quantification, thus contributing to the foundation of both "economics of convention" and "pragmatic sociology." Examining this movement more than thirty years later makes it possible to shed further light on it. In this article, I add commentaries on this history to my initial article on social coding – which is translated and abridged here but not rewritten (only the titles have been added) – in order to preserve its status as an archival document.[3]

[1] Apart from Jean-Pierre Dupuy (who rapidly departed from this line of research) and Olivier Favereau (who has had an enduring influence on it), François Eymard-Duvernay, André Orléan, Robert Salais and Laurent Thévenot met and worked together between the mid-1970s and the 1980s at INSEE on what eventually became this new orientation in research (Salais and Thévenot 1986).

[2] For an earlier formulation of the stakes behind classifications, see Thévenot (1979).

[3] In a recent article, Thomas Amossé revisited the history of socio-professional classification in France, carefully identifying the "traces of Bourdieusian sociology" as well as the way in

The first commentary concerns the continuity and shifts with regard to the treatment of symbolic forms in Pierre Bourdieu's sociology and by Émile Durkheim before him.[4] During a conference for an American audience, Bourdieu qualified his analysis of the power of symbolic forms as an extension of two syntheses (Bourdieu 1977). The first associated the "the neo-Kantian tradition" (Humboldt-Cassirer or, the American variant, Sapir-Whorf on language) with "the sociology of symbolic forms," for which Durkheim laid the foundations by treating them as "social forms" (Bourdieu 1977, 405-7). The second synthesis benefitted from the Marxist tradition, which related symbolic productions to the interests of the ruling class and thus to vested interests. It highlighted "the political role as an instrument of imposition or legitimation of domination" constituting "symbolic systems" (Bourdieu 1977, 408). It led Bourdieu to oppose both "the error of interactionism" and "the neo-phenomenological tradition" (Alfred Schütz and Peter Berger) as well as "certain forms of ethnomethodology" that only see forms of communication or a world as self-evident without distinguishing this political role from the "arbitrary (although not known as such) instruments of knowledge and expression (taxonomies) of social reality" (Bourdieu 1977, 409). The movement, of which the source is retraced here, effects a detour in relation to the shorter circuit or short circuit of the Bourdieusian model of the imposition of arbitrary forms. This detour inscribes these forms within the organization and, more specifically, "the regularization of established relationships" at its centre (cf. inf. Conclusion). By characterizing the forms that are "invested" according to their "length and domain of validity," one can explain the "economic articulation" between forms of a similar nature (cf. Conclusion), which subsequently leads to distinguishing between "modes of coordination." This analysis of forms of equivalence in action – or, more specifically, in the uncertain coordination of multiple actions – is the origin of the "pragmatic" epithet applied to this type of sociology and not without some confusion with American pragmatism, which did not initially inspire it. The shift away from Bourdieu's model of the simple imposition of a symbolic form does not, however, imply an abandonment of his critical perspective concerning the powers of domination. On the contrary, differentiating between the forms and the coordinations that these forms equip leads to broadening the analysis of the sources of domination and oppression, without remaining confined to the inequalities of the capitals held, be they diverse kinds (Thévenot 2011b, 2015b, 2015c).

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which it served as "a laboratory for pragmatic sociology" (Amossé 2013). See also his article in this HSR Special Issue.

4 Indeed, this movement did not begin in relationship to George Simmel, the preeminent sociologist of forms. On its confrontation with Simmel's formatting of the human, see Thévenot (2016).

2. From the "Discourse on the Method" to a Framework for Analysing the Conventions and Operations of Qualitative and Quantitative "Formatting"

Statistical "data," as the name – from the Latin *datum*, "something given" – indicates, is currently used as something that is a *given*, something accepted that is able to serve as the basis for reasoning. Recurring debates on the proper classificatory code sometimes have the merit of drawing attention to the prior conditions in which it was produced. Nonetheless, an examination that remains confined to the question of the accuracy of the code risks leading to a denunciation of a specific manipulation without shedding light on the characteristics of the coded object. Whether or not something is made a datum is the result of scientific or political struggles. Yet I would instead like to examine in this article what makes some data *ready for use* in both the arguments formulated by men and women in the sciences or of the state and more anonymous types of treatment, such as computing and the law. The medium for this reflection will be a study of the process of statistical codification of professional identity, begun during the preparatory work for creating the classification of professions and socio-professional categories in 1984 (Desrosières, Goy and Thévenot 1983).

Beyond making the task of data codification and the relationship between practices and rules more explicit, this study shall lead to an overall reflection on both the process of producing the classificatory code and its roles. Indeed, the coded form is not specific to statistics, being encountered in law, of course, as well as in regulatory texts in general, measures, instructions, objectives and so on. Instead of taking them for so many symbolic forms, I would like to consider them from an utterly materialist point of view in order to introduce them into an economic analysis. What purpose do these forms serve? How are they produced? The study presented here is the first step in a more general examination of *standard formatting* operations and their roles.[5] The description of the modes and roles of the coding of professional identity thus introduces a broader study of the *investment* [*immobilization*, in French, which means capital asset formation] *of forms* (laws, rules, instructions and so on) that are not generally taken into account in economic analysis. I adopt the position here of presenting this reflection on social coding by retracing the history of how the object of this study was constituted. The formatting procedures for objects, concepts and the categories that prepare the establishment of relationships between them are at the heart of the questions tackled in this article.

[5] The initial elements of this research, which was first conducted along with François Eymard-Duvernay, are presented in Eymard-Duvernay and Thévenot (1982, 1983).

The reform of the nomenclature of professions and socio-professional categories that INSEE began in 1978 was defined within the institution as an engineer's task, consisting of developing a new statistical tool to be used in the process of producing data on employment and social situations. In accordance with the engineer's working methods, there was an initial phase consisting of preliminary work on the conception of the new product. Since the early 1970s, an extensive amount of literature on occupational classification and destined to clarify the principles that were supposed to guide the establishment of the proper system of classification had been produced. In the light of a study on the analysis of occupational qualifications and classifications (*L'analyse des qualifications et les classifications d'emploi*) published in 1973 and based on the contributions of experts from a diverse range of French institutions involved in the classifying of occupations (INSEE, the *Ministère du Travail*, the *Centre d'Étude et de Recherche sur les Qualifications* and the *Centre d'Études de l'Emploi*), a definition of the taxonomist's task emerged that can be defined as follows: the taxonomist must *choose pertinent criteria* allowing *occupations* to be assembled into *homogenous* and *exclusive* categories. Even more than determining the proper criterion, it seems to me that the overall definition of the taxonomist's task posed a problem as it emerged in this *compendium* of rules on the taxonomical method. While the definition did indeed conform to the canonical presentation of classifications when taking into account the nature of the objects to be classified, each of the terms of this definition raised questions that had not been treated much in the quoted texts.

- Was the classifier in a position to choose the *definition* of the categories?
- Could these categories be *homogenous* and *exclusive* and be based on divisions according to *criteria* that the classifier deemed *pertinent*?
- What are the *objects classified* by the taxonomist and what is the *universe* that he or she intends to relate?

3. Making the Conventions of Qualification and Quantification Visible Using the History of Tools and the Sociology of Practices

Beyond the initial mention of the reflexive and critical effects of a historical approach, this section shows the connections that the research programme presented here established between three types of questions:

1) *Political and critical*: Animated by a critical inclination stemming from the political context of the time and the Marxist tradition, the researcher's survey shifted to the practices – disregarded or disqualified by engineers – of the lowest-placed personnel with regard to the division of labour and the (statistical) hierarchy of the production line. It uncovered skills and talents

that were previously unknown and which were distinct from the instructions and orders given by the equivalent of the bureau of methods.

2) *Methodological and epistemological:* By its objects and (ethnographically inspired) approach, the survey figured among the current types of opposition between the qualitative and the quantitative, or between statistics and monograph. Yet these oppositions systematically disqualified the second pole asymmetrically presented as "smaller" than the first. Strengthened by our contact with sociologists, we (notably Alain Desrosières, François Eymard-Duvernay, Robert Salais and myself) intended to raise this second pole to the same level as the first, drawing on knowledge in distinct disciplines.
3) *Analytical:* Beyond this methodological and disciplinary openness, I progressively sought to distinguish forms – or formats – of knowledge that led to different appreciations and which referred to diverse relationships to the world and others. Such a difference is sketched out in this section, using the vis-à-vis between an industrial model of statistical production and a familiar and customary model of knowledge and usage shared in the workshops. This type of difference is also present in the following section, "From formatting to appreciating: Three ways of increasing occupation." In the founding model for a pragmatic sociology of critique that I elaborated with Luc Boltanski (Boltanski and Thévenot 1987, 1991, 2006, 2007), these differences were related to economies of industrial and domestic "worth." The analysis of these valued relationships to the world was clarified and refined in the next stage of a sociology of engagement (Thévenot 2006). Undertaking surveys of firms, Eymard-Duvernay has brought to light the plurality of "quality conventions" (Eymard-Duvernay 1989). After a survey of the categorization of the unemployed, placed in perspective historically and comparatively (Salais, Baverez and Reynaud 1986), Robert Salais and Michael Storper developed a pluralistic approach to distinct "worlds of production" (Salais and Storper 1992; Storper and Salais 1997).

The first studies to respond to the questions expressed at the end of the previous section were undertaken in the spirit of preliminary reflections on the reform of the classification of activities and products published by Bernard Guibert, Jean Laganier and Michel Volle (1971).[6] Sketching out a chronology of industrial classifications since the eighteenth century was a method for questioning the idea of a classifier choosing the proper definitions for relating the social world. This historical perspective was utterly foreign to the statistician's state of mind, which was quicker to "invent" rather than archive, and it was interesting because it denaturalized classifications. Initial work on the classification of socio-professional categories was conducted from this point of view

[6] Michel Volle has since pursued the work on classification that began with this article (Volle 1982).

(Desrosières 1977). Brought to light were the connection between the "invention" of statistical categories of "*cadres*"[7] and "skilled workers" as well as the first collective agreements and labour regulations that began codifying the various categories of classification between 1936 and 1939 and which were extended and solidly established by the Parodi decrees in 1945. By showing that statistical classifications were historically marked representations of the social space, these historical studies suggested that such classifications could not be constructed from scratch. They called into question the earlier representation of the taxonomist choosing the pertinent criteria for the definition of occupations, a representation that constituted a theoretical definition of the taxonomist's task. The question of the forms reused in the task of classifying became central, and it seemed to me that the theoretical discourse had to be confronted with the practical conditions of the implementation of these classifications.

The fact that the reform of the classifications of professions and socio-professional categories was done at INSEE in a unit dedicated to both production *and* data analysis – and not in a unit that was autonomised at the time in order to specialize in classifications in general – undoubtedly influenced the choices surrounding this method. It would not have been possible to maintain the connection between the statistical study of professions – that of the persons surveyed and that of their classification – or to construct a theoretical framework integrating all of these questions, if the division of statistical work had been even more advanced in the central services of the directorate-general of INSEE. But the principal division that is effective separates this directorate-general from the regional establishments or the near-entirety of the work to produce data is realized in what, within INSEE, are called "workshops" for data-entry and coding. The strongest concentration of identical work stations are found there, and the work is organized so that it follows the rules of industrial production. Data collection is carried out by investigators who interview surveyed individuals, and the questionnaires carefully filled out by them are "coded" by "coders" and then keyboarded. These workshops are headed by supervisors who are themselves overseen by a production manager. At the directorate-general, a survey manager supervises the entire operation. The scale of professional statuses closely mirrors this flowchart.

The indigenous terms (these activities being referred to as *aller au charbon* – literally: "to go down the pit" –, according to the in-house jargon) show that the reference model during the phase when the classification is used is the industrial production process and not the principles of the taxonomic method as

[7] Cadre is difficult to translate into English, since, in addition to "manager" or "executive," it can also refer to a company's professional staff. For further discussion of the term, see Arthur Goldhammer's translation of Luc Boltanski's "Les cadres. La formation d'un groupe social" (Boltanski 1982) into English "The making of a class: cadres in French society" (Boltanski 1987). Goldhammer chooses not to provide a direct translation of cadre.

I have just explained. Nonetheless, both models of the activity of classifying are aligned on more than one point, the *definition* of these rubrics by distinctive criteria being perfectly adequate for the *formulation* of instructions ready to be executed. More generally, the technical definition of the different tasks implied in the process are observed to be tightly grouped, just like the habitus of the agents engaged in them (Bourdieu 1979). Thus, the formal rigour of the taxonomist, who is a formalizer by training, is closely articulated with the requirements of rigorous formulation adopted by administrative forms following the model of the law as well as with that of the computer programmer's formatting and the coder's formalism. The result of this adequacy, which (as is often forgotten) is a condition for the success of the division of labour, is that a very weak share of difficulties in applying the instructions are actually made explicit and, climbing back up the hierarchical levels, are liable to end up modifying this rule. Systematic measurements of the differences in coding, however, show that one in five cases cannot be coded with certainty by strictly applying the instructions.

The statistician who makes the effort to go out in the field, such as the production engineer, observes the failure of instructions and the resistance of the subject being treated. He or she knows that the production process does not quite conform to the coherent set of rules. In the workshops where the studies are coded, he or she can observe the use of handwritten lists circulated among the coders, a *customary* of sorts established at the workshop-level and destined to treat cases that are not foreseen in the instructions in a similar way, in addition to constituting a kind of flexible and local extension of the instructions. Even more informal but no less habitual are the verbal exchanges regarding difficult cases between the coders in the same workshop. Furthermore, these habits can only take shape due to the many years the coders have been in the same workshop, their familiarity with how the classifications are used and their close acquaintance with one another.

It is part of the statistician's task to evaluate the reliability of the data he or she produces and to elaborate verification procedures. Thus, by having a selection of questionnaires coded once more, this time independently, he or she can calculate the rate of error. The "errors in measurement" related to the collection or coding of data are therefore classically distinguished in the statistical manuals from the "random errors" resulting from the survey itself. Unlike the latter errors, errors in measurement are nonetheless not interpreted within a theoretical framework similar to the statistical theory of surveys.

On the other hand, information on the limits of the instructions circulate in the form of anecdotes relaying particularly amusing or difficult cases involving coding. It seemed to me that elements for advancing another model could be found using the unsuccessful examples of the model for the task. Research intended for a new system of classification has made it possible to develop a more systematic analysis than the transmission of anecdotes or the production of the average ratio of measurement errors. It explored two types of objects that seemed to me regrettably neglected or reduced in the theories on classification: the *raw material* on which the coders worked – in other words, the declarations made by those surveyed about their professional situation – and the *actual practices* whereby the coders had the habit of treating problematic cases when the instructions were insufficient.

4. New Perspectives on Social Identification Based on the Declared Occupation: A Job under what Title?[8]

It was thus difficult to fabricate an operational system of classification without familiarizing oneself with how this tool was actually used. Such a test of reality forced one to acknowledge that the raw material for classifying was made up of responses to the questionnaires (responses not only to closed questions, but also to open questions when it came to declaring job titles) and not "real" occupations. Unfortunately, when this condition of the classification work was not repressed in favour of a more noble definition of the "occupation" or the "occupational situation," it usually led to criticism involving the distortion of reality that resulted from mediation by the professional designations that were mentioned (d'Iribarne 1973; Vincent 1973). In the 1970s, debates surrounding the concept of qualification resulted in the emergence of this position with regard to ways of registering the professional situation, which were considered as so many perverted forms preventing access to the reality of occupations. In contrast, I made it a priority to carry out research on these designations and, more generally, on the recording or registration of the professional situation in the "statistical chain." This last notion indicates a view on data formation that sees its process as a production line, or assembly line (in the spirit of workplace studies) while specifically focusing on the changes and transformations of the format of information that this chain is made of.[9]

During the first stage of registration in the questionnaires, the most apparent causes of uncertainty were those that led to difficulties in the following stage (the "coding," meaning classifying in the coded rubric). Vague or apparently contradictory responses constituted a source of difficulty. The frequency of unsatisfactory responses, which can be reduced by the investigator's presence, is often only related to the formulation of the question, its logical coherency or

[8] In the 1983 text on social coding that serves as the basis for this article, this section as well as the two that follow are taken from internal publications at INSEE dating back to 1981 (Thévenot l981b, 1981c).

[9] The term statistical "registration" is here preferred to that of the "observation," "gathering" or "collection" of data because, borrowed from law, it brings out the characteristics of this operation – meaning the cost of this registration and its effects, or the report within an authoritative state.

the goodwill of the person surveyed. Due to the large number of these difficulties, a study has been conducted concerning the question about "familial assistants" (Huet 1981). The question involving the 1975 census returns, which was destined to construct the category of *familial assistant*, was the following: "Do you work, without being a salaried worker, by helping another person in his or her profession (for example, a member of your family)?" The activity of female farmers is an extreme case of non-"professionalized" work, which was particularly difficult for the statistician – who was supposed to track the limits of a given category in a hazy and shifting zone – to enter in the database, since the logical disconnections it imposes ("familial assistant" should be opposed to both "farmer" and "salaried farm workers") did not conform to the practice of the women surveyed. A return visit to these women showed that their responses depended not so much on the duration of the work on the farm (a variable that, in theory, constituted the best divisional criteria for the statistician) as on the type of farm and the configuration of the household. In the field of market gardening, women can perform the same tasks as their husband, and the statement "We share all the tasks" is frequently made. Women readily refer to themselves as "*farmers*" like their husbands. On small-scale polyculture farms, however, women execute both specific tasks (caring for animals and milking) and "stopgap" activities whereby they "lend a helping hand" but which are less valued than those performed by their husbands. They feel less than others that they are practicing a *profession* that, furthermore, their husbands only rarely acknowledge, even when they are very active on the farm and have had professional training (Huet 1981). The increase in the number of *farmers* and the reduction of *familial assistants* thus expresses less an increase in the amount of time devoted to agricultural work than it conveys the transformation of the wife's status on the farm. In an elderly couple of market gardeners, the husband – who filled out the whole family's census return – did not indicate a profession for his wife, who, when questioned about this, protested by declaring that she worked more than her husband (Huet 1981). Based on this example, one clearly sees the repercussions on the response of the identity of the person being questioned and especially his or her position in relation to the categories implemented, in which he or she is most often interested within his or her family or workplace. An ambiguous response can indicate how these systems of identification hesitate or contradict each other during a period of great change. In this case, the response was the result of the progressive substitution of a familial structure (two spouses working on the farm and both professing themselves farmers) by another (a head of the farm and family along with his wife, simultaneously "mother of the family" and "familial assistant").

The absence of responses or the form of the general responses conveys the survey's attitude towards questioning (Tabard 1975). It is well known that the INSEE questionnaires are often perceived as requests for information emanating from the administration. They are therefore attributed a legal value that they do not actually have, and the responses are modelled on those given to other administrations, which borrow from statutory categories.[10] The responses are also the result of the general attitude towards the questionnaire, which varies considerably according to the social background of those being surveyed. In the absence of a systematic study on this topic, my observations call into question the superficial opposition among those being surveyed between the careless ones and the conscientious ones and brings out the influence of a household's social configuration on the way of responding. Thus, in a household in which the husband was employed (at a supervisory level) by the Ministère de la Marine (Ministry of the Navy) and whose diploma of general education was – like his wife's – only a *certificat d'études primaires* (certificate of primary education), the woman (who was raising five children) expressed much goodwill by responding to the questions of the investigator who came to question her further. However, she was unable to specify the professional situation of her husband, who only mentioned the vague title "administrative agent" for the question about profession. She simply indicated that he took care of selling Breguet planes the year before. In a household composed of *cadres*, the woman, an assistant director at a classical music radio station, filled out all the questionnaires for the household in great detail and provided an excessive amount of information for a number of responses. She complacently explained that she had a great deal of trouble classifying herself in the survey grids, which "never fit her particular situation." Thus, holding a "*brevet de technicien des métiers de la musique*" (technician's certificate in musical careers) exactly corresponding to a *baccalauréat de technicien* (technician's *baccalauréat*) or a *brevet de technicien* (technician's certificate) for the question about diplomas, she deemed it necessary to add the complete title to the question *other diplomas* because this diploma seemed to her "something slightly separate." As for the man with whom she was living, whose occupation as a sound technician was of a lower status than hers, he elaborated a radically different point of view. He said that the questionnaires are made so that everyone can find their place in them and that one must adapt oneself to the proposed grids without modifying them – in other words, no one is unclassifiable. One can distinguish the completely diverging consequences to which these different attitudes to the questionnaire can lead in the coding phase that follows. In the first case (the administrative agent), the uncertainty will be great, the choice of the coder or the automatic rectifications operated will have a huge influence on the result. In the second case (the female assistant director), there is a wealth of information, but it somehow falls outside the questionnaire; only a qualified coder and manual procedures can make it possible to mobilize this information. In the third case (the sound technician), the person surveyed operated his own rectifications

[10] This mode of questioning has an even more noticeable effect when it is completely administrative. On the effects of the administrative questioning of individuals, see Merllié (1982).

and provided the statistician with raw material that conforms to expectations, without it being possible to assert whether it is of good quality (the statistical categories could have been misunderstood).

These few observations show that, when the declarations concerning a person's professional situation leave the statistician unsatisfied because they are lacunary or contradictory, they are not simply the result of how the question was formulated or the psychology of the person being surveyed. In order to interpret them, it is necessary to examine the relationship between the statistical categories and the legal categories or practices by which the individual is identified.

5. From Formatting to Appreciating: Three Ways of Making Occupation Worthy

Within the framework of the reform of the classifications, it seemed useful to systematically study the declarations of profession, their instability from one source to the next (the "fuzziness of declaration") for a given individual and the specific effect of the coders' interpretation (the "fuzziness of coding"), all using a large number of samples. The rubrics for which the designations are the least unstable (rate inferior or equal to 10%, when the average is 34%) are the following: artist (painter/sculptor) (0%), craftsman (0%), notary (0%), notary's clerk (7%), midwife (0%), physiotherapist (10%), social worker (10%), fisherman (0%) and commercial sailor (10%). Behind the composite appearance of this enumeration, it is possible to grasp what makes the name of a trade solid. One will seek to link this more or less great solidification to the differences in the relationship maintained by the person who practices it in this name, differences that clearly appear when one sketches the semantic field of the terms in use to designate the occupation (see Figure 1).

The first two activities are practiced like *arts* and the next two like *offices* or a *charge*.[11] These are two extreme cases of the fixity of the job title and its absolute fixing to the person who holds this title by way of *talent*, *purchase* or by *appointment*, terms designating an operation that seems to have led to this practically unchanging attachment (see the upper part of Figure 1). It is well known that the term "art" does not only designate the artist's activity, but also that of the doctor or the lawyer when one wants to indicate a "natural" ability that – if it can be highlighted thanks to an occupation – pertains to a "talent" or "gift" (that one "maintains" and does not "acquire" like an office or "learns" like a trade). The name of the trade merges with the proper name of the man or woman of art, who has managed to "make a name for himself or herself" (his or her signature, in the case of an artist). Office and ministry characterize situa-

[11] According to Old Regime traditions, notarial offices are sold and purchased.

tions in which the adherence of the person holding the title to his or her occupation is sanctioned by a legal act of acquiring the office or being appointed in a ministry. This adherence is as strong as in the precedent case, although it is not the art that merges with the man or woman of art in his or her signature but the officer who merges with his or her office – as manifested by the annexation of the name of the occupation to the name of the person who holds the title (Lieutenant T or Doctor Z). This legal state is quite favourable for reliable statistical registration and, by consolidating the name of the occupation it implies, explains the low variation in the titles declared.[12]

An intermediary place in this figure can be assigned to the *profession*. If one considers the medical professions, which are often made into models of their kind, one simultaneously observes a reference to the *state*, the *art* and the *trade*. The reference to the *state* is made by the rather strict regulation of access to the profession and the qualifying properties (academic title), of which the procedures for monitoring this are delegated to the educational system. The reference to *art* occurs through frequent allusions to talent and personal intuition in the clinical sense of the practitioner and which cannot be reduced to a university science. Finally, the reference to a *trade* is made because professional experience is readily emphasized along with study under those who have mastered the discipline. As for the specificity of the *profession*, it should undoubtedly be sought in the "autolegitimation" by peers and in the mechanisms associated with it, hence within the range of classifying systems that doctors have at their disposal for situating themselves (diploma, academic degree, hierarchical role and specialty) and from which originate the variable but precise responses. The last two activities mentioned because their designations are particularly stable – fisherman and commercial sailor – obviously do not pertain to the two types sketched out beforehand (*office* and *art*). They are *trades*, and the reference to this term indicates a whole series of oppositions to the precedent activities (cf. Figure 1). A *trade* is the result neither of a supposed talent nor a legally recognized quality – or state – but of an apprenticeship. This manual and imitative apprenticeship under people of the same trade is traditionally what makes a trade legitimate (neither legal nor remarkable) and lends stability to the name. The fisherman's trade, which is most frequently accessed through learning on the job, therefore has a stable name. More generally, the oldest trades of manual workers or craftsmen, which are practiced in tradi-

[12] In civil law, the state is constituted by all of the inherent human properties to which the law attaches legal effects (properties that, in legal terms, qualify it). In the same way, the qualification of manual workers, as it was defined in the collective agreements and remunerated with a salary, characterizes the only properties of a worker that are acknowledged as useful in the production process, even if other capacities can in fact be implemented. It is understandable that these qualified properties are the best suited for statistical data entry because they are at once monitored, homogenous (by way of the law) and known by the people being surveyed (because associated with economic sanctions).

tional sectors with production processes that have remained unchanged, have kept the same names: hairdressing (rate of instability: 16%), leatherworking (12-23%), food supply and building work (14-26%). Among the manual workers in food supply, there is a particularly marked contrast between the traditional qualified trades with strict designations (a less than 25% variation) – bakers-pastry chefs, butchers, cooks and kitchen assistants – and more recent industrial professions, the titles of which fluctuate much more, such as specialized dairy workers (42%) and manual workers in breweries and canneries (47%).

Figure 1: State, Art and Trade: Three Ways of Making One's Occupation Worthy

LEGAL QUALIFICATION
CHARGE, OFFICE, MINISTRY
filling an office
duties
obligatory

TALENT, GIFT
ART
devoting oneself to one's art
(quite an) art
disinterested

PROFESSION
Professing oneself a...

APPRENTICESHIP
TRADE
trade association
practising a trade
know-how, routine
useful

More generally, the occupations of which the denominations fluctuate the most (rate of instability higher than 60%) are the occupations of manual workers in sectors transforming raw materials (the steel industry and the transformation of raw metals, wood, glass and plastics), in which the production processes have profoundly changed. This has resulted in a drop in the individual and manual intervention of the worker and the definition of a trade being challenged due to the transference of a large part of the intervention to automated equipment. Continuous production processes in particular hinder any clear delineation of the attributions and the formation of a trade name but are more often defined by the phase of the process during which the worker intervenes ("supervisor of machines blending chemical products," "employee for blending chemical products").[13] The head of personnel in an establishment transforming plastics in the region of Nantes explained to me that, in his view, there is no longer any reason to refer to occupational designations in the classifications. Only two notions were important to him in the management of his workforce: the hierar-

[13] For concordant observations on the absence of a trade name among the specialized workers in large-scale industry in the region of Amiens, see Desrosières and Gollac (1982).

chical coefficient and the "injection" or "extrusion" workshop, where the employed individual was working.

5.1 The Management of Trade Names in Companies

The original article included a section on the challenge presented by professional designations and classifications in workforce management in companies. It is not translated here because it was partly included and therefore already published in English in an article that appeared the following year on "Investment in forms" (Thévenot 1984). In it, a director of human resources declassified a grid of occupations that conformed to that of the collective agreement in order to establish a new one that he had created himself. He abolished the link between the coefficients of salaries and a type of professional identity represented by trade names, of which the definition largely escaped him since it went beyond the scope of his company. He instituted a new mode of identification in terms of occupations entirely determined by his company, his workshops and his machines. By acting in this way, he contributed to reinforcing his position in relation to that of his competitors within the same field of activity – particularly in relation to the oldest artisanal pole, which he deemed archaic.

5.2 Political, Administrative and Legal Representations of Occupations

This section covers another aspect of the politics of forms and their investments. It deals with the direct intervention of professionals in socio-professional classification, showing the challenges that this classification constitutes. The comments and analysis are the result of my observations within the discussion group for the classification project with healthcare professionals, of which I was a member. Longer elaborations on this have subsequently been published in a chapter I wrote for the book on this classification (Desrosières and Thévenot 1988).

In Thomas Amossé's article ("Revisiting the History of Socio-Professional Classification in France"), which I have already mentioned, he continued to follow the changes in this classification in relation to employers' actions (Amossé 2013). They involve a group of employers who, during the second half of the 1990s, sought to overturn the Parodi categories and therefore the social boundaries that had existed since the end of the World War II. This is perfectly illustrated by the conclusions reached at a meeting held at INSEE on 24 February 2, 1999, with two representatives of the *Union des industries et des métiers de la métallurgie* (Union of Metalworking Industries and Trades, hereafter referred to as "UIMM") who suggested that the concept of cadres was "less and less adapted to the reality of the sectors of activity covered by the UIMM," recalling that "many have no managerial role," "the boundary with technicians [being] therefore not clear" (Amossé 2013, translation in the online English version of the *Annales*).

The section introduces a type of analysis subsequently developed in a "politics of statistics" that is understood not only as the direct intervention of actors according to their social and political affiliations, but through an analysis going back to the constitutive forms of social and political representation (Thévenot 1990). In history and in the sociology of sciences and techniques, a number of explanatory elements are called social, including social factors, social context, social conditions, social interest, social dispositions and so on. Using them as an outside fulcrum for revealing something poses a problem when the object being studied participates in the very construction of what is designated as social and political. In order to avoid this kind of circularity, it is necessary to elaborate a framework of analysis for such constructions, which are used to measure and questions politics (Thévenot 2011c).

In the preparatory work for the new classification, I had the chance to meet other types of people making professional identities, whose activity interfered with statistical registration. I was able to study in vivo the diverse interventions of professional groups seeking to modify the registration of their profession in the statistical classification.[14] The "classification struggles" (Bourdieu and Boltanski 1975) appeared with explicit clarity within dialogue groups formed for the occasion, in which conflicting definitions between professional groups were played out through the intermediary of their representatives. These interventions were not exerted through influence or manipulation, but by resorting to the most objectivized resources in the definition of professions and by the argument on the shifting of the frontiers between them. The regulatory texts, academic titles, instituted training, representative bodies, ethical codes and the names constituted in other classifications were so many established forms capable of being articulated along with the registration in the classification, the choice of criterion and the formulation of a definition of a rubric or its title. The representatives of the professions in turn expected a consolidation of these forms. The faint "fuzziness of coding" of the healthcare professions, which I have already mentioned, attests to the relatively strict articulation between statistical coding and social coding to which professional representatives apply themselves. However, as the statistical categories do not have the strictness of the law, there remains some room for manoeuvre in the precedent articulation that characterizes the places where the "social structure works" (Thévenot 1975), meaning where professional groups work to modify their identity when the evolution of their occupations lends itself to it. Because statistical classification cannot affect distinctions below a certain quantitative threshold, it assumes aggregations that can authorise this room for manoeuvre. Thus, the

[14] For some examples of these interventions, see Desrosieres, Goy and Thévenot (1983).

proposition to group together the paramedical professions of rehabilitation and therefore bring together physiotherapists (regulated profession) with psychomotility specialists (*psychorééducateurs*: unregulated profession) has met with the resistance of the former profession's representatives. The sole fact of being classified among the healthcare professions is a factor that can make it possible to gradually accede to more "instituted" forms. While, in an initial classification project, ambulance drivers had been classified along with other drivers of light vehicles because their activity was not very medical and furthermore frequently mixed (taxi-ambulance), the representative of the *Centre national de formation des personnels sanitaires des transports* (National Training Centre for Healthcare Transportation Personnel) advanced the fact that half the companies were "approved" and practiced "only one profession" and, on the other hand, this profession "was part of a *chain of care*." According to him, the existence of a healthcare diploma for ambulance drivers justified classifying them with auxiliary nurses. This proposition was fought by other professional representatives who in turn advanced the *duration* of the *training*, which only lasted three months for the drivers and 10.5 months for the auxiliary nurses.

I have favoured the term "registration" in order to stress that the collection of data – regardless of the justifications advanced – had by its very form been linked to the administrative and the legal, meaning with accountable, regulatory and legal forms. Work on the history of writing shows that these forms were originally indissociable from the first written texts of the third millennium BCE, having been accounts used for registering the Mesopotamian state's transactions (Goody 1979). These administrative lists were at once the first texts, the first classifications and the first statistics. In 1911, the first acts of sorting according to the variable profession were envisaged for registering legal acts – such as civil status, licences, bankruptcy, convictions and so on – according to the profession (Desrosières 1983). The need to extend and homogenize the professional grids established in large companies and bureaucratic organizations created by the extension of collective agreements in the 1930s laid the groundwork for post-war statistical classifications. Within this particular context, the category of "*cadre*" was invented (Boltanski 1982). Unlike the professional representatives who only had to take into account the limited space of a competing field of professions, the classifiers have to represent a national space in their classifications in a formally homogenous manner. Their work is therefore closely related to the modalities of political, administrative and legal representation of the social world. The 1947 "*Nomenclature des activités individuelles*" (Classification of Individual Activities) and its reworked editions up until the 1975 "*Code des Métiers*" (Classificatory Code of Trades) were strongly marked by corporatist representation by professional groups. Along with the creation of a *Commissariat au Plan* (Planning Commission) after the Liberation, other modes and instruments for representing and managing social relationships were put in place. In the early 1960s, the discourse on the shortage of manpower, elaborated during the period of post-war reconstruction, began to be put into the forms of state planning action, meaning the relationships between the objectives of public organisms and those of the social partners that were represented. The success of the concept of qualification was largely due to the fact that it was a good form for serving as an operator in these relationships between the need for qualified manpower advanced by the representatives of employers, the demands of the unions for salaried workers calling for standardized recognition of salaried workers' aptitudes in the conventional grids and the objectives to develop and promote training under national education. Professional groups were not represented in these places, and qualification – rather than trade – was a category on which the members of the commissions agreed, conflicts regarding its measurement being circumvented. Classifications that were more adapted than the "*Code des Métiers*" for evaluating qualification were thus put in place, among them the "*Nomenclature des emplois*" (Classification of Occupations), which was intended for surveys on companies. The "economy's recruitment needs" therefore justified a new classification by level of training. All of the classifications, including that of socio-professional categories, were replaced by a single *nomenclature des professions et catégories socioprofessionnelles* (or "PCS," classification of professions and socio-professional categories – see Desrosières and Thévenot 1979; Desrosières, Goy and Thévenot 1983).

6. Conclusion: Towards an Analysis of Investments in Form

While the task of the person making the classification, as presented by experts in the matter, appeared rigorously determined by some logical principles – and limited in the pertinent choice of classifying criteria – and the user's task hardly showed through the shadow of the instrument, the study of their actual activities has strongly challenged the formal definition of these tasks. By studying this production process, I observed the oft-noted gap between the instructions of the bureau of methods and the diverse operations that were really performed to do the work (Linhart 1978). This "room for manoeuvre" between the two allows salaried workers to develop habits that do not conform to the instructions. Nonetheless, it seems that by opposing rules and practices, instead of being interested in the economy of their transformation, one tends to reduce the degree of formalization and therefore the standardization of these practices to nothing. The forms of the practices that do not conform to the rules are themselves more or less strongly established, as it has been noted in the case of the written customary or the "personal instructions book" (Pinsky, Kandaroun and Lantin 1979). In the case of individual interpretations of ambiguous cases, it has been shown that the typical images of the rubrics used for assimilations were themselves formed in a relatively uniform manner by the representation work of social groups (Boltanski 1982; Desrosières, Goy and Thévenot 1983).

The precedent observations suggest another approach of the opposition between the abstraction of models of economic theory and the diversity of observations that sociology collects on individuals, or between the strictness of the prescription of tasks and the variety of the conditions in which they are exercised. The study of the production of social coding has indeed brought to light a multitude of intermediary forms between the regulated and the unformed; it has brought out the work that is necessary for establishing a code and indicated the benefits that could result from it. This study therefore encourages the consideration of these forms on the same level as so many possible accounts that can be characterized by the *cost of establishing them* and their *rigidness* or *inflexibility*, meaning their capacity to economically reproduce a situation and to have effects without human intervention. Within the context of a company, I have sought to confront the modalities whereby these different forms were constituted, the relationships they authorize and their usefulness: routine contact with a clientele, trademark, manufacturing norms, occupational classification, company agreement regarding timetables, orders regarding the duration of labour and so on (Eymard-Duvernay and Thévenot 1986 [1982]). Some of these *immobilizations of forms* are acquired not by a costly and instantaneous operation of establishment, but by the repetition over time, as in the case of a clientele. So they do not have the more constituted form allowing for equivalence on a market. This outline therefore makes it possible to re-examine neoclassical concepts of "specific capital" and "barrier to entry" (Eymard-Duvernay 1983). I have thus advanced a conceptualization of investment that, within the same model, takes into account the roles of the tool and the rules as well as their articulation (Eymard-Duvernay and Thévenot 1983).[15]

Investing is establishing, by way of a particular expenditure at a given moment or the cumulated effect over time of habit, the determined validity of a form over the duration and a domain of validity. All these detours in production ultimately make possible the economies that result, on the one hand, from part of the regulation of established relations and, on the other, thanks to the production of equivalence making the produced forms compatible with those of other relations.

[15] Unlike the text that was primarily written by Eymard-Duvernay (1983) and which I have already mentioned, this one was written by Thévenot and published the next year in an English version (Thévenot 1984), followed by a longer version in French (Thévenot 1986b).

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