10. Gabriel Tarde and Statistical movement

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> Look at any curve on a graph, for example of criminal or minor second offences in the last fifty years. Don't those traits have a physiognomy, if not like that of the human face, at least like the silhouette of hills and valleys, or rather, since we are concerned here with movement – for we speak so appropriately in statistics of fluctuations in crime or births or marriages – like the twists and turns, the sudden dives, the sharp ascents in the flight of a swallow?
>
> (Tarde, 1890a, 191)[i]

Today statistics is almost always thought of as a photograph, a fixed image of reality, which is itself always changing (this being moreover Durkheim's notion of it). Tarde thought differently; he championed a theory of statistics as a specific means of expressing *changes* in society. For him statistics is not static, as its etymology might lead one to think, but rather *dynamic*. This conception of statistics by Tarde is interesting because it is original and surprising, but above all because Tarde makes statistics an absolutely central mechanism of his sociology. He considers it much

more than a simple method; rather than being a secondary tool, for him there would be no sociology without statistics[ii].

In order to present his theory, we will begin by showing that, for Tarde, the world – and with it society – is first and foremost *quantitative*; it is in itself numeral [*nombre*] even before it is analysed by statistics. Following on from this we will see how statistics can be the sociologist's best ally in expressing the modifications of society so that they may be studied scientifically. We will give a number of statistical examples much used by Tarde, and we will see how his ideas enabled him to interpret them. Finally, Tarde's statistical theory would be incomplete if one last point was not stressed, one moreover which was largely neglected at the time, but which was crucial for him: turning on its head the question of how it is that societies can be described by figures, he asks what statistics itself does, and would do, to the societies which they describe. So, like him, we will conclude by sketching the portrait of this seldom identified social actor.

1 – Psychology: tension between initial quantities

The starting point for understanding the increasing importance of statistics for Tarde is to be found in his psychology. In *La croyance et le désir*, Tarde explains that for him all psychological states are combinations of the following three unique elements: belief, desire and sensation. Although sensation is a quality, the other two are quantitative.

So for Tarde two-thirds of psychological elements are, unquestionably, quantities. The crucial point is to understand 'the quantitative character of belief and desire alone'.

To explain this, Tarde first of all proves that sensation is not quantitative. He argues that:

> All quantitative reality known to us may by its nature have positive or negative values, internal oppositions. But sensation, which is a reality, has no negative values. Hence it cannot be a quantity. (Tarde, 1895a, 194)

Further on he explains that, 'What prevents me from accepting sensations as being in essence quantitative is that, in their apparent increasing or decreasing, they manifestly change in kind; these apparent increases or decreases are in reality metamorphoses'. When sensations undergo change it is a change in kind, not in degree.

On the contrary, belief and desire are quantities.

> All opposition is a conflict, an attempted or realized counterbalancing, which supposes a similarity of the opposed terms, their numerical comparability, the possibility of putting them into an equation. Hence no true opposition can be found outside of quantitative realities. So if belief and desire contain undeniable oppositions, it is proven that they are quantities; and it is evident that both of them encompass positive and negative states. (Tarde, 1895a, 196)

It seems to me that his argument is very powerful: opposition automatically implies similarity, for opposition is a certain form of equivalence, of equation. There being similar elements automatically implies reduplication, and this means they can be counted; hence they are quantitative. 'Quantity is in effect the possibility of infinite series of similarities and of infinitely small repetitions.' (Tarde, 1999, 57) Thus opposition is always in part quantitative. Since opposition is universal, quantity too is universal.

However, these quantities are always intermingled with sensations, making it complicated to enumerate them. 'The main difficulty in recognizing the quantitative character of belief and desire is the eminently qualitative nature of sensation, with which they are always found in combination.' (Tarde, 1895a, 197) Psychology thus allows us to see that the world is almost completely quantitative because exact similarities [*de l'identique*] occur, but that it is difficult to see this simply because the world is also made up of sensations.

It must be stressed that for Tarde these psychological components are never states, but always tensions, oppositions, or to repeat an apt expression used by one of Tarde's commentators, 'whirlwinds or spiralling clusters' (Bertrand, 1904, 637). There is never anything fixed or stable. Hence statistics takes on board exactly similar factors [*des unités identiques*], but these exact similarities [*identités*] are always 'desires and beliefs' - and therefore tensions, not resolutions of tensions (contrary to statistical categories which are constructed precisely so as to be stable) - or failing this they are 'products' resulting from belief or desire (Tarde, 1890a, 120). When Tarde speaks of 'imitation'

what he means is the action of imitating, not the result of this action. (See (Benvéniste, 1993): endings in 'sis' and 'tus'; 'sis' is the name of the result of an action whereas 'tion' is the name of the action in the process.)

> The proper task [of statistics] is to measure special beliefs, special desires, and to use the most direct procedures to study as closely as possible these quantities that are so difficult to get a hold of; to count *actions* that are the most *similar to each other*. (Tarde, 1890a, 120) (the underlining of '*actions*' has been added).

The statistician may be feeling elated with all of this, but he must first of all come down to earth. In fact, these individual psychological components, although they are quantitative in nature, are very difficult to measure in practice.

In *La croyance et le désir* (published as a chapter in Tarde, 1895a, 180-235) Tarde carries on an impassioned and closely argued discussion with Cournot (1843) in particular. The works of Cournot on the probability of working-class juries making an error when they are asked to give a verdict on the guilt of an accused are known. These represented one of the most successful attempts to measure beliefs. Tarde's discussion reveals, however, that, while in theory the two quantities, belief and desire, can indeed be measured, Cournot's probabilities in fact also confuse belief with the objective reasons for belief. The probability of winning on the lottery increases if I buy more tickets, but there is nothing to say that my belief in the possibility of winning will increase proportionately. Similarly, there are certain objective reasons which influence the probability of a jury making an error, but these do not influence in the same way its

members' reasons for holding a particular belief (for example, the number of jurors affects the calculation of the probability of jury error, but it is not certain that this counts in the same way in the minds of the jurors). Cournot's probabilities depend on psychological hypotheses that have not been verified. For these to be established once and for all, what is needed is clarification of the relationship between probabilities and the mechanisms for holding beliefs, but this has not yet been done. The practical quantification of beliefs is not yet within easy reach.

Thus, taking a psychological analysis as his starting point, Tarde shows the importance of the *quantitative* in the whole of human activity. *All* mental mechanisms have a quantitative aspect. It becomes obvious that this can give a very important role to statistics, which will open up a fundamental field of research, if it can account for these quantities. However, it immediately comes up against a problem: these quantities are difficult to express in practice as long as they remain in the mind. How can statistics overcome this difficulty?

2 – Social aggregates

Once it has been noted that the exactly similar units within any given individual [*les identités inter-individuelles]* are difficult to measure, the question arises about the measurement of such units *between individuals*. The question is: 'under what conditions can the powers of belief and of desire within distinct individuals be legitimately added together?' (Tarde, 1999, 58) In other words, 'Having demonstrated

that individual belief and desire can be measured, we need to ask whether beliefs and desires of different individuals, taken together , may legitimately be added together into one total.' (Tarde, 1895a, 207)

Tarde's argument was refined over time. In his earlier writings he seeks to identify what it is, exactly similar that passes from one person to another. He notes that orders given by an irascible general are understood in the same way if they are given by a phlegmatic general. (Tarde, 1999, 57). And, in any case, he observes that if there were no such transmission, the existence of many things would be made impossible: 'tradition would only be an empty word; nothing human could be transmitted unchanged from one generation to the next'. (Tarde, 1895a, 208). So there must indeed be transmission of the exactly similar.

These exactly similar things that are transmitted are not sensations, precisely because these latter depend on how each person is constituted: 'We consider that a certain sensation is missing in Peter, and that Paul has a different kind of sensation' (Tarde, 1895a, 208). So the only exactly similar things which can be transmitted are beliefs and desires. 'Only through beliefs and only through desires do we collaborate, do we fight; so it is only through these that we are alike. No better reason can be given.' Tarde cannot help it, that is how things are: human beings have a tendency to imitate each other, and there is no better explanation. Belief and desire are that 'which, under the variable tinge of the shades of the feelings proper to each individual, circulates as exactly similar things'.

It should be stressed again that beliefs and desires as such are quantitative. The statistician, therefore, just needs to be skilful enough to locate them, to find actions or outcomes that are sufficiently similar and to count them. Tarde gives the examples of the fluctuations in *the stock exchange*, in *marriage rates*, and in *crime* statistics. These exactly similar things that pass from one person to another, and which statistics traces with such ease, are beams of imitation [*des faisceaux d'imitations*]. (Tarde, 1895a, 207) And Tarde concludes later:

> This is why statistics develops with greater and greater ease when nation states get bigger[iii]: statistics, the proper object of which is to enquire into and to untangle the truly quantitative from the jumble of social facts, and which is all the more successful if it concentrates on measuring large amounts of belief and desire in depth, by means of the human acts which it adds together. (Tarde, 1999, 57)

Statistics therefore locates, within the mass of beliefs and desires, the exact similarities that pass from one person to another.

Later on in *L'opposition universelle* (1897), Tarde generalizes this argument. In his treatment of what he terms 'oppositions of degree' or 'quantitative oppositions' (parts VI-IX inclusive of chapter VII) he realizes that it is not necessary at all for anything to be transmitted for there to be a beam of imitations. The question he raises is what is truly quantitative and what is truly social about these oppositions.

He now notes that these oppositions need not be reduced to belief or desire. Admittedly, these two elements are added together and combined, thanks to diffusion by imitation [*la progression imitative*], and so they can be enumerated, but they are not necessary to the enumeration:

> Even though everything in each of us belongs to affect and sensation, with no consistency, all that is needed is for our brains to reflect each other, to communicate their states of mind to each other, for the dissemination by imitation [*la propagation imitative*] of each of these states to become a magnitude that can be expressed by a number. (Tarde, 1897, 202)

All that is necessary for statistics (and, as we shall see below, for society) to come into play is that there is (active) similarity between two beings, and this similarity may even relate to qualities. Nevertheless, 'it is true that the quantitative aspects of psychological phenomena can be communicated much more easily and rapidly from person to person' (Tarde, 1897, 203). Thus, quantitative opposition often rests on a basis of belief and desire, but this need not be the case.

> Hence there are these two great social quantities, which may be termed truth and value, in the broadest sense of these two words, or in more concrete terms, knowledge [*les lumières*] and wealth. The dualities of belief and desire are reflected, although transfigured, in this fundamental duality, from which flow all the different magnitudes, whether or not they are measured by statisticians. (Tarde, 1897, 204)

There are, therefore, realities of a different order, more properly social, which are made up, albeit not exclusively, of belief and desire, and which can easily be enumerated.

The relationship between social quantities and psychological quantities is that the social ones 'take for granted and confirm the consistency' of the beliefs and desires of distinct individuals, being the living collection of these; furthermore social quantities demonstrate the 'communicability' of the psychological ones, which they subsume.

It must be stressed that for Tarde, although statistics involves enumeration, this does not mean, quite the contrary, that it reduces the world, forces it into over-simple categories, that it simplifies it. On the contrary, Tarde stresses that the production of figures is a creative endeavour deserving the name of art. Admittedly it is not one of the fine arts, but it is a craft; something is produced, something is added, it is not diminution. Statistics brings forward, artistically, the similarities of the world.

The special feature of statistics is thus to produce similar elements in the overwhelming diversity of the world, and thereby to provide the means of enumeration.

> statistics is the counting of similar actions, as similar as possible. The art lies in the choice of factors [*unités*], which are so much the better the more they resemble and are equal to each other. (Tarde, 1890a, 162)

Without similarity, there can be no addition, and no figures.

This leads Tarde to conclude that 'statistics is limited to the field of imitation and excludes the field of invention'. Statistics produces the similarities of imitation. Accordingly, it cannot deal with unique elements. It is not entirely accurate to say that the field of invention is outside the scope of statistics; this is a slip by Tarde, because statistics has to invent the points of resemblance and sometimes, for example, the relevant unit for one or other measurement. But, even if it sometimes has to invent, this is with the ultimate purpose of producing imitations of the world. What statistics expresses, and what is proper to it, are series of similarities.

It is now time to stress that for Tarde the statistical and the social are practically identical. He gives statistics such a central place because the quantitative nature of belief and desire is essential (in the strong sense of the term) for society to be possible: without these quantitative realities there would never be any coming together. 'If this characteristic is denied, sociology is deemed impossible.'

In *L'opposition universelle* Tarde 'replies to a criticism once and for all' saying that it is not because he takes psychology as his starting point that he destroys the specificity of sociology.

> It was sufficient for me to see that people coming together make the social from the individual, from the mental, by virtue of their animal and pre-social sympathies, and that social reality is distinct from psychological realities precisely because it is a combination of these, because it is their non-contrived

> synthesis, their true union, their objective numerical reality [*le nombre objectif*]. (Tarde, 1897, 203)

This is important since the social is *defined* by number (imitation, i. e. repetition and thus it is quantitative). So statistics is entirely within its place when it constructs and brings to light curves of rays of imitation [*des rayons imitatives*]. Statistics is the social made visible. To quote Tarde:

> To say that immorality, criminal tendencies, demonstrated today by an increase in misdemeanours, existed previously in a latent state, would be to express oneself poorly. It is not true either psychologically or sociologically, and this so-called demonstration is equivalent to a veritable creation, to a passage from nothingness to being. (Tarde, 1886, 49)

What he says here of immorality is true of society: statistics does not make manifest a society that was latent; it brings it from nothingness to being.

This argument is directed against Durkheim (even though he is not named). Actually, the question of how it is possible to add together individual psychic states could not be raised by Durkheim. At least, it could only have been raised in reverse: his question would be how the suicide rate, a social fact, worked so that certain persons actually committed suicide. This is the problem of embodying an abstract entity. Durkheim starts from the results of the inquiry to go back to the individual (see Durkheim, 1930, 314) ; he does not enquire how individuals come to constitute , statistically, a rate.

3 – Applied studies of imitation

In practice, which statistics interest Tarde, the sociologist, and how does he use them? First of all let us look at his great work on 'La statistique criminelle' published in *Criminalité compare* (1886). It contains very many examples of tables of figures examined by Tarde. These data were not produced by him, but by his predecessor at the Ministry of Justice, M. Yvernès. However, he commented on them. In my view there are two points of particular note.

The first is the subtlety with which he separates the effects of the construction of the figures from the effects of the reality observed. One example (frequently cited – by Boudon (1979) among others) is his work on how crimes are formalised as offences in the magistrates court [*la correctionnalisation des affaires*]. He shows how crimes are transformed into offences. And this he explains, on the one hand, by how the court works and the recording of the statistics, and, on the other hand, by the behaviour of the criminals themselves.

The second point to note is how the analysis of the curves of a graph is buttressed by the model of imitations. For example a discussion of re-offence leads him to the following conclusion:

> From this it follows that contagion through imitation from this antisocial confraternity [the bandits] is not completely contained within this group, where it is manifested in their reinforcing each other's toughness, but that it partly radiates beyond, among the classless, giving them a class, among the idle, giving them an occupation, among those who have been cleaned out in whatever way, firing them with the perspective of a new and very exciting game. This is the true source of the evil. (Tarde, 1886, 52)

If criminals are left together they reinforce each other's toughness, whence re-offending, but at the same time the contagion radiates out, all the more strongly to those who are the most likely to be inclined towards crime. Tarde's model is a powerful tool for interpreting the data (on this point, I find that sometimes his analyses sound just a little dogmatic).

It will be remembered also that he liked to refer to postal statistics (Tarde, 1886, 48), statistics of shipping tonnage and statistics that today would be referred to as 'demographic' – birth, marriage and mortality rates.

At the end of *L'opposition Universelle* (1897) after having presented value and truth as purely social quantities, he expresses the regret: that he has not seen enough statistics which measure the 'truth' of a nation. In referring to the statistics of knowledge, he comments on a problem that arises when belief and desire are transformed into knowledge and value.

> Knowledge is no less quantitative than wealth. How is it that, while a figure is bandied about for the public purse, and the national wealth of France can be estimated at 200 billion approximately, no one has thought of drawing up, even very approximately an inventory of the national Truth, a statistic of its growth and shrinkage? (Tarde, 1897, 205)

That is the question: why is one more frequently enumerated with statistics than the other, and yet both are quantitative? The first answer is because there is money, the gold standard of all value, but there is no money for truth: 'But why isn't there this spiritual money?' Because the accumulation of knowledge does not presuppose the sacrifice of some other knowledge, and so a yardstick is not needed to measure the extent of this sacrifice. When one hesitates between two ideas, one might end up by sacrificing one to the other, and by believing one while forgetting the other. But Tarde considers that this is a 'purely individual', subjective matter, and that society does not need a yardstick: 'Thus it is because of its eminently liberal characteristic that truth, in the sense I intend, has been deprived of the sociological rank which is rightfully its'. But this is a shame; it could be useful to have statistics of truth: one could investigate which intellectual field – linguistics, law, science, etc. – contributes most knowledge to society. The 'variations of public opinion' could be studied with 'a good bookshop statistic' or with 'the rise or fall of religious faith'. The problem is that these statistics are sensitive, and above all they deal with virtuous acts, but it is not necessary to have as good a knowledge of virtue as of crime because 'the contagion of virtuous acts is less to be hoped for than that of crime is to be feared'.

Basically, Tarde provides a kind of methodology for statistics:

> The sociological statistician [must] always strive for and remain committed to this aim, or rather to these two aims: 1st by recording actions or works, to trace the curve of successive increases, inactivity or decreases of every new or old idea, of every old or new need, in so far as they spread and consolidate or are suppressed and uprooted; 2nd by skilful linkages among the series thus obtained, by throwing into relief their concurrent variations, to note the more or less large or zero resistance or support that these diverse disseminations lend or oppose to each other. […]In other words for sociological statistics it is a matter of: 1st determining the imitative power of each invention, in a given time and country; 2nd showing the favourable or adverse effects resulting from the imitation of each of them. (Tarde, 1890a, 170)

There is then a long discussion with Quételet who defended the importance of averages, while Tarde on the contrary stressed the importance of the rising sections of the curves.

> The lines concerned are always either ascending, horizontal or descending, or else, if they are irregular, they can always be broken down in the same way into three types of linear elements: escarpments, plateaux or declivities. According to Quételet and his school, plateaux would be the places of predilection for statisticians; discovering them would either constitute their greatest triumph or else should be their constant aspiration. There is nothing more appropriate

> according to him on which to found social physics than the uniform reproduction of the same figures over a considerable period of time, not only for births and marriages, but even for crimes and trials, Thus the illusion (since dissipated, it is true, especially by the latest official statistics on rising criminality over the last half-century) of thinking that these latter figures actually recurred with uniformity. – But, if the reader has taken the trouble to follow us, he will realize that, without in any way reducing the importance of the horizontal lines, a much higher theoretical value must be accorded to the ascending lines, signs of the regular dissemination of a kind of imitation. (Tarde, 1890a, 173)

Tarde stresses the periods of growth because the development of an imitation, of a movement, of avidity, can be seen there, while Quételet, according to Tarde (who gives no precise reference, but we can infer that he mentions Quételet, 1846), arrives on the scene once everything is finished; he is interested in society precisely when it is hardly still moving.

To finish this point let us stress the fact that the most impressive tool for Tarde is the curve, in preference to charts or tables.

> Each of these tables, or better still each curve of a graph which represents them, is in some way a historical monograph. And taken all together they are the best history that could be told. Synchronic tables presenting comparisons of country

> with country and province with province, usually offer much less of interest. (Tarde, 1890a, 164)

The statistics are presented in the chapter on history, which shows again to what extent Tarde considers that they aggregate actions and events.

Thus, the statistics which most interest Tarde concern a multitude of acts, and indeed some of these had not yet obtained, at that time, the statistic best suited to them; but the tool which fascinates him most is the curve, and preferably time curves, because they make it possible to show how rays of imitation [*rayons imitatifs*] are disseminated.

4 – Avidity

Having arrived at this point, Tarde takes a step back; he incorporates statistics into his own metaphysics. Indeed, as statistics uncovers the history of the trends of imitation, so statistics itself develops and appears as one trend of imitation among others: societies believe more and more in the use of statistics and want it more and more. What is to be said of that trend of imitation? What future can be predicted for it? This is the theme of the very elegant discussion on 'the particular avidity of statistics' at the end of *Les lois de l'imitation (*1890a, 191-198).

Tarde's thesis is that, as it is perfected, statistics will become one of society's senses, just as the ear and the eye are senses for individuals. He compares the 'statistical

patterns traced out along this sheet of paper' with 'the line traced on my retina by the flight of a swallow', and asks what the differences are between these two curves. To start with he stresses that this difference does not at all consist in one being 'symbolic' but not the other. The first are said to be symbolic and not the second, but this is not right; both are 'symbolic' for both differ from what they 'express' or 'convey'. In both cases there is, on the one hand, 'a heap of facts' (the different crimes, for example, and the different positions of the bird), and, on the other hand, a curve. The curve of the bird's flight and the statistical curve are both symbolic in so far as they combine facts, which otherwise would only be accumulated.

The only differences between the two are:

1) – the cost of statistics (while looking does not cost anything);
2) – the time it takes to produce the one and not the other (producing statistics is very slow, looking at a swallow, very quick):

> the statistical patterns traced across this sheet of paper by the mass of successive crimes and offences that are transmitted in statements of offence to the prosecution, from the prosecution, in annual reports, to the bureau of statistics in Paris, from that bureau, in bound paperback volumes, to the magistrates of the different courts (Tarde, 1890a, 191-192)

are to be contrasted with 'the line traced on my retina by the flight of a swallow'.

These differences are indisputable, but according to Tarde, they are only differences of *degree*; it is only because statistics are more recent than eyes that they are less efficient and function less smoothly. As they develop, statistics will become perfectly adapted to the world and will be able to 'statistify' it in the blink of an eye (to extend a metaphor).

> If statistics continues to make the progress it has made for many years, if the information it provides keeps constantly improving, speeding up, being normalized and increasing, the day could come, when, from every social event that is taking place, a figure will so to speak automatically slip out, which would immediately take its place in the statistical records continually communicated to the public and reported widely in graphic form by the daily press. (Tarde, 1890a, 192)

The symbolization peculiar to statistics will reveal the homogeneities in 'the mass of facts', just as the eye reveals and expresses the visible (and not the tactile) in the mass of facts. 'Consequently, accepting the perfecting and extending of statistics pushed to this point, statistical services would be entirely comparable to the eye or the ear.' (Tarde, 1890a, 193) The avidity of statistics would transform it into a sense for society just as efficacious as the eye is for the individual.

As a consequence, it would influence people more and more at the point of action.

> Consequently [its function will be] to have an influence on the tendency of those who know these numerical results to follow or not to follow this or that example. (Tarde, 1890a, 170)

Tarde gives the example of medical statistics (Tarde, 1890a, 121), which has 'contributed to making vaccination more widespread'. 'The day will come, let us hope, when it will be unheard-of for a deputy, a law-maker, who is called on to reform the magistracy or the penal code, to be ignorant (hypothetically) of statistics.' (Tarde, 1890a, 146) In other words, the more the trend of statistics itself for imitation is re-enforced, the more statistics will interfere with, and could re-enforce or counter, other trends, just as statistics shows how trends can be countered (decrease) or re-enforced (increases).

The point, then, becomes that statistics, 'like any other need', will also itself encounter opposition, other trends of imitation that conspire to crush it. It is not alone in rendering the social 'expressible'; but it does this in its own unique way, which itself also encounters opposition.

> It is legitimate to add together amounts of belief or desire held by separate individuals. In fact, this has been attempted with complete success and with a satisfactory approximation. The variations in the monetary value of things, statistics and also, as we shall see, the military triumphs or defeats of nations are all affairs variously appropriate for such measurements. (Tarde, 1895a, 273)

In other words, just as rail transport tends to cover the world in opposition to the horse, so too statistics encounters other means of expression which represent other rival trends of imitation, such as in particular *war*.

This example is crucial: war allows better *measurement* of the relative desires of two nations. 'But the oldest and the most primordial, if not the most rigorous, scale of this kind is war'. (Tarde, 1890a, 275) Indeed, at the end of a war the winner has also learned that he had a stronger desire to live than his opponent. The scale, 'war', has shown him that he was superior to his opponent. (Note here that the sufferings relative to statistics and to war are not taken into account).

The difference in the sum that a statistic or an army constitutes is that in the first case the putting together is done by adding up; in the second case it may be done in some other way. 'Similar desires and acts of faith have only one way of forming a [statistical] whole: their actual enumeration.' The army on the contrary is the result of a combination of diverse elements: 'dissimilar desires and acts of faith have [the] potentiality of being able to cooperate in the production of a work that is not the direct purpose of either of them'. In other words, in an army diverse elements are incorporated one with the other. The army too is subject to 'counting' for one can see by the outcome of the battle which army was superior. In addition, although the elements are different, they can be aggregated. War is like the total statistic of all a nation's trends of imitation.

Next, statistics still has weaknesses which could be said to be intrinsic to its youthfulness. In *L'opposition universelle* Tarde points out that statistics also has gaps which can be accounted for 'either by the practical uselessness, apparent or real, of certain records, or by the practical difficulty of operationalizing them'. Among these 'difficulties' he cites the fact that statistics can be sensitive (he has in mind an inquiry into religious practice).

Let us bring to an end this discussion on the weaknesses of statistics by considering a number of the *Archives d'anthropologie criminelle* devoted to Tarde after his death (volume XIX, n° 127-128, August 1904). It contains an article by N. Vaschide (1904) on 'La psychologie de Gabriel Tarde' where he writes as follows about a discussion with Tarde:

> He was surprised to see certain psychologists turn to statistics and to assertions that were too categorical on the basis of a few poor data. He hated *averages* and *enquiries*. This was, he told me one day, mediocrity of thought. (Vaschide, 1904, 672)

This is bizarre and yet no doubt quite true. Nevertheless, Tarde sees statisticians who do not follow his example bringing the profession into disrepute, and reducing what could be a noble project to mindlessness. He writes for instance in his commentary on Dumont's *Dépopulation et civilisation* (1890) about 'the range, the complexity, the greatness of a subject too often abandoned to pure statisticians'. In short, he was not an

advocate of relying *exclusively* on statistics. It should never be forgotten that he devised very many *other methods* of quantifying besides statistics.

Conclusion

Alexandre Lacassagne, a criminologist from Lyons and a friend of Tarde's, relates *in memoriam* (1904), how the judge from Sarlat came to be appointed to a post in Paris. In 1893 Professor Rollet, also from Lyons, sang Tarde's praises to his friend, M. Antonin Dubost, the Minister of Justice. The Minister 'requested him to write to Tarde to engage him to prepare a report on the organization of criminal statistics in France'. Tarde did so, then on 26 January 1894, wrote back to Lacassagne,

> My dear friend, I would not like you to learn of my nomination through the *Officiel*. Only two days ago I submitted my report to the Minister – a manuscript of 44 pages, where of course I often cited the *Archives* regarding Bodio, de von Listz and the remarkable articles by de Corre on military criminology. And this morning at mid-day the Minister put a call through to me and has just told me that I have been appointed Director of Criminal Statistics. (Lacassagne, 1904, 525)

Thus Tarde's life was deeply changed, and, we might say, propelled by statistics. Tarde knew this, and he served statistics well by giving it pride of place in his works. Statistics is at the core of his sociology, as it was at the centre of his life.

Notes

[i] The quotes in this paper have been rendered into English by the translators; however, the page numbers refer to the French texts. In certain places, the original French expression has been included in square brackets.

[ii] Many thanks to Olivier Martin and Bruno Latour for having discussed this paper with me. For a broader view on statistics and on their social effects see (Didier, 2009).

[iii] The opposition to Foucault must be underlined here. Foucault conceives statistics, by and large, as a means of control, and this is why he argues that statistics first appear in small countries, easier to dominate (Foucault, 2004, 280).

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