RESEARCH ARTICLE

The tabulation of England: how the social world was brought in rows and columns

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This article chooses a historical approach to examine the influence of media practices in the constitution of sociological knowledge. Starting from the assumption that processes of technical mediation are more disputed and hence more visible in the beginnings of a science than in their state of maturity, it delves into the prehistory of sociological knowledge. From a genealogical viewpoint it becomes quite clear that the birth of a scientific knowledge about society in the seventeenth century is a birth from the spirit (or better: from the medium) of the table. Focusing on John Graunt's *Observations on the Bills of Mortality* (1662) which is not only a book about tables but itself an eminent example of tabular thinking, this text tries to explore the epistemological effects which are implied in the use of forms, lists, and tables. The problem addressed can be outlined by the question: What happens to the knowledge of the social world (and what happens to this world itself) when it is brought into a tabular grid?

Keywords: biopolitics; double-entry bookkeeping; forms; graphical media; ideology; John Graunt; lists; media reflection; political arithmetic; population control; tables; technologies of government; writing techniques

Sociology and its media

Not that sociologists were not interested in media. There exists a whole branch of their science called sociology of media. Social scientists even admit that they themselves might be affected by media. As Niklas Luhmann famously stated:

> Whatever we know about our society […] we know through the mass media […] This is also true of sociologists. […] Even when they use so-called empirical methods, they always already know what they know and what they don't know – from the mass media. (Luhmann 2000, 1)

Luhmann's wording can be regarded as symptomatic: When sociologists talk of media they always seem to refer to 'mass media'. One reason for this predilection may be that mass media can easily be seized as societal power systems and thus subjected to sociological analysis. So even the most critical descriptions of media systems, like Pierre Bourdieu's *On Television*, tend to ignore their technical aspects and to focus instead on the 'specific interests produced in and by [the journalistic] field' (Bourdieu 1998, 372). Reducing media effects to institutional power relations, sociologists can stay in their own domain, without having to consider the specific technical properties of the media apparatus.

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The same applies to the way in which sociology reflects on its own conditions of knowledge. While sociologists have continued to dwell on the social effects of mass media, they have made little effort to consider the specific media of social enquiry, such as the diverse techniques of retrieving, recording, transcribing, or processing empirical data as well as the various procedures of evaluation and interpretation of the thus constituted 'facts'. So, a recent study by Sebastian Ziegaus could claim to be the first to address 'the dependency of the social sciences on their media' (Ziegaus 2009). According to Ziegaus, sociologists find pleasure in demonstrating the social construction of virtually anything, but seem quite unwilling to investigate the construction of their own knowledge. While dismantling the practices of other sciences, social research seems to shun a 'self-reflexive turn' (Ziegaus 2009, 24) that would envisage the material and medial conditions of its own practices.

One might oppose that Ziegaus forgot about Bourdieu and his 'quasi-monomaniacal insistence on the necessity of the reflexive return' (Wacquant 1992, 42). Indeed Bourdieu's program of objectifying scientific objectification also includes the idea of a 'critical analysis of the social and technical conditions of the objectification' (Bourdieu 1990, 11). Focusing on the power implications of such apparently 'objective' research routines as the interview or the questionnaire, Bourdieu and his collaborators aimed at dismantling 'the illusion of the neutrality of techniques' (Bourdieu, Chamboredon, and Passeron 1991, 169). This sounds promising: One might expect some closer look at the technical preconditions of social research. But as in the case of television, Bourdieu is not interested in the materiality of the media or in the choices imposed by their technical structure. The 'neutrality' of techniques has to be doubted not because they in themselves would prefigure the sociological research process but because they are always embedded in some larger theoretical framework which determines their outcome. Thus, the critical gaze does not stay with the technical structure of the medium – it immediately shifts to the ideological framework that supposedly determines the use of the techniques.

For a long time the media reflection of sociology has been confined to the so-called review of methods, which considers the various techniques of social research with regard to their suitability for a specific task, similarly to craftsmen discussing the use of tools. Although there are promising signs of a new epistemological interest in the methods of social research (Hammer, Lomell, and Saetnan, 2010; Lury and Wakeford 2012), the sociological mainstream stills seems to stick to an instrumental view of the technological 'means', as it has been expressed some years ago at the occasion of a meeting in Berlin dedicated to the evaluation of research methods: 'Qualitative research in its core does not depend on technology. It is not dependent on technology, because *all* instruments play only a *subsidiary* role. The essential nature of qualitative research is technology-independent' (Schnettler 2009, s.p.).

It is tempting to answer such media oblivion using the coarsest media-theoretical argument at hand. This is still Marshall McLuhan's saying 'The medium is the message' – which also provides the title for this special issue of *Distinktion*. Undoubtedly, this phrase has had its merits. Perhaps it was only possible through a provocative generalization to draw the attention from media content to the form of medium. In order to address the media dependency of the social sciences, this article, however, will use a more cautious approach. As Bruno Latour has observed in *Drawing Things Together*, if you want to explain a certain epistemological situation it makes no sense bringing into the game all the media techniques that come to mind: 'Diagrams, lists, formulae, archives, engineering drawings, files, equations, dictionaries, collections, and so on, depending on the way they are put into focus, may explain almost everything or almost nothing' (Latour 1990, 23). Instead of assigning to writing techniques a general power over thinking, it will rather be

necessary to examine the conditions under which such an influence can occur with some probability: 'To get this focus, first we must consider in which situations we might expect changes in the writing and imaging procedures to make any difference at all in the way we argue, prove, and believe' (Latour 1990, 23).

Following Latour's advice, this article will not talk about social research in general or about media in general. Instead it will focus on a limited episode in the history of social science, and it will try to show how certain media techniques 'make a difference' in the formation of this specific kind of knowledge.

Time of the tables

Starting from the assumption that processes of technical mediation are more disputed and hence more visible in the beginnings of a science than in their state of maturity, this article will delve into the prehistory of sociological knowledge. The object is not arbitrarily chosen. The political arithmetic of the seventeenth century, represented by the names of John Graunt and William Petty, is commonly regarded as a founding scene of modern social sciences. Graunt and Petty who were among the first to promote and practice 'the systematic collection and study of social data' (Friendly 2008, 21) are reclaimed as forerunners by a whole bunch of sciences, from political economy to demography, and from statistics to modern social science (Lazarsfeld 1961, 277; Zeisel 1971, 114; Horváth 1978, 85–6).

Tracing back sociological knowledge to the governmental techniques of the seventeenth century is not a new idea at all. Various studies on the history of statistics have attributed to political arithmetic a crucial role in the emergence of a new, quantitative conception of society. Several authors (Desrosières 1998; Hacking 2002; 2006; Katzmair 2000; Porter 1995) have pointed out that the methods of measuring, calculating, and classifying the social invented in the seventeenth century did not just give another, more precise description of the reality 'out there' but that they themselves were important agents in the construction of this reality. Alain Desrosières's *Politics of Large Numbers* started from the assumption that

> [S]tatistical tools allow the discovery or creation of entities that support our descriptions of the world and the way we act on it. Of these objects, we may say both that they are real and that they have been constructed. (Desrosières 1998, 3)

As Desrosières brought to mind, this also applies to the objects of scientific research. Durkheim's methodological claim to treat 'social facts' as things thus revealed an additional meaning which obviously had escaped Durkheim himself: The construction of the 'fait social' had to be rooted in the practices of statistical data collection. Inevitably 'social facts […] become things for everyone who uses statistical techniques' (Desrosières 1998, 2).

So there undoubtedly exists an interesting constructivist approach to statistical or classificatory (cf. Bowker and Star 2000) knowledge which seems to be highly relevant also for the self-reflection of social research. If one likes to apply a very general definition of media – a medium is everything that mediates – one could say that such historical-genealogical accounts already constitute a kind of media theory of social knowledge. Statistics as a whole could be regarded as medium of social research, and it would be quite evident that the outcome of the research process ('the message') will always depend on the configuration of the cognitive grid provided by statistics. What can a historical science of media, operating with a somewhat narrower idea of what media are, add to this picture? Perhaps nothing more than a specific interest in the material instances becoming operative

in the process of scientific reasoning, and a certain lust for the details of their technical functioning.

Focusing on the demographical work of John Graunt, this article will mainly deal with one specific type of media, with lists and tables. Depending on the perspective chosen they might also be called cultural techniques, scripting devices, ordering apparatuses, or diagrammatic forms. 'Medium' is preferred here for the very reason of its indeterminacy: addressing lists and tables as 'media' allows describing them in their material, functional, and praxeological aspects without necessarily privileging one perspective.

Although making lists and drawing tables constitutes an activity of basic importance to many sciences, up to now there has been no such thing as a 'critique of tabular reason'. Only British anthropologist Jack Goody has made a larger attempt to question the specific epistemic effects produced by graphic representational techniques such as lists, tables, and formulas. In his 1977 book *The Domestication of the Savage Mind* he pointed out that the neatly arranged mythological systems and classificatory schemes elaborated by structural anthropologists are more likely to be the products of the tabular mind of the researchers than the offspring of the oral cultures they explore. According to Goody,

> the basic trouble lies in the attempt to apply a simple graphic device (the table) to the study of 'symbols' in an oral culture. […]. For this simplification produces a superficial order that reflects the structure of a matrix more obviously than the structure of the (or a) human mind […]. (Goody 1977, 67–8)

This suspicion against tabular reason is of greatest interest for the problems addressed in the present essay. Far from being a neutral and innocent 'instrument' of research, the table acts as an ideological apparatus that subsumes any and every fact of the world to the form of a binary classification scheme. In this case the medium of research can actually be regarded as the 'message': Societies appear as structured because ethnologists employ a writing technique capable of processing knowledge only as a structured knowledge.

An epistemological critique of the table as the one Goody has realized for anthropology has not been tackled in sociology. This article tries to give some historical-genealogical hints to such a critique.

Checking the bills: John Graunt's bookkeeping of the social

In the beginning there was the table. This is literally true for John Graunt's *Natural and Political Observations upon the Bills of Mortality*, which today are considered as 'the seminal work which effectively founded […] social statistics and historical demography' (Slack 2004, 42). When Graunt presented his book in 1662 he was proudly aware of 'doing something new' (Graunt 1899, 95), never touched by 'any of the Learned Pens' (Graunt 1899, 334), far away from 'any thing like what is already in other Books' (Graunt 1899, 320). Graunt's discovery consisted in taking tables seriously, of conceiving them as both an object and a means of scientific discovery.

In seventeenth-century London, the Bills of Mortality – weekly published accounts of all 'those who have died in the citie of London' – served as a rapid alert system against the plague. As Graunt complains, even those of his fellow citizens 'who constantly took in the weekly *Bills of Mortality*, made little other use of them, than to […] take the same as a *Text* to talk upon in the next Company' or 'in the Plague-time', to see 'how the Sickness increased, or decreased, that so the Rich might judge of the necessity of their removal' (Graunt 1899, 333). Graunt's scientific revolution, as one might call it, starts with the

The Diseases and Casualties this Week.

Disease	Count
Imposthume	11
Infants	16
Killed by a fall from the Belfrey at Alhallows the Great	1
Kingsevil	2
Lethargy	1
Palsie	1
Plague	7165
Rickets	17
Rising of the Lights	11
Scowring	5
Scurvy	2
Spleen	1
Spotted Feaver	101
Stilborn	17
Stone	2
Stopping of the stomach	9
Strangury	1
Suddenly	1
Surfeit	49
Teeth	121
Thrush	5
Timpany	1
Tissick	11
Vomiting	3
Winde	3
Wormes	15

Disease	Count
Abortive	5
Aged	43
Ague	2
Apoplexie	1
Bleeding	2
Burnt in his Bed by a Candle at St. Giles Cripplegate	1
Canker	1
Childbed	42
Chrisomes	18
Consumption	134
Convulsion	64
Cough	2
Dropsie	33
Feaver	309
Flox and Small-pox	5
Frighted	3
Gowt	1
Grief	3
Griping in the Guts	51
Jaundies	5

Christned	Males — 95		Buried	Males — 4095	
	Females — 81			Females — 4202	Plague — 7165
	In all — 176			In all — 8297	

Increased in the Burials this Week———————— 607
Parishes clear of the Plague———— 4   Parishes Infected ————— 126

The Assize of Bread set forth by Order of the Lord Maior and Court of Aldermen, A penny Wheaten Loaf to contain Nine Ounces and a half, and three half-penny White Loaves the like weight.

Figure 1. Bill of Mortality from September 1665, during the Great Plague (Source: Wikimedia Commons).

intuition that 'these neglected Papers' (Graunt 1899, 334), 'these poor despised Bills of Mortality' (Graunt 1899, 395) might be destined 'for other, and greater uses, than those above-mentioned' (Graunt 1899, 333). To those who can read them, the unimpressive lists of dead Londoners will reveal their inherent wealth: They constitute a new kind of resource, a treasure of information.

But Graunt's book did not only discover lists and tables as objects of scientific study, it also promoted a new, tabular mode of representation. 'Tedious Narrations' (Graunt 1899, 320) and 'voluminous Transcriptions' (Graunt 1899, 395) were to be overcome by the simple and evident graphical display of facts and figures. So Graunt could not only claim a revolution in content but also in form. No matter what insights his calculations would bring forth, he would already have 'succeeded therein, as to have reduced several great confused Volumes into a few perspicuous Tables' (Graunt 1899, 320). With Graunt the tabular format, which had already proved its skills in the exploration of nature, begins to conquer the examination of the Body Politick.

The givenness of the given: Graunt's data critique

There are two discursive references in Graunt's *Observations* which mark their position in the scientific context of the time. For one, the work is dedicated to Sir Robert Moray, President of the Royal Society; on the other hand, Graunt presents it as a piece of 'Natural History', written in the spirit of Francis Bacon. So one might expect some kind of empirical investigation. But as the very title of the book makes clear, it is not a direct observation of things, but an observation of lists and tables ('Bills'), i.e. an observation of former observations. Graunt's work does not consist in counting; it rather consists in the evaluation of earlier countings. Thus his method can perhaps best be described as 'data criticism'. Graunt sheds new light on old figures. The interpretation of numbers as 'signs' gives way to a systematic 'look on data' (Campe 2001, 522). The aspect of examination is essential: In order to work as 'data' (lat. 'datum', 'data') they must *not* simply be taken as 'given'. It rather has to be asked how, by whom, and by what means they were given.

This epistemological question of the givenness of numbers makes up the first part of Graunt's book. In detail Graunt reconstructs the circumstances under which the data of the Bills of Mortality were produced. His main interest is of course to ensure the 'reliability' of the figures and the 'validity' of the resulting conclusions (Endres 1985, 248); so, he is doing what we would call 'methodological critique'. But unlike today's validation procedures Graunt's *Observations* prove to be extremely aware of the technical and medial infrastructures that constitute the knowledge contained in the Bills of Mortality.

Following Graunt's descriptions, the fabrication of the Bills of Mortality can be understood as a series of medial transfers. Each step of translation results in a new arrangement of data and thus produces new evidence. It all starts with the dilemma of the coroners, the so-called 'searchers', who had to simplify the often not very clear result of their inspection, to a fixed entry in a list of possible causes of death. A further step of transmission was constituted by the paperwork of the parish clerks who, from the incoming certificates, had to compile a 'a true note of all the Christening and burials in their several parishes the week before', including an indication 'of what disease every particular partie in their Bill menconed dyed' (G[uildhall Library], MS. 4891, cit. Robertson 1996, 332). This act of summing up and standardizing prepared the next stage: Every Tuesday night the parish clerks had to deliver their parochial lists at the central Guild Hall of the parish clerks (Christie 1893, 139). The following morning the clerk of the Company took over, reducing the many local lists to one central list: 'On Wednesday the general Accompt is made up and printed' (Graunt 1899, 346). Also the timetable for the dissemination of the Bills was strictly regulated: On Thursday morning, 'before eight' the Lord Mayor was provided with the latest numbers, later, by ten o'clock, 'copies were delivered to the Parish Clerks for sale in their respective parishes' (Christie 1893, 139). Finally in December of each year the weekly registers were combined to a total directory – a data compression which

again produced something new: an image of a whole year to be compared with the image of another year.

Graunt's *Observations* thus follows a chain of media transmissions; it describes what happens when observations are registered in forms, when forms are converted to lists, and when lists are compiled to tables.

As the forms which were used for the first data capture were not archived, their mediality can only be reconstructed indirectly. Apparently there has been a list of fixed wordings for the causes of death, including evasive formulas such as 'sudden death' (Graunt 1899, 348). But the occurrence of singular and curious cases such as 'Fainted in a bath' (Graunt 1662, table after p. 71) or 'Planet strucken' (Graunt 1899, 348) does suggest that free entries were possible as well. For those who, like Graunt, were trying to use the so-kept lists as sources for social statistics, the inconsistency of data collection represented an urgent problem. In principle, any transfer of an empirical observation into a system of classification implies a precarious reduction of information: A complex agglomeration of perceptual events must be subsumed under a limited number of defined terms, and it depends on the discernment of the classifying authority (here: the 'searchers') under which heading a phenomenon is recorded. The inevitable moment of arbitrariness lying in the collection of data is further enhanced by the inaccurate, everyday language formulation of the classification criteria. Before Graunt could evaluate his tables, he had first to engage in hermeneutics and wonder 'what the searchers mean by Infants': Does the term indicate 'Children that cannot speak' or does it refer to 'Children under two or three years old' (Graunt 1899, 348)? Such cases of 'irregular classification' (Kreager

Figure 2. *A generall or great bill for this yeere*, 1625 (Source: Early English Books Online [EEBO]).

Figure 3. *A true Relation of five modern Plagues or Visitations in London*, 1636; detail (Source: EEBO).

1988, 131) constituted a severe offense to the classical order of science. Lacking a rational order of words, one had to make do either with 'names of things which do not exist' or with 'names of things which exist, but yet [are] confused and ill-defined' (Bacon, *Novum Organon*, cit. Kreager 1988, 131). Obviously 'a little standardization' (McCormick 2009, 134) in the collection of data would have considerably increased the value of information. Graunt himself was quite aware 'that exercises in enumeration require some *agreed* classificatory schema' (Endres 1985, 248). His *Observations* can be looked upon as an incitement to such a new, scientific way of data retrieval, which, to some degree, even proved to be successful. As Robertson states, 'after Graunt's pamphlet the *Bills* themselves were increasingly held to higher standards' (Robertson 1996, 347). But the adaptation of counting practices to the new statistical needs had its limits, dictated by traditional reservations. So when a proposal was made to enlarge the pool of social data by extending the countings to the 'extra-parochial burials and dissenters' graveyards' it simply 'died in committee' (Robertson 1996, 348).

The next step in the creation of the Bills of Mortality was the transfer from forms to lists. As historians of writing have shown, the practice of listing for administrative purposes must be regarded as the oldest form of recording at all. List-like representations that capture the things of this world in their number are known since the fifth millennium BC; and since then people have not ceased to make directories of things, animals, and human beings. In the early modern period this diagrammatic form of writing experienced a real boom – a fact which, according to Walter Ong, has to do above all with the spread of the printing press:

> The extensive use of lists and particularly of charts so commonplace in our high- technology cultures is a result not simply of writing, but of the deep interiorization of print, which implements the use of fixed diagrammatic word-charts and other informational uses of neutral space far beyond anything feasible in any writing culture. (Ong 2002, 98)

The epistemic virtues of the list result from making the most of the two-dimensional writing surface. In contrast to the linear sequence of the spoken word or the written text, the planar arrangement opens up the possibility to capture a large number of entries at a single glance:

> In a one-dimensional linear phonic medium you would lose the overview with a higher number of entries n. In the two-dimensional graphic medium, however, the overview remains preserved and so there are virtually no limits to the production of lists. (Koch 1997, 70–1)

The advantage of relative unity (the definition of a scheme of addressing in rows and columns) is combined here with the advantage of relative openness. So there is not only an 'infinity of lists' (Eco 2009), but every list is infinite in itself. To each item can still be added another. But the decisive achievement of the list does not so much lie in the collection of data, but in the possibility of processing them further. Data collected in rows and columns have the advantage that they 'can be reanalysed and reformulated' (Goody 1977, 100); 'they can be reshuffled and recombined' (Latour 1990, 45). The graphic format of the list does not only allow you to run back and forth between the rows and columns, thus quickly accessing the desired information, it also offers the possibility arbitrarily to extract and recombine the data entries. In other words, from existing lists, new lists can be compiled, ones which organize their material according to new criteria.

This step can also be described as a transition from the list to the table. The list still obeys the requirements of the recording; it still bears witness to the empirical circumstances of the data acquisition – so for example the chronological order of registration is still present in the topological order of the list entries. With the transfer to a table, this memento of empirical origin is stripped off; it is only in abstract, naked form that the data can enter the table.

Such a 'stripping off' can be observed in the transition from the simple list which records the 'christenings and burials' of one single parish to the weekly Bill of Mortality which synthesizes the data of all municipalities. In the first document the dead are still listed as individual cases, each with name, address, and cause of death. The second document no longer knows names and addresses, and the individual cases occur only as a number or a fraction of a total. The dead of a parish that could previously claim a whole paper sheet for themselves now have to fit into a table row. The cause of death that had been previously noted for each individual death is now marked by the entry of a number in a column.

With the transition to a table the data material goes through a further selection and classification. Distinguishing criteria, which played a crucial role in the process of data retrieval, may now be deleted as irrelevant. Conversely, a table can introduce previously unconsolidated distinctions in order to rearrange the data.

Similar to the list, the table calls for a selective, disjointed reading. Usually, the printed Bills of Mortality not only comprised tables. Also pictures and emblematic depictions, as well as short pieces of text, were spread over the page. In plague years one could find folk recipes and prayers that should help against the contagion. Nobody, however, will have 'read' the columns of numbers in their entirety. As Graunt reports, the Londoners just used 'to look at the foot, how the *Burials* increased, or decreased; and, among the

Casualties, what had happened rare, and extraordinary in the week current' (Graunt 1899, 333). Graunt's description indicates to what extent the reading of a table differs from the reading of a list. If you jump in a list – for example, a death register – from line to line, or from page to page, it usually happens because you are looking for something specific, for example for the record of a particular person. A look at the table on the other hand is not directed to the individual case. It can be better described as a scanning of a surface, a gaze which glides over the rows and columns, in search of table-specific enunciations. So, usually it stays with the footers of the columns where the sums are recorded. Or it fixes on the only spectacular events that a tabular space has to offer, namely quantitative deviations, disproportional increases or decreases which can be perceived as 'rare, and extraordinary' (Graunt 1899, 333).

As lists can be put into tables, new tables can be compiled from old tables. As for the Bills of Mortality, this happens every year on 'the Thursday before Christmas-day', when 'a general Accompt of the whole Year' (Graunt 1899, 336) is published by the company of parish clerks. While, as Graunt notes, 'the Original Entries in the Hall-books' always followed the same schema, there are considerable changes in the categorical system and in the layout of the 'general yearly Bills' (Graunt 1899, 346). The effect of evidence, produced by the annual compilation, the idea of a general overview is inseparable from a process of reduction, a condensation of information, which has always something arbitrary: 'The complexity of these tables lessens as the range of material widens. This lessening of complexity is accompanied by the attribution of increasing generality to the results' (Goody 1977, 67). So one might say that the yearly Bills contain at the same time less and more information than the weekly Bills: less, because in order to enter the restricted space of the annual Bill a lot of distinctions contained in the weekly bills have to be omitted; in another respect they contain more knowledge, namely a view of the whole and of its development in time which was not present in the weekly data.

Further tabulations

So much for Graunt's reconstruction of the medial procedures, which were involved in the fabrication of the Bills of Mortality. But what does Graunt himself do with the tables whose creation he has so meticulously described? He adheres to the possibility of further tabulating that which already has been tabulated. As he himself says, his method is 'to look out all the Bills I could' and then reduce them 'into Tables […] so as to have a view of the whole together, in order to the more ready comparing of one Year, Season, Parish, or other Division of the City, with another' (Graunt 1899, 333). The first and most important effect of the tabulation is to create an overview. In this respect Graunt just follows the advice given in Bacon's *New Organon*:

> A natural and experimental history is so diverse and disconnected that it confounds and confuses the understanding unless it is stopped short, and presented in an appropriate order. So tables must be drawn up and a coordination of instances made, in such a way and with such organization that the mind may be able to act upon them. (Bacon [1620] 2000, 109)

But the ultimate reason to address the table as a 'medium' is not that it would represent more clearly and distinctly what we already knew or could have learned otherwise. Rather, it can be said that there is a specific tabular knowledge, that there are objects and evidences that only come into the world by the means of the table and of tabular practices. The Tableau enables 'things' to appear which were not visible before because they were produced in

the very act of the tabular abstraction. While a single list containing 'The Number of all those that hath dyed in the Citie of London' only reflects the suchness of things, it is possible to discover an unexpected regularity in these supposedly contingent events by setting in comparison several series of them.

Graunt's major epistemological trick can be described as a transition from numbers to numerical relationships. If you consider numbers not only in the limited spatial and temporal context in which they were obtained, but put them in connection with numbers from another series, one can obtain completely new evidence. The figures then do not just testify the occurrence of certain events at a certain time. Instead they allow recognizable patterns, series, trends to emerge – and thus nourish the hope that human affairs might one day be as certain and predictable as the movement of the planets. In Graunt's *Observations*, this new procedure is exercised with an almost playful joy of discovery. As the author admits, 'there is much pleasure in deducing so many abstruse and unexpected inferences out of these poor despised Bills of Mortality' (Graunt 1899, 395).

The simplest way to make such happy deductions is to confer simultaneous data obtained from different backgrounds. This allows one to determine the proportions within a given or assumed numerical whole. So, while his contemporaries were convinced 'that the population ratio was around 3 females to 1 male', Graunt could prove by numbers 'that the exact ratio is 16 males to 15 females' (Endres 1985, 248). A second dimension is obtained if the proportional ratios are considered over time. Comparing for example the distribution of causes of death over several years or decades, it can be noted that – apart from the epidemical diseases, which are characterized by highly fluctuating numbers – there are specific causes of death, which 'bear a constant proportion unto the whole number of Burials' (Graunt 1899, 352) including not only chronic illnesses and accidents, but, for example, suicides.

Such recurring proportions can be regarded as solid measures in the flow of data; they can be used as a kind of gauge to assess other variables. At the same time, the tabular synopsis opens up the possibility of describing the temporal changes in their regularity. While a short-term consideration of the death rate will only be able to observe a random fluctuation, in the survey of a longer period it will be possible to perceive stable patterns and long-term trends.

Certainly, terms such as 'improvement of trade', 'growth of wealth', 'increase of people', or 'advancement of learning' – which marked the political discourse of the seventeenth century – have not only come into the world through the techniques of tabular representation. Nevertheless, it was the medium of the table which lent a special kind of persuasiveness, of visual evidence to the slogans of 'progress', proclaimed by the new, bourgeois 'art of government'.

Things such as 'growth' or 'welfare', which remain invisible in ordinary life, are made visible through tables. Thus, later political arithmetic, defining itself as 'the Art of Reasoning, by figures, upon Things Relating to Government' (Davenant 1698, 2), will be essentially based on the representational power of the table. To convince their countrymen 'that the trade and wealth of England did mightily advance' (Gregory King, cit. Slack 2004, 67) or that England had become 'the principal nation for trade in the whole world' (Davenant cit. Slack 2004, 67), men like Gregory King and Charles Davenant did not have to make up big words, they could just let their tables speak. In today's more sophisticated methods of data visualization (Hald 2003, 89) this ideological effect of evidence is still enhanced. The decisive step of abstraction, however, had already been done with the method of tabular reduction. As might be shown, conceptual entities such as 'population',

'class', or 'economy' owe their existence primarily to the techniques of tabulation and classification used by Graunt and his contemporaries.

A shopkeeper's dream: the balance of life and death

It is not superfluous to note that John Graunt was a merchant by profession, a well-off haberdasher and a warden of the Drapers' Company (Hull 1896, 106; Glass 1964, 63–4). Firstly, this makes his interest in the Bills of Mortality plausible. Graunt himself notes that tradesmen were accustomed to read the Bills conjecturing from them 'what doings they were like to have in their respective dealings' (Graunt 1899, 333; cf. Kreager 1988, 129). Secondly, Graunt's profession may also explain his reluctance against 'idle, and useless Speculations' and his inclination to knowledge which bears 'Real Fruit' (Graunt 1899, 334). Graunt leaves no doubt wherein this benefit consists. His science is all about finding a 'more certain and regular' mode of 'Trade and Government' (Graunt 1899, 396), a new way of conceiving and managing the social. The new 'Art of Governing' or 'true Politicks' (Graunt 1899, 395) which Graunt – 'with all humble submission' (Graunt 1899, 320) – recommends to those in power, will no longer rely on mere guessing and trying. It will be based on a precise and continuous knowledge of the social forces and resources, on a thorough understanding of all 'the Land, and the hands of the Territory' (Graunt 1899, 395). This may be called a policy of accuracy in two respects. Initially, it is about counting precisely: 'It is no less Necessary to know how many People there be of each Sex, State, Age, Religion, Trade, Rank, or Degree' (Graunt 1899, 396). But counting according to traditional rules is not enough. The decisive step is to make new distinctions, to define new criteria of counting that run contrary to the traditional divisions and will replace them in the course of time. So, a completely new picture of the social emerges if people are no longer arranged according to their 'Trade, Rank, or Degree', but classified according to their economic usefulness, so that for example the rich may be sorted according to their tax contribution and the poor according to their ability to work.

It is important to note that this new, 'quantitative' conception of the social is not just an ideological 'reflection' of the transition from the traditional estates system to the new, capitalist class society. Instead it is quantification itself that transforms society. And it is the table which can be regarded as its most efficient medium. The table does not just reflect what is 'out there' in the social. Instead it introduces and enforces the criteria (such as wealth or productivity) which will determine the new social hierarchy. As an agency of distinction and distribution it plays an important role in the repartition of the social.

Graunt himself points to the special configuration that links the medium of the table with the question of the political order. In his dedication to Sir Robert Moray, he speaks of 'my shop Arithmetick' (Graunt 1899, 323), on which all his calculations were based. This is not simply a coquetry with his status as an 'amateur scientist' (Last 2001, 273). Rather it is a clear indication as to where to look for the origins of social statistics and demography, namely in the media practices of 'merchant bookkeeping' (Kreager 1988, 130). As Philip Kreager has shown, Graunt's method of tabulation can be traced back to the technique of double-entry bookkeeping which already had been practiced in the fifteenth century by the financial authorities of Genoa and Venice and became known throughout Europe by Luca Pacioli's *Summa de Arithmetica* (1494). The procedure, which was common in England at least since the middle of the sixteenth century (cf. Yamey, Edey, and Thomson 1982), provided that every transaction, performed by a merchant, was

entered twice in a ledger, in parallel columns, one entry showing the changing balance of debt, and the other of credit. The comparison or proportion of the two columns relative to starting and subsequent balances provided the merchant with an immediate evaluation of the current and past status of the account, relative to others. This made it possible to spot accounting errors, to isolate losses, and to distinguish real profits from diverse fluctuations in income. (Kreager 1988, 135)

In her *History of the Modern Fact* Mary Poovey has ascribed to this accounting technique a crucial role in the formation of scientific methodology. As a kind of self-checking system, double-entry bookkeeping not only 'became a display of mercantile virtue' and a model of moral self-regulation (Poovey 1998, xvi), it also served as a 'model for the kind of "uninterested" knowledge that natural philosophers wanted to offer about the natural world' (Poovey 1998, 11).

Crucial for this comprehensive success is the 'effect of accuracy' (Poovey 1998, 58), created by the formal correctness of the writing procedure: 'Even though the accuracy of the initial records could not be verified, the formal precision of the books made the records function as if they were not only precise but accurate as well' (Poovey 1998, 64). Whatever ran through the filter of tabular double-check, could pass for 'precise' and 'accurate', even if the empirical basis was by no means assured. For a merchant, double-entry bookkeeping did not only have the operational function to facilitate the control of the current business. Equally important was the 'rhetorical function' (Poovey 1998, 64), namely to suggest a complete transparency of the whole business.

Theoretically, double-entry bookkeeping would at any moment allow for an exact 'valuation of a merchant's total worth'. In practice, however, such a 'calculation was virtually never carried out' (Kreager 1988, 135–6). If, thus, the idea of 'total disclosure was only a fiction' (cf. Poovey 1998, 64), it was an extremely powerful fiction. There was a kind of ideological surplus in the technique of doubly-entry bookkeeping which facilitated its transfer to other realms, not only to science but also to politics. Simon Stevin's *Livre de Compte* from 1608 recommended a government of the state following the example of double-entry bookkeeping. The best ruler was the one who from his books could at any time tell the state of the entire kingdom like a merchant could read from his books the state of his affairs (Siegert 2003, 51).

Thus, Graunt's mercantile approach to Government, his idea of a policy of 'Peace and Plenty' (Graunt 1899, 395), which would manage the state as a merchant runs his business, was not new. Also, he was not the first who attempted to transfer the effects of evidence inherent in tabular representation to the field of political analysis. New, however, is his understanding of what is or should be the primary object of the so-defined enterprise State. According to Graunt the economy of the State is not so much an economy of things, but of people. So he designs the household of the State as a population household.

One could, of course, argue against the term 'population' that Graunt himself did not use it. In fact, in the seventeenth century the word 'population' does rarely occur, and, if so, it is mostly used in an active, transitive sense, meaning the 'peopling' of a country or a town (Bailey 1675, s.p.). To describe the 'fulness of people', however, one uses the terms 'populosity' or 'populousness' (Bailey 1675, s.p.). In seventeenth-century mercantilist theory 'populousness' becomes an important concept; it does, however, not imply any more than a general correlation between the total number of people and the economic prosperity of a country (cf. Rusnock 1999, 54). A step further is taken by Francis Bacon. In a 1625 version of his essay *Of Seditions and Troubles* he not only uses the term 'population', but also goes beyond the concept of 'populousness'. Instead of just counting the people in

their total amount, one should rather distinguish them according to their economic usefulness: 'Neither is the Population, to be reckoned onely by number. For a smaller Number, that spend more, and earne less, do wear out an Estate sooner than a greater Number that liue lower, and gather more' (Bacon 1625, 83–4).

Here, to the imperative of counting is added the imperative of distinction, a double task which Graunt will carry out after the fashion of a merchant. His vocabulary makes it clear that he understands the living and dying in London as a play of economic transactions. For the whole of the 'population' Graunt uses words like 'sum', 'total', or 'pile', while the sub-totals are referred to as 'accompts' (Kreager 1988, 134). Cases of birth or death could thus be looked upon as additions and subtractions which increased or diminished the balance of a certain account. In comparing and cross-checking the various accounts one could hope to get a precise overview of the whole business, or, in Graunt's case, 'of the whole Pyle, called London' (Graunt 1899, 380).

Thus, although Graunt did not use the word, he can still be regarded as one of the inventors of the concept of 'population'. Not only was he the first to conceive the facts of life and death according to the model of a trade balance, he has also provided interventions in this household, which might well be called a 'biopolitics of the population' (Foucault 1976, 183). If 'bio-power' is defined by bringing 'life and its mechanisms into the realm of explicit calculations' (Foucault 1978, 143), then Graunt's *Observations* may be regarded as one of its first manifestations – even though Foucault dates the emergence of the concept 'somewhat later, towards the middle of the 18th century' (Foucault 1976, 183, not included in the Engl. transl.) and gives only a short hint to Graunt (Foucault 2007, 74). Graunt regards his *Observations* as belonging both to 'Political History' and 'Natural History', 'some concerning Trade and Government, others concerning the Air, Countries, Seasons, Fruitfulness, Health, Diseases, Longevity, and the proportions between the Sex and Ages of Mankind' (Graunt 1899, 322). Obviously, the decisive point is the intertwining of the two realms: political problems are treated in the manner of empirical science, and aspects of natural life, such as birth, health, disease, and death, are treated as political questions. Graunt's calculations of age distribution, mortality, fertility, etc., do not only generate a new knowledge of the population 'as a dynamic body governed by its own laws' (Bayatrizi 2008, 62); they also bring forth the idea of an 'honest harmless policy' (Graunt 1899, 395) which would take upon itself the hitherto blindly running processes of life and regulate it on behalf of the prosperity of the whole.

Table power

At this point it is not so important to what degree a biopolitics of the population was already realized in Graunt's *Observations*. For our purpose it is more interesting to ask how the link between life and politics ever came about. After all, what was to be heard of Graunt, the answer is simple: The confused sphere of life, dominated by fear and hope, can only become the subject of knowledge and rational management if it is numerically recorded and placed in tabular form.

A first step is to apply alone those criteria to the description of the human world which can also serve to capture the natural world, namely, as William Petty will put it, 'Number, Weight, or Measure' (Petty [1676] 1899, 244). This quantitative method conveys the idea of an objective representation of the social, which would be superior to 'the mutable Minds, Opinions, Appetites, and Passions of particular Men' (Petty [1676] 1899, 244). In presenting itself as uninterested and incorruptible, this propaganda of the number, however, transports its own ideological message: the idea of a 'neutral' way of governing, a power that

cannot be disputed, because it is based on objective, scientific knowledge (Buck 1977, 67; Slack 2004, 43).

A second important step in the transfer from 'world' to 'knowledge' is the tabular arrangement of the numerical data. It is this step which makes up the specificity of Graunt's method. It is also the one that most closely connects him with the episteme of his time. As Foucault has shown, the sciences of the classical age (the Baroque) were obsessed with creating an order of signs (of words), which would perfectly correspond to the 'order of things'. The medium from which this match was expected was the table. According to Foucault, 'the project of a general science of order' is carried out by 'the arrangement of identities and differences into ordered tables' (Foucault 2002, 79). The 'space of knowledge' opened up by the scientific revolution is a 'tabulated space' (Foucault 2002, 83). It is the tabular format which constitutes 'the ground of all possible orders, the matrix of all relations, the form in accordance with which all beings are distributed in their singular individuality' (Foucault 2002, 273). Using a Latourian expression, one could say that the 'table' or 'tabula' provides the 'universal exchanger' (Latour 1990, 54), by means of which the most diverse occurrences can be properly registered, named, grouped, ordered, and compared.

Foucault has shown what this imposition of a tabular grid meant to the science of languages, to natural history and economy. To conclude this article it shall be asked what it meant to the understanding of society and politics. Where and to what extent does the tabular format make a difference in the constitution of our knowledge of society?

The tabular gaze

One of the most striking advantages of the tabular representation is the synopsis, the opportunity to see many individual items at a glance. The political connotation is obvious: The statistical view is at the same time a strategic look. Like an army commander who, from his general's hill (cf. Katzmair 2000, 46), controls the battleground, taxing and arranging his troops, the political arithmetician surveys his data material, grouping and regrouping it according to varying cognitive interests. So, similar to the geographical survey, the demographical survey implies a look 'from above', a panoptical view, elevated above the ground perspective of the individuals. One important implication of the tabular disposition is the distantiation of the observer from the observed. The tableau can thus be regarded as a distancing medium: a medium which constitutes a representation of the world for a 'neutral' beholder who himself is not part of the scene (Crary 1990).

Another spatial implication of tabular representation is the reduction of a multi-dimensional reality to the two-dimensionality of a paper sheet. Like the surface of a table (the piece of furniture), a table (a chart) calls for displaying things on a homogeneous, clearly defined surface. Moreover, the temporal dimension is extinguished: as classical space in general, the tabular space can be called 'the order of the coexisting or the order of existence for all which is simultaneous' (Leibniz 1996, 54). Putting things in tables means synchronizing them; it means reducing the historicity of 'space' to the timelessness of a logical 'place' (Certeau 1984, 117–8). Unmistakably, the construction of the tabular order is bound to an act of standstill. In order to be counted and sorted, things and people may not move. Therefore, they say of the success of the first census, in Canada: '[…] people were few and frozen-in during midwinter when the census was taken' (Hacking 2002, 17). And hence the name 'State': The Italian word 'stato' derives from that act of stoppage, by which a merchant once a year interrupted his business in order to check its status ('stato') (Siegert 2003, 48). In this context, the emerging science of statistics is not only the science

which belongs to the state, but the one which interrupts the flow of time and gets hold of an 'état présent' or a 'status actualis' of things (Horváth 1978, 86). This is apparent in the formulas used by political arithmeticians, like 'The Present State of England' or 'The State of the Poor'.

The ideal becoming visible here is that of a static, quasi-frozen world in which nothing moves except the eye of the researcher. From here new light is shed on Graunt's referral to the Bills of Mortality. Perhaps it is no coincidence that the first attempt to establish a policy of life starts by counting the dead, i.e. those who are able to move the least.

Distinction and decision

A second politically relevant feature of tabular representation lies in its capacity to draw distinctions and to enforce decisions. At first sight, a table seems to be the perfect realization of a neutral, objective medium of scientific representation. So, Francis Bacon saw the table as 'a "system of places" or "positions" […] which can be checked by independent observers' (Kreager 1988, 130–1). In the same spirit, Graunt conceived of his table work as a completely transparent, non-rhetorical mode of presentation. Like on a blackboard, every mistake could be recognized and wiped out: 'I have, like a silly School-boy […] brought a bundle of Rods, wherewith to be whip'd for every mistake I have committed' (Graunt 1899, 334). This is the way a lord of the tables blurs his power. By offering any correction regarding the content he dissimulates the power of the medium which derives from its form. While every single entry can be disputed, the shape of the table itself is not negotiable. Thus, everyone who fills out a table assumes, more or less consciously, the underlying classification system and confirms the distinctions prescribed by it. It seems that this invisible 'authority of form' has above all to do with the fact 'that the actual "criteria" of distinction are not realized linguistically but graphically' (Brendecke 2003, 41).

Even if, as rarely happens, the categorical system of the table is put into question, the tabular form still remains unchallenged. The actual ideological power of the table lies in its graphical grid, in its ability to provide the logic of distinction with the evidence of sensory perception: What is in a certain table column is not only logically but at the same time visibly separate from what is located in another column.

The crucial point, which allows us to speak of an epistemic agency of the table, is that it not only arranges and clears up what has already been distinguished, but that it itself, due to its graphical structure, enforces the act of distinguishing. So, as Jack Goody has remarked, in

> an oral discourse it is perfectly possible to treat 'dew' as a thing of the earth in one context and a thing of the sky in another. But when faced with its assignment to a specific sub-grouping in a list, or a particular column in a table, one has to make a binary choice; it has to be placed either up or down in rows, in the left column or in the right. (Goody 1977, 105)

The coercion to distinction imposed by the form of the table becomes most obvious in the table line which graphically separates one row from another. As Sibylle Krämer puts it, the 'line is the condition of possibility of distinction; it produces distinguish*ability* without itself being part of what is distinguished by it'. So, table lines (like the lines of a cartographic grid) can be regarded as 'quasi-transcendental primary lines […] which make the inscriptions of knowledgeable things possible at all' (Krämer 2009, 2). The table line thus constitutes a medium for the removal of ambivalence. As an operator of distinction

it enforces the appearance of clearly determined objects – entities which have a well-defined place in the logical grid of the table.

Precisely this, this quasi-built-in coercion to distinguish, may be one reason for the amazing career of the table in the course of the scientific revolution: Better to make a wrong assignment than to leave the world in its vagueness. But the distinction is also a decision – which opens up a political dimension to the table. By their very structure, which allows only for clear, unequivocal entries, they push to decision (Brendecke 2003, 50).

From representation to simulation

The rise of the table in the seventeenth century is closely related to the general project of the classical episteme: to capture the things of the world in a rational order of signs. As the existing, natural languages only produce words of a multiple and confused sense, there have to be new, artificial languages, in which the signs would truly be the 'Images and the Representatives of things' (Petty to Hartlib [early 1649], cit. McCormick 2009, 61). It is not surprising that the projects of the time for the construction of a universal language tend to the format of the table. The table is able not only to assign to anything a place in a spatial order, it can also identify this place by a combination of signs. So the utopia of universal language to depict things, not in their random dispersal, but in their systematic order seems to come true through the medium of the table: 'The table of the signs will be the image of the things' (Foucault 2002, 73).

In fact, this dream has not been realized. This has to do with the fact that there is no unambiguous and universal logical order of things, which would only have to be represented by language. Ironically, however, the failure of universal language projects has in no way damaged the reputation of their central medium, the table. Rather, one must say that the table format has itself become a universal language, whose worldwide success is based last but not least on its simplicity. As has been emphasized by Jack Goody, the oldest writing practices consisted in counting and recording things in lists and tables, which was long before the invention of a phonetic alphabet. Even today's diagrammatic writings, mathematical notations, tabulations, etc., can in principle manage without any reference to spoken language. Inasmuch as they continue 'the pragmatic goal of the *graphé*', namely registration, counting, computing, they can be regarded as the 'most conservative' kinds of writing (Koch 1997, 67). In them, there is still something of the archaic trust in the reference of signs, of the idea that a mark on a list necessarily corresponds to a thing in reality. So the dream of representation lives on in the table: the beautiful illusion of an unambiguous correspondence of words and things.

But tables are not only media for the description, but also for the construction of worlds. For Francis Bacon it is an accepted fact that tables do not simply reflect a given order, but rather create it. This is why he calls them 'tables of discovery' (Bacon [1620] 2000, 82). To present things 'in an appropriate order' means to bring them into such a condition 'that the mind may be able to act upon them' (Bacon [1620] 2000, 109). So tables are media not only for representing things but for acting upon things, for manipulating them so to say 'in effigie'.

One important aspect in this efficiency of the table is the reduction of the world to a 'modèle reduit' (Lévi-Strauss 1962, 34). The most enormous things can by brought 'at hand' by representing them in a miniaturized image: 'The reduction of scale […] increases and diversifies our power over an homologue of the thing itself; through it, it can be seized, weighed in the hand, apprehended at a single glance' (Lévi-Strauss 1962, 35). Another important aspect which has been stressed by Bruno Latour is the reduction to

Figure 4. Table from John Wilkins's 'An essay towards a real character', 1668; detail (Source: EEBO).

the two-dimensional plane: 'The two-dimensional character of inscriptions allows them to merge with geometry. […] The result is that we can work on paper with rulers and numbers, but still manipulate three-dimensional objects "out there"' (Latour 1990, 46). So, for example by means of double-entry bookkeeping, it was possible for a merchant 'to substitute the domination of the large space by the domination of arithmetic operations on a sheet of paper. The transport of ciphers replaces the transport of goods' (Siegert 2003, 43).

The same idea of an interchangeability between operations in real space and operations in tabular space can be found in the most elaborate versions of political arithmetic. Leibniz conceived of his 'Staats-Tafeln' (tables of the State) as tabular descriptions which might enable a sovereign 'to overlook the connexion of things […] in a moment, so to speak' (Leibniz 2001, 345). According to him, tables were especially apt for making things 'palpable and evident' because of the 'established, quasi-mathematically consistent model and form' on which they rely (Leibniz 2001, 345). As in the projects for a 'universal language', the tabular form is meant here to deliver an ultimately clear and concise representation of 'reality', where each 'thing' is defined by a fixed combination of classificatory tokens. Leibniz's utopia of the table, however, goes further than the empiricist program of English political arithmetic. Instead of only depicting reality, tables should also be able to act on reality. Once there was a 'characteristica universalis' that would give an exact representation of the world, it should be possible to anticipate all possible events of the 'real' space by corresponding alterations in tabular space. It is typical of Leibniz's all-embracing rationalism that such a simulation is not only envisaged for the physical world but also for social space. Bernhard Siegert has pointed to Leibniz's idea of a perfect representation of the social which would allow reckoning in 'metaphysics and morals' nearly as precisely as in 'geometry and analysis': 'The police [policey], equipped with such an "écriture rational", would not have to make inquiries any more, it would only have to calculate' (Siegert 2003, 168).

The insistence of the table form

This article concentrated on describing the role of certain techniques of writing and drawing in the formation of a specific configuration of knowledge called political arithmetic. Answering to the question addressed by this journal ('Is the research medium the message'?) one could say: yes, for this special episode in the history of knowledge the medium (the table) can be regarded, perhaps not as 'the message' itself, but at least as a decisive agency in the formation of the 'message'. In the early modern period the table proved to be successful as a simple schematism which could be imposed upon the manifold aspects of social reality making them comparable and manipulable.

But what does this mean for today's social sciences? Apparently they have freed themselves from the political influences and ideological constraints which governed the knowledge practices of the seventeenth century. Regarding the research interests or the contents of knowledge there seems to be little or no continuity between political arithmetic and today's social science. But what about the overwhelming presence of tables and their enduring function as devices of evidence in modern social science?

Of course, a table realized in a computer program is not the same as a table drawn on a chalkboard or printed in a book. Following the ways of the table from the seventeenth to the twenty-first century would not only mean to consider the enormous variations of their diagrammatical form but also the historical and local differences in their perception and use. And, instead of just stating the power of identification and classification exerted by tabular techniques, one would also have to focus on the moments of outer resistance or inner dysfunctionality which subvert and destroy the idea of an all-encompassing tabular registration (cf. Ruppert 2008).

There is no single and straight way from Graunt's 'shopkeeper's arithmetic' to the sophisticated statistical techniques of today's social sciences. Yet, the esteem for the differences and modifications should not prevent us from recognizing continuities. Maybe the history of tables constitutes a special case in this respect. The size, shape, and material support of tables may vary, but at the same time they all rely on a basic operational scheme, a simple mechanism of spatial distribution, which cannot easily be altered or dismissed. Thanks to this, so to say, 'immutable kernel', tables remain recognizable as tables over long periods of time. As I tried to show in the paragraph on 'table power' it is the basic schematism of the table form which constitutes the 'ideology' of the table. And perhaps it is on this elementary level of logico-spatial distribution, on the level of the 'operating system', that one has to look for the continuities between different orders of tabular representation. So, the permanence of the table form in modern social science might indeed indicate some kind of complicity with the politics of order, of classification and identification, instituted by early modern governmentality – a complicity which is the deeper the more it remains unconscious.

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