Gabriel Tarde
SOCIOLOGY_OF_INFINITESIMAL_DIFFERENCE.pdf

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The starting point of Tarde's sociology are individuals. That does not make it a methodological individualism. Instead, it is a sociology of infinitesimal difference which finds in individuals an adequate reference for addressing social life, and that ends up by turning problematic both the notion of individual and society. Imitation is here an elemental form of social relation, but it is not the only one: opposition and invention are elemental social relations as well. Social life, in what it has of proliferating and chaotic, is made up of these relations, differential relations that can be however organized, or better yet integrated, both logically and teleologically (without being totalized by this organization). By relying on pluralistic ontological and epistemological positions which privilege difference over identity, time over space, the infinite over the finite, this sociology shows itself as off-centered regarding formerly and today’s holisms and individualisms. Re-reading it as an infinitesimal sociology of flows and ensembles can open a way to go beyond the oppositions between individual and society, and between micro and macro approaches.

KEY WORDS: Gabriel Tarde – Relational Sociology – Difference – Infinitesimal

“Even as the finite encloses an infinite series, / And in the
unlimited limits appear, / So the soul of immensity dwells
in minuta / And in the narrowest limits, no limits inhere”.
Jakob Bernoulli

Since the emergence of the modern societal formations, the problem of the social
sciences is constantly being reformulated. It so happens that accepting the hypothesis
that there would be something such as social phenomena implies the necessity to know
whether it is possible to apprehend them, and how to do so. And, since early modernity,
the question about the social as a specific domain of research is the question about the
objects, concepts and methodologies of social sciences in particular, as well as about
science in general. Hence, thinking about the social in this context entails an inquiry of
the relations of social sciences with other sciences, and with philosophy as well.

Tarde raises a possible starting point to approach the problem in these terms
stated, and he does it in this way: “Let us put ourselves before a large object, the starry
sky, the sea, a forest, a crowd, a city. From every part of such objects impressions flow
that lay siege to the savage man as well as the scientist. But, these multiple and
incoherent sensations are understood by the latter as a pattern of logically connected
notions, a bunch of explicative formulas. How are these sensations and notions slowly
transformed into laws? How could knowledge become more and more scientific?”
(Tarde, 1898: 15). His answers were almost forgotten during the major part of the 20th
century, but before examining them let us revisit those remembered in that same period.
This will be very useful so as to comprehend the reasons of that oblivion, as well as of
its present remembrance. It is possible to affirm that modern reflections about the social
were governed by mechanistic, organicist and dialectical approaches until the middle of
the 20th century. This was true at least in France, Germany and in the places influenced
by that continental thinking. A shared trait of the first two approaches, actually different
in many other aspects, is their conviction that doing science (social or any other)
involves finding identities, similarities and regularities behind the infinite variety of
changing phenomena presented to observation. For them there is only science of what is
repeated –this is the Aristotelian dictum that would rule both theories and practices of
modern sciences in their development. We will see that Tarde accepts that, but trying to
make science comprehend not only regularities but also events, differences, changes and conflicts. It can be thought that he is then close to dialectical approaches (especially to Marxism). Nonetheless, this is not accurate. The radical difference from where Tarde starts, and on which he bases the sociological approach he aims to generalize to all scientific knowledge, is not oppositional but rather infinitesimal. We will later come back over this. Let us put aside dialectical approaches for now, and for sake of clarity concentrate on those holistic positions whose starting and arrival point is identity rather than difference (dialectical or any other). The basic idea here is that behind the varied multiplicity which our senses perceive (a crowd, a city...), there are systems of structures and functions that operate without being seen, heard or felt, and that nonetheless give definite shape and regular rhythm to the world. Profound homogeneities hidden under the heterogeneity of chaotic daily life are then discovered, and anyone who claims to be singular is called conceited. The European 19th century produces vigorous holisms of this kind, Durkheim’s one in first place. Later, during the first half of the 20th century, the systematic search of systems is generalized, and it becomes increasingly subtler and more pervasive. French structuralism is a clear example: society will no longer be understood just as a moral (or class) structure, but rather as a system of systems such as language, kinship, dressing, cookery, etc. Here, the notion of difference is crucial since the systems in question are understood as systems of differences, and the identities they produce considered as differential ones. However, they are differences taking place inside a system, and produced by it. They are, so to speak, differences among homogeneous elements, systemic differences. Once positioned here, the more totalizing, structural or systemic the explanation is, the more fascinating it seems. What is subjugating about this kind of explanations is that things which look very different from each other actually result analogous or isomorphic. And, moreover, they are explained by the same structural causes. The widow dresses in black because the bride gets married in white, according to Leach’s (1976) classical example. The underlying structures behind that strange difference of colours are kinship ones, at least in the manner it has been operating in Western societies.

There are numerous reasons which have driven many social theorists to reject this spell. Gabriel Tarde’s rediscovery is among them. In his sociology, there is an unexpected sensibility for the diverse and the nuanced, as well as for relations and non-completely systematic connections among things. Unexpected because it is a sociology produced in France during the second half of the 19th century. That is to say, produced
at the same time and in the same place where holistic social sciences would configure and succeed. In first place a surprising style, which would not be awaited from someone who intends to found a science of the social. Tarde’s writing moves forward as a climbing plant or a water current. His texts are as fluid as digressive, generous in details, concerned with trifles, singularities and picturesque facts. ‘Literary style’, many commentators said. A style in which, without solution of continuity, one thing conducts to another one, connecting with it through different visible and invisible threads. It can be stated that his style is to plot networks. But, unlike Structuralist modus, the networks in this manner weaved do not close over themselves, they do not connect only homogeneous elements, and they do not fully succeed in ruling these elements. Instead, they are always inconclusive networks, partially successful in their associating vocation. A kind of association that advances through branching, producing new connections and new divergences, finding new regularities but also new singularities, and stopping only where its potency exhausts. But this is Tarde’s scientific style, not his literary one. And this because, in his opinion, it responds to the manner in which reality is constituted. Reality in general, and social reality in particular, appear to his eyes as an infinite multiplicity of connective processes, a multicolour and moving entanglement of moving flows or currents. Therefore, unlike Durkheim and Levi-Strauss, there is a pre-eminence of time over space in Tarde’s thinking. To him, as to Bergson and Deleuze, the social is a manifold of multilinear, infinitesimal and infinite processes. Then, if there exists something such as the society, this would be nothing but a contingent, temporary and incomplete form of integration of those processes which constitute, destitute and always exceed it. Hence, this allegedly literary style does no other thing than adapting the sociological writing to the ontology and epistemology of the infinitesimal difference which informs it.

The case is that for Tarde it is not likely to constitute a science of the social and its processes without having first decided the ontology –and even the cosmology– that will support it. And this is because he considers that the form and validity of any discourse –whether it is scientific, political, ethic or aesthetic– about social reality, depends on underlying basic assumptions which allow its articulation. Thereof, his sociology always implicitly or explicitly refers to the most important problems of Western philosophy, and his social theory can be read as an answer to many of those problems. The originality of that theory, the strangeness still caused by its reconstruction is due to the fact that these questions have not been formulated and responded in terms of the
metaphysical and epistemological tradition ruling social sciences until the latter part of the 20th century, but rather against them.

It can then be seen the difficulty that such sociology offers. We still lack the (scientific and non-scientific) common sense that enables us to comprehend it thoroughly. But, by the same token, the core of its currency resides in its capacity to transform our common sense. It so happens that the concepts with which we usually think about society are spatial ones, or better yet geometrical –and, most of the times, from a Euclidean geometry. We are habituated to imagine social configurations by appealing to circles, squares and triangles (or with spheres, cubes and pyramids at best). Those are the images of our social structures. Well, Tardean social life does not fit any of them, but not because it is only made of differences, singularities and chaos. Tarde certainly understands social life as an unformed magma, and he looks for a science able to give an account on this, having this assumption as a privileged starting point. He nevertheless also understands that social life structures itself producing sets, regularities and more-or-less durable similarities. According to him, both directions of social life can, and must, be scientifically apprehended. He thus believes in social sciences. However, differences, singularities and chaos as well as sets, regularities and similarities arising from this understanding are necessarily different to the ones imagined by the ruling sociological common sense from Marx, Weber and Durkheim to the emergence of post-structuralism (event that comes together with Tarde’s rediscovery on its back). Let us see.

From the micro to the infinitesimal (and to the infinite)

In a first approximation, Tarde’s sociology can be qualified as micro-sociology. However, this qualification should not automatically remit to the micro/macro polarity in the way it is usually utilized to classify social theories in social sciences and humanities. Although important differences regarding the precise sense given to these terms exist, it is possible to affirm this classification is, in its more general and persistent forms, a differentiation of levels and scales. Narrow social spaces corresponding to individuals and their interactions in small groups are considered micro, while the space of the big groups and their structures is deemed macro. Thus, micro-sociologies’ appropriate objects should be the actions of individuals often understood as intentional units, as well as the local interaction networks woven among them. Accordingly, their suitable research methodology is a “descendent” one. That is
to say, one that aims to reduce all that can appear as general, collective or supra-individual to inter-individual relations. Then, what we usually call institution would be nothing but the addition of certain individual inter-actions, and the individuals would be the building blocks of any social set. Hence, if there is a social whole, this is not larger than the sum of its parts. On the other hand, macro-sociologies carry out the reverse track. When their starting point is individual behaviors, they describe them as the result of the action of institutions over them –being these supra-individual systems irreducible to their constitutive elements. Thusly, their appropriate subjects of study are social systems understood as well-defined totalities, and their analysis methodology is “ascendant”. Societies and their institutions are not aggregates of people but rather systems and subsystems that result incomprehensible if decomposed in elements of inferior level (individuals), because here the whole is larger and different from the sum of the parts. In macro-sociological explanations, societies are the ones that tend to behave as unities (which are sometimes even treated as intentional). Here, the sociologically significant behaviors and interactions reach satisfactory explanation only in terms of their referral to supra-individual large units that would give an account of them. State, classes and nations would be those types of units.

The terms micro and macro in this manner understood have enabled a classification of social theories as such: Marx’s, Durkheim’s and Parsons’s theories would be macro-sociological, while Simmel’s, Homas’s and Goffman’s ones would be micro-. These terms also permitted the evaluation of categories and concepts inside those theories. Therefore, this distinction has been used to qualify a complete theory according to its general manner of approaching to social reality, and also to follow the different combination possibilities inside one given theory. Finally, this polarity of the large and the small enabled guiding diverse synthesis attempts so as to produce new social theories (a significant portion of Giddens’s and Bourdieu’s efforts can be read in this sense).

From his side, Tarde wanted a science of the social orientated not just toward the small, but rather toward the infinitely small. Following Leibniz, he has believed that “the key of the entire universe” could be found there (Tarde, 1895: 320). For this reason, he was decided to promote in sociology the revolution that, in his opinion, monadology had done in metaphysics and the infinitesimal calculus in mathematics. This revolution implies a series of both epistemological and ontological decisions which constitute real inversions in regards to the manner of thinking that has traditionally
dominated philosophy and a large part of science. The former consist, among other key things, in trying to explain the big by the small, the static by the dynamic and the identity by the difference. The latter consist in affirming the irreducible multiplicity of the real, as well as its varied, variant and infinite character. That is to say, they consist in privileging the multiple over the One, and the becoming over the being.

The entrance through infinitesimal calculus may help us to see what is at play here. Formulated by Leibniz and Newton at the end of the 17th century, this mathematical tool was subject to epistemological and metaphysical polemics since the very beginning. By then, it has still an accentuated geometrical content from which it would release through an arithmetization process that reaches its summit with the works of Bolzano, Cauchy, Dedekind, Weierstrass and Cantor during the 19th century. With them, what was only a collection of techniques was turned into a well-substantiated theory of rigorous methodology: mathematical analysis. The resort to infinitesimals, considered as infinitely small quantities, is characteristic of calculus techniques. But the discussion about the statute of those quantities, which without being null are smaller than any imaginable quantity, persists until present time. Some Newton followers considered them useful fictions, merely good for operative purposes. By following Leibniz, some others understood them as expression of infinitely small real entities, whose number was infinite (entities which Leibniz called monads). In any case, the calculus is, above all, the mathematics of movement and change1. And Leibniz, at least in his first formulations, has leaned on both analytic geometry and arithmetic in order to capture them. The indication of something essential is found in here, for geometry works, so to speak, on the field of the continuous, while arithmetic does so on the realm of the discreet. It can then be affirmed that the calculus makes an articulation of the discreet and the continuous, which is the articulation of the finite and the infinite as well. Infinitesimals are precisely the link between both dimensions or registers.

Tarde found himself among the ones who sustained that, apart from being a suitable tool for resolving important mathematical problems and many practical issues, infinitesimal calculus entails a singular way of understanding reality. An understanding that, by proposing new manners to define the relations between the finite and the infinite, enabled to comprehend reality itself not only as continually shifting, but also as infinite –this is a belief that Bergson and Deleuze would share later. Thereof Tarde’s call to orientate all scientific (and philosophic) research toward the infinitely small and dynamic differences which the calculus technically implies, and metaphysically
suggests. Each science should then find its own infinitesimals so as to carry out its revolution. Thus, for instance, certain cellular and atomic theories, contemporary to him, were the beginning of a profound subversion in biology and in physics respectively. Nevertheless, which would be the sociological infinitesimal? The individual, it will be rapidly answered. Hence, we will make Tarde a methodological individualist, concluding that his microsociology responds to the polarity micro-macro described above. But doing as such, we will miss in the essential point. In this microsociology, the individual is a product of social life more than its producer. Nevertheless, this does not imply replenishing any of the macro-sociological alternatives, which are in fact opposite and complementary to the individual. According to Tarde, neither moral nor economy, ideology or the State are producers of social life (they are rather its products also). For him, social life is the streaming and the confluence of multiple flows of beliefs and desires, and a flow of this kind is no other thing than the repetition of a certain manner of doing, feeling and/or thinking from one individual to another. That is why he can say that “psychic relations from individual to individual are social life’s infinitesimal but continually integrated element itself” (Tarde, 2000: 23)

Now we can start to see why this micro-sociology is, strictly speaking, a sociology of infinitesimal difference. Here, each individual is an intersection of two infinites as Pascal (1904) has wanted. But what in Pascal had a metaphysic (and tragic) sense, now acquires an (optimistic) historical and sociological dimension. The infinites in question are, on the one hand, the infinitesimal social streams which, from multiple origins, converge over each individual in the form of action, intellection and feeling models. On the other hand, each individual is the point of depart of new streams which can change her life and the other ones.\(^2\). Thus, each individual is a particular mode of integration of diverse and variable social currents stemming from diverse times and spaces, and, in that sense, she is unique. Each one is an original set of heterogeneous elements, even when these elements are completely social, and even when from afar, she is seen and looks herself equal to any other member of her group. Nobody is Marxist, conservative or liberal in the same manner. But, moreover, nobody is merely Marxist, conservative or liberal. Every individual, even the most dogmatic one, is a compound of different beliefs and desires concordant at diverse degrees. And these beliefs and desire live together with others which are indifferent to that concordance, and with some others which are directly opposed to them. That is why there can be Marxist people with macho customs that profess Catholicism, and also conservative homosexuals with some
pagan habits mixed up with feminist inclinations (among many others inclinations). These combinations, habitually considered as odd anomalies, are here exemplary since social entities are always exceptional configurations for this infinitesimal sociology – and this is valid for every individual as well as for every social group. That is to say, there are no social “units” haven’t been socio-historically produced as a particular and contingent integration of innumerable differences. Hence, it can maybe be said that every individual is an event –as every institution and group is. Certainly, the elements that compose us are common (both ordinary and collective), but they are not the same for everyone. Likewise, the manner and the degree in which they articulate in each of us are extremely variable. For that reason, although according to Tarde individuals are imitation products, he insists in the fact that there are no two equal imitations –even when they are copies of the same model. Imitation is always differential, and its difference assumes infinite degrees. Each individual is then original, although her variations with respect to the others are almost imperceptible. It can be said that they are differences of detail which are insignificant for that reason. But since essential differences do not exist, those of degree are the only ones that count: all difference resides there. For Tarde, as for Valery, the truth is in the nuances.

Now, stating that the individual is unique does not make him or her indivisible (nor immutable). If individuals are no other thing than the unstable and provisional integration of innumerable psycho-social fluxes, then they are far from being the solid, definite, autonomous and founding entities proposed by the micro-sociologies. But they are also far from the structurally (over)socialized agents proposed by the macro-reductionisms. In Tarde, the macro-structures about which different holisms speak are, in the best of the cases, panoramic concepts –and revivals of medieval realism, in the worst ones. Panoramic concepts are those that capture only massive, gross and non-precise similarities. They are homogenizing and static frameworks which hide more than what they show. The concept of society is the first one among them; but nation, class, State and ethnicity are panoramic concepts as well. If sociology is to make any advance, it must move from these macro-approaches toward the micro-world of the relations among individuals, and from there toward the infinitesimal processes of relations among relations. That is to say, toward the relations among trans- and infra-individual flows of beliefs and desires\(^3\). What from far away is seen as uniform and well-defined macro-entities is nothing but more-or-less regular manners of doing,
feeling and thinking that repeat from one individual to another, associating and resembling them in certain aspects, and during a certain period of time. Though, as already mentioned, the real “level” in which this process occurs would not be the individuals’, but the one of the infinitesimal streams which constitute and, as we shall see, also destitute them. The flows of national, ideological, moral, sexual and racial beliefs and desires are just some of these streams. As a result, it becomes really problematic to continue talking about levels here. It is also difficult to keep on using the grammar of the being, to remain subjected to its substantialist load and its eleatic tendency. Here, one thing can be separated neither from its relations nor from its transformations: in the social realm everything is relational and processual or “moving” —to say it à la Bergson, the first grand Tarde’s heir in France.

Therefore, neither societies are giant individuals, nor individuals are thumbnail replications of societal configurations. If it is a matter of going beyond this recurrent polarity in the sociological thinking, it is then paramount to rigorously follow a radical relational logic. That is, to follow a grammar of the infinitesimal difference which understands that real relations occur among relations (this is what is exemplary and revolutionary of infinitesimal calculus). In this grammar, the term micro comes to designate the logic and the dynamic that constitute any small, medium or large group, as well as any individual and any social artefact. On the other hand, the term macro- comes to refer to a (false) panoramic perspective we must abandon. Following that direction, the micro is no longer a reduced replica of the macro, and the macro does not exist anymore. Hence, both terms are to be abandoned. Now nationality, class or ethnicity are no longer transcendent macro-structures; they instead become similarities produced by the repetition of a model in a certain number of individuals –on its part, similarity transforms into a difference which tends to zero, it becomes an unattainable identity since repetition is always varied and variant. As we shall see, religion, economy, government, art, sciences, and everything sociology knows as institution, now result open and moving sets of (big and small) inventions which produce imitative flows of different intensities and scopes. Or to put it in the terms of Social Laws, each of them is an ensemble product of “an infinite number of infinitesimal and fruitful adaptations”, that in turn produces “elementary, innumerable and infinitesimal repetitions” (Tarde, 1898:122). Likewise, class struggle is no longer seen as a great conflict among large homogeneous blocks but rather as a disseminated web of innumerable and infinitesimal oppositions, as localized as unstable.
Elemental social relations: imitation, invention and opposition

A common misunderstanding of Tarde’s theoretical positions is to see in them a sociological mirror of common sense. The habitual, individualist and anthropomorphic thinking of everyday life, drives us to describe imitation as the action of a copycat individual. Even when it is eventually accepted that it can be unconscious, imitation still belongs to the imitator and involves her completely. This seems even surer regarding invention and opposition. We often consider nobody is more in full possession of herself than an inventor. The myth of the genius indicates that a creation is brilliant when it emerges without any relation with its context. The myth then indicates that real creations completely emanate from its owner: the genius as the exception itself produced. In a way, something similar would occur with opposition. Contradicting would be the activity of an individual or collective subject that, in its opposition, sharply differentiates from other individuals and groups. The case is that the opponent has also got her myth: one that understands rebellion as a pure essence, a quality completely alien to the matter from which established and conformist people are made of. Here, the antagonist would be an external being, refractory to the forms and/or contents which contradicts. For him or her, as well as for the inventor, an “all-or-nothing” law rules. Therefore, the mystified ones will be disappointed if those genius and rebels reveal filiations or influences shared with their social surrounding: these will no longer be so brilliant nor so rebel, either.

The infinitesimal approach to social life is off-center in regards to this individualist anthropomorphism and its mystifications. Surely, for Tarde, the individual will always be an analytic operator and a major pathway to social dynamics and its configurations. From his perspective, the individual is a more suitable entrance to social realm than structures, systems or any other macro-reductionism. However, as previously stated, the imitations, inventions and oppositions he talks about, do not refer to terms but rather to relations. They are “inter-mental” or “inter-psychological” bonds that cannot occur among individuals understood as pre-existing totalities since these relations are the ones which constitute them (and because, being constituted as such, individuals never exist as totalities). What passes or communicates through minds are beliefs and desires which are “previous” to individuals. That anteriority makes these beliefs and desires neither biological nor merely (intra)psychological entities: they are
entirely social. They are ideas, images, feelings and even modes of perception which propagate as examples from one individual to another (from parents to the kids, for example). Then, performing as guides for action, intellection and emotion, they are the engines of every psychogenesis. Then to be exact, we should say that those models do not propagate from one individual to another, but instead from a body to another one, producing individual and group “identities” in them. That is, turning them socially similar to themselves and to the others. They are the engines of every socio-genesis as well. Social desires and beliefs work as models which reach every body (specifically, every mind) as examples to be imitated. Their reiterated imitation configures habits, memory and judgments where there was only a pre-individual and non-formed psychosomatic singularity (i.e. a body) before. We can then say that an individual is configured by the affluence of moral, political, economic, religious, sexual, esthetical and scientific examples over him or her. But she is also configured by the influx of manners of speaking, walking, eating, sitting down, having fun, and so on and so forth. Even the tiniest details of her personal configuration derive from examples coming from different latitudes and times which got to her not only via face-to-face communication but also through the most diverse interfaces (books, newspapers, radios, tvs, and so on).

Nonetheless, this does not imply that all individuals are the same because of their entirely social (poly)genesis. Stating that individuals (and groups) are made of examples coming from the social context does not necessarily imply affirming that that social context assumes the form of an organism –or of any other system conceived as a closed and transcendent totality of structures and functions. It does not mean that limits between the social surround and individuals are net either, since they are precisely differential social configurations. Hence, as it was mentioned, each one is a multilinear set of social flows integrated in an original manner. But for the same reason, in each of us, being matches doing. Or, to say it with Bachelard (1970: 15): “the substance of the infinitely small is contemporary with the relation”. This makes the individual conceived both as an intentional unity and building block of the social, a narcissistic chimera. Far for being a pre-social given entity, the individual can be thought as an open set of blurred, moving and unstable contours produced in a somatic singularity by the mimetic playing out of social life. And this is why we can add that her identity is composed and decomposed innumerable times along his or her biological life, and that there is no pathology in this. According to the indomitably pluralistic clause of this infinitesimal sociology, one is born similar neither to others nor to oneself, but rather becomes
similar by copying oneself and also the others. For the same, individual states of equilibrium and “identity” radically depend on the mode and velocity in which that mimesis is produced. Individuals are then compromise solutions which are constantly challenged and put in communication by the impersonal social flows that fold and unfold them. And the same rules for social groups.

Tarde especially attends two of the ways in which the individual understood in this manner is challenged: when placed in states of multitude (whether in masses or in publics), and when placed in supra-social states at the (eventual) time of an invention. Let us pay attention to the latter since it is an elemental category of infinitesimal sociology. It can occur that two (or more) imitative flows that previously ignored or opposed each other, encounter in an individual and co-adapt among them. Whether she has worked tenaciously for this to happen, or if it has happened in an unconscious or random manner, is irrelevant since the sociological result is the same: a new difference will take place and will be capable of disseminating and transforming, to a lesser or to a larger extent, the physiognomy of the existing world. This unprecedented event is called invention, and every individual in which this conjugation occurs is denominated inventor. The “impossible” aspect of all invention resides then in the co-adaptation in question. According to Tarde, what conjugates are pre-existing truisms whose particular linking manner is what sheds unexpected, often astonishing results: a stone and a club made the lever. It can also happen that those pre-existing “truisms” are very complex. The invention’s principle is, however, always the same: the combination of Descartes’ and Fermat’s geometry with arithmetic in order to give birth to infinitesimal calculus. In any case, an invention is a happy encounter of pre-existing imitative vectors whose outcomes diversify social life by actualizing its “possibles”. That is to say, by producing new desires and beliefs. Thereof, this category comprehends from Einstein’s theory of relativity and Picasso’s Demoiselles d’avignon, to Marx’s Capital and the United States’ constitution, passing through the steam engine and the tomograph, and reaching the fork, the pen, and the coffee with sugar. Many years before postmodern sensibility (another invention, or better yet, an ensemble of inventions) invaded us, Tarde disregarded what was considered “high” and “low” according to ethic, politic and aesthetic parameters of modernity. His infinitesimal sociology valued inventions just for their capacity to disseminate themselves and to change the context where they deploy. That is to say, he valued them just (micro)sociologically.
Tarde understands that every –simple or complex, illustrious or unknown– invention entails a possible different world. This is so because he finds in every invention the aspiration to be repeated until all of its possibilities are effectively realized. Every invention would then have an infinite appetite. In any case, the sociological point is that each of them tends to propagate as fashions (rapid imitations) and then take roots and reproduce as customs (relatively slow imitations). Thus, by repeating from one individual to another, in a rapid or slow manner, they weave social networks giving certain coherence to the social field in which it deploys. The universal colonization and homogenization tendency present in each invention fails in its effectuation because of the interferences it finds in its path. These interferences can assume the form of oppositions, or can give rise to new co-adaptations which in turn will prompt new propagations, new creative combinations or new struggles. All this makes history be multiple, contingent and endless from an infinitesimal perspective.

As mentioned, it can then happen that ways of doing, thinking and/or feeling implicated in a new religious or political dogma, scientific theory, technical artifact, oppose to others, instead of conjugating (or ignoring) with them. Tarde (1897) certainly characterizes opposition social phenomena as struggle, combat and destruction, but avoiding the trap of the opponent’s myth, he shows that far from being a maximum of difference and exteriority, opposition can only occur among similarities. Differences, he explains, cannot oppose since they are different: extremes are always the same kind. Hence, for an opposition to exist there must be a common reference denied by any of the two poles and affirmed by the other one. For this reason, every opposition process entails the production of counter-similarities, inverted repetitions or polar symmetries. Action and reaction, assertion and denial always respond to each other, turning the opponents increasingly (counter)similar. Therefore, every opposition involves a process of rising symmetries of forms and forces equilibrium during the time it lasts. To say it in other words, instead of entailing separation or distancing, all conflict, even the most violent and cruel one, is a (elemental) social relation. Moreover, it is a very strait social relation –something very well expressed by the Mexican poet Rosario Castellanos when she said that we give our life to what we hate. Before causing the destruction of one of its two constituent poles, opposition is a very intense and close relation between them. These are the reasons which make Tarde retain the moment of reciprocal equilibrium and deny any creative force to opposition. According to him, the real anomaly or disruption in the multi-centered social communication process would not be opposition
in its different variants – from transgression to dialectical contradiction. It is the invention the one which interrupts, for a moment, the game of re-productive repetitions and neutralizing or destructive counter-similarities, in order to give rise to a social difference which enriches the social life and produces new futures.

Social life, Ensembles and Somnambulism

What is a society? Tarde faces this founding question, and attempts to answer it in accordance with his neo-mondadological ontology, his epistemology of infinitesimal calculus, and his elemental sociology. That is to say, in consonance with his understanding of the social as an open field of infinitesimal repetitive, conflictive and inventive relations. This makes his answer composed of two parts or steps, namely: social life is a kind of somnambulism and society is the organization of imitativeness. This foremost definition, formulated in *The Laws of Imitation*, will maintain its basic structure all along Tarde’s works, but it will be specified, deepened and elaborated over time. That will occur especially when, in *The Social Logic*, he integrates the study of social organization to his elementary sociology (orientated toward the study of social life in its movement and proliferation). There, Tarde introduces the social logic, engaged in addressing the articulation of beliefs (or “social intelligence”), and the social teleology, which investigates the articulation of desires (or “social willingness”). It is worth pointing out that a social logic, to be such, must include the treatment of the illogical, and that a social teleology has to deal “not only with the accordance of means and aims, but also with the discrepancy of aims among them” (Tarde, 1985b:18).

The answer of this infinitesimal sociology to the question about society has then at least three fundamental components: social life, imitation or somnambulism, and organization (logical and teleological). Firstly, let us resume the issue of imitations since they are the regular elemental forces of social life – while inventions would be its guiding ones. As we have seen, imitation here is an “action at a distance” from one brain over another, which consists in the transmission of a model or a cliché. Now we can add that the key of this transmission is the subjugating character of the models it promotes. This character makes all invention/model propagate in the manner of a contagion. That is to say, in the manner of an involuntary communication process able to produce truly epidemics. Therefore, Tarde could write: “what binds men together is
dogma or power”. Here dogma refers to the kind of social relation established by the propagation of logical inventions (e.g. a religion or political ideology), and power refers to the relations established by the propagation of teleological ones (e.g. a governmental or industrial technique). Both kinds of contagions are reunited by Tarde in the concept of imitative diffusion. This is why the whole quote reads “imitation is a social bond because what binds men together is dogma or power” (Tarde, 1890: 11). From the most trivial face-to-face interactions to the establishment of a national government, and from there to the formation of large empires, passing through the influence of some cities over other ones, as well as in the formation of publics and multitudes, Tarde always finds command and obedience relations. Certainly, this is not the grand Marxist polarity where some dominant classes submit the block of subjugated ones by the yoke of economic exploitation, State military force and ideology’s counterfeit coin. We are not in front of the Hegelian master/slave dialectic, either. Because although in Hegel subjectivity formation entails a struggle among two for pure prestige – for desire of the other’s desire, as Kojève (1947) will say –, this is a struggle for death. That is, the component of violence has a structural function as reinsurance, and even as operator of recognition. Finally, we are not facing the war model (Nietzsche/Foucault hypothesis), where the mnemo-techniques that subjectifies and subdues bodies are physically coercive. In Tarde, the imitative relation has an imperative character because it is a hypnotic relation. The magnetizer-magnetized nexus investigated in psychiatric cabinets of his time by physicians such as Charcot and Freud, offers him the paradigm of socialization and the key of the elemental social bond. Hypnosis is here an asymmetric relationship in which the magnetized acts in accordance to her magnetizer’s designs, and she doesn’t do so because of interest, necessity or coercion but rather because of fascination – defined by Tarde (1890:87) as “real neurosis, kind of unconscious love and faith polarization”. The most significant difference between what occurs inside and outside these cabinets, is that outside them the hypnotic bond is reciprocal. Social life, in its associative and re-productive aspect, would not be other thing than the mirror interplay among fascinators and fascinated ones, which in turn fascinate. That is to say, it is a dense synaptic fabric of asymmetric suggestions, as universal as reversible. Thereof, Tarde could have been able to affirm that social state is analogous to somnambulism, and that social life is a network of mimetic suggestions.

Now, properly speaking, that contagious associative wefts are not organized. The courses of its flows, as well as their velocities, are multiple and non-convergent per
se. On the other hand, as we saw, social life’s processual dimension does not only concern imitative propagations, but it also implies innumerable oppositional interferences and inventive co-adaptations with neither global rhythm nor unified directions. (That is why, following this micro-socio-logic in a strict manner, Deleuze and Guattari (1987) will say that in a society everything escapes.) Nevertheless, that chaotic exuberance is somehow articulated, and this is why social sciences and humanities can talk about regularities, institutions, and even about social systems. But in the case of Tardean sociology, these notions acquire a very different sense from that one attributed both by individualisms and holisms of any kind. Here institutions are not operational rules chosen by individuals, nor closed systems which preexist and determine them. Instead, they are sets of propositions and projects or aims that co-adapt diverse social flows, giving certain coherence to social life. Language, religion, science, industry, law, art, politics, the economic market, are nothing but sets of this kind. In them, different types of judgments and passions which, arising from social field as inventions, co-adapt among themselves --i.e. are articulated in as specific as diverse manners. This means that language, religion, science, etc. are no other thing than sets of action, intellection and affection models which are repeated from one individual to another, and that only exist in those repetitions.

This corpuscular language can, and must, be translated to an undulatory one: what we call institution is nothing but the provisional and unstable co-adaptation of chaotic and scattered social flows which, logically and teleologically integrating themselves, achieving certain coherence, organization and regular speed. This relative systematization of the social field depends on the inventions’ capacity to accumulate one with the others. Institutions are not something different. Through the integration of differences, they do not only systematize disperse flows but they also disarticulate antagonisms. That is why, according to Tarde, every political, moral, aesthetical, technical complex of inventions tends to create social harmonies.

The multiple co-adaptations of some of those logical and teleological sets enable this sociology to speak of societal groups. Tarde denominates group to “the community of a same type of civilization which supposes a set of economic, legal, moral, religious, scientific, political similarities combined with shared psychological characters and an air of national family” (Tarde, 1899:178). This means that there would be nothing such a sui generis and transcendent collective conscience in relation to individuals. We can talk about institutions as systems, and about societal groups as systems of systems, but
only under the condition of considering that we are referring to the poorest, most stereotyped, and least dynamic dimension of social life. But also under the condition of radically re-defining what is understood as system. As we have just seen, a societal system – whether local, regional, national or global – is an accumulation of co-adapted inventions which only exists in its reproduction from one individual to another. And this occurs in a manner that is not distinguishable from the interactive process it regulates. That is to say, every societal ordering is immanent to the trans-individual relations it organizes. One of the main traits of these systems is the contingency of both its specific configuration and duration. It so happens that the event of its integration could have occurred or not, and it could have certainly occurred in a different manner with other results. And something as such can be said in regards to its duration: all societal system puts its existence at stake in each of the individuals through which it passes and reproduces itself, each time it does so. The miniscule is that crucial for Tarde. It is worth underlining also that these systems’ systematicity is always partial. This is due to the fact that they are integration processes of elements which have both heterogeneous origins and dynamics, and that they remain heterogeneous even when integrated. It is clear that this processual integration cannot happen without certain homogenization of those elements – without a codification and territorialization of their differences, to say it as Deleuze and Guattari (1987) do. However, this does not turn differences into identities, but rather into repetitions. That is to say, into iterated propagations of a difference. Furthermore, all systems are unstable sets in motion since they co-adapt differential elements which are themselves in movement and transformation (i.e. fluxes). They are then open complexes of shifting relations that partially link open and changing relations (relations which are in turn always connected to others not comprised by the system in question). Finally, these systems can co-adapt, and also oppose or ignore each other. But even in the case of co-adaptations among them, none can determine all the others –not even ultimately. If there is something such as a society, it is then a whole much smaller than the sum of its parts.

As a result, sociology’s habitual objects –from societies to individuals, passing through structures or systems of any scope– turn into particular configurations of infinitesimal psycho-social currents, always subjected to coherence, intensity and velocity variations. Then, the systems usually called institutions ought to be described as slow and regular movement configurations. That is to say, as manners of doing, feeling and thinking which re-produce in each individual with relatively moderate
rhythm and average intensity. This is what Tarde calls traditional imitation. Now, it occurs that the social field is also ploughed by more rapid and intense flows able to destabilize these institutional systems, to put them “out of themselves”. These currents are named fashions by Tarde, and we can assert that the kind of association they produce does no longer give rise to individuals or to groups either, but rather to multitudes. Rapid flows of opinion, faith, love or hate, are multitudinary and multitudinarizing flows. That is, modes of relation able to destitute institutions. But there is something more: they are also able to institute new ones since a fashion can become tradition.

Because of all that, we should talk of ensembles rather than of systems, as Tarde actually did, and instead of considering them as totalities, we should think about them as un-wholes. Moreover, we can denominate social to the multiple field of infinitesimal flows where these ensembles are made, transformed and unmade. These ensembles, on the other hand, can be qualified as societal to indicate social flows’ composition and deceleration –something that Deleuze calls stratification. This social/societal differentiation, not done but enabled by Tarde, might result useful to point out that social life is just one but that it assumes at least two kinds of dynamics and configurations. The relation between them can be thought with the (infinitesimal) model of the relation between the finite and the infinite. Thus, while the social remits to the fluid and virtually unlimited field of infinitesimal currents which, with variable intensities and velocities, propagate, interfere and conjugate among each other; the societal remits to the (finite) series of those currents’ partial articulations or ensembles.

Hence, for social life’s (micro)analysis two interrelated instruments are required: the differential sociology of its dynamics (elemental sociology) and the integral sociology of its compositions (with its two branches: logic and teleology). “One shows how social tissues, rather than social bodies, are formed, how the social fabric, rather than the national clothing, is manufactured; the other one deals with the manner in which those tissues are organized, the way in which that fabric is cut and sewed, I mean, the manner in which it cuts and sews itself” (Tarde, 1895a:12). Then, the science of social flows, their infinite variations and their infinitesimal dispersion must also be the science of their integrations, co-adaptations or societal assemblages.

The wave and the particle (as a way of concluding)
Macro-physical human sciences, if that could be said, have found regularities behind individual behaviors’ errancy and diversity, and they have wanted to formulate models and laws to describe and explain those regularities. But they have then reified their own generalizations, attributing the discovered regularities whether to the interaction of individuals or to the social systems understood as transcendent or supra-individual entities. Tarde willingly accepts that there is no science of the singular, and that, consequently, sociological knowledge’s object is that which repeats. However, he does not conceive repetition as a form of identity, nor identity as the *alpha and omega* of all the existing and the forthcoming, either. Being difference his starting (and arrival) point, the image of the world he proposed was not in accordance with the one delineated altogether by the Newtonian physics and by metaphysics from Decartes to Kant. His sociology of infinitesimal difference entails a subversion in the way of thinking the social which depends on that ontological and epistemological complex. Therefore, for social sciences’ main stream it is still difficult today to accept his basic assumptions and his radical corollaries. Nevertheless, it is necessary to add that when a subversion of similar characteristics occurred in exact and natural sciences, these disciplines were far away from turning their backs on it. Conversely, in social sciences, the 18th and 19th century prolonged until the late 20th century. And it can maybe be said that, their practices are still imprisoned of paradigms preceding 1905 –at least in that respecting their comprehension of time and space, unities, sets, and relations. On his part, Tarde was interested in those scientific references which would enable the emergence of “post-classical” physical and biological sciences. But his most secure supports and the most important sources of his sociological device were Leibniz’s monadology and the infinitesimal calculus. This is so because, among other fundamental things, both centrally involved the ideas of differentials or infinitesimals and of the actual infinite. Sociology’s main challenge would be then to work with these notions so as to make its own revolution. It is surely not a matter of directly and unequivocally applying mathematical analysis to the social field, if that could be done. It is not matter of using those methods just to measure empirical processes either. Instead, we ought to think as the infinitesimal calculus does, and transpose its double (differential and integral) method to the qualitative order of social theory. In doing so, we can expect to apprehend the finite in the infinite and the infinite in the finite at the level of social reality.

In the eyes of classical epistemologies, ruled by the principle of identity and equipped with static, clear and different concepts, all this turns out to be hardly
acceptable. Here, the infinitesimal thinking is seen as a confusing one because, among other things, the notion of infinite itself is considered a false concept. Reonuvrier (1875), fundamental reference for Durkheim, will for example say that there is nothing such as the repetition of a myriad of the infinitely small. In this, he is doing no other thing than following a long tradition which from Plato and Aristotle reaches Descartes. For the ones who followed this conviction, infinitesimal calculus is a foremost mathematical tool based on useful fictions but with no ontological value, or even epistemological one. Tarde, on his part, belongs to another lineage. One that, at least in what respects to philosophy and social sciences, can be correctly called minoritarian. It is a lineage which associates him not only to Leibniz’s name, but also to Giordano Brunos’s, De Causa’s and Spinoza’s as antecedents, to Cournot’s and Bergson’s as contemporaries, and to Deleuze’s and Latour’s as heirs. Regarding Foucault, we can still doubt to what extent he was in accordance with the ontology of infinitesimal difference, but what is clear is that, from the ‘70s on, his sociology was Tardean in its more important traits.

In my view, the logical starting point of this infinitesimal grammar is found in the concept of social life, which Tarde has more supposed than explicitly developed. Social life understood as the stream, confluence and interference of infinitesimal currents of belief and desire in permanent becoming. In other words, as a multiform field of psycho-social forces weaved by invention, imitation and opposition relations. The concept corresponding to the integration of those differential relations is the one of ensemble –widely elaborated by Tarde. A concept which anticipates Foucauldian devices and Deleuze’s assemblages since it is defined as the composition of heterogeneous elements that logically and teleologically co-function in a more-or-less concordant way. These ensembles, relations of relations, also relate among them, both to oppose and to compose in higher-grade ensembles (what in Tarde means of less vitality and less complexity). Not only groups and social systems, but also individuals are open and moving multilinear ensembles. All of them are integrations or co-adaptations of flows of diverse origins and directions, which in turn produce new flows. All of them are also constantly subject to infinitesimal variations caused by their iterated re-production and to decompositions produced by their multitudinuarization in fashions, rumors, currents of fear or hope, crowds and publics. They are also subject to the transformations caused by the reception of new flows coming from new inventions.
For this reason, Tarde will be able to say that social life is organized just to better disseminate.

Therefore, sociology must be, primarily, a science of undulations or infinitesimal flows, but also one of velocities and connections. It must study the trans-individual stream, by contact or at distance, of affirmations and denials, attractions and repulsions, obedience and resistance, that weave the weft of the social field. Here, it is a matter of going from the parts to the whole and of knowing that the whole is always an association in motion of parts, in motion as well. We also ought to accept that no set (no whole) is able to close over itself and totalize the elements which compose it, and that the parts can take part in other sets as well. The fact that those parts are also sets or associations of elements which are in turn associations, and so on and so forth, with no possibility of finding a simple and ultimate origin in any place or state, is also to be remembered. Where holism postulates organic or dialectic systems that are always larger than the sum of their parts, and where individualism finds additions of unities, this sociology claims that parts always exceed the ensemble they compose, which however is immanent to them.

Hence, infinitesimal methodology works in media res. It has to start by the middle of things since things are bunches of assembled relations, and it is neither necessary nor possible to determine their absolute beginning. Instead, as we saw, an archaeology, cartography and cinematic –especially a dromology– of their flows are possible and necessary. If we are to give an account of a certain socio-political configuration, for instance, we can start by one individual. If we resume the case of one of the aforementioned individuals (the Marxist-Christian one), and we now inform that he/she was born and lives in Nicaragua, we can follow her ethico-political beliefs. We can investigate their poly-genesis, map their diffusions, try to measure their intensities and velocities. They would re-conduct us to the history of 19th century revolutionary movements, more precisely to Marx’s and Engels’s writings and militancy, and from there to the continuous variations that Marxist ideas, passions and practices have had until reaching her. They would also lead us to Jesus himself as the inventor of the other creed at stake, and to the history of its diffusion throughout almost two thousand years. Regarding her tobacco use (because she smokes), this will remit us to the different routes and diverse uses it has had at least since European merchants took it from American to the Old Continent, and from there back to America where J. Buchanan
Duke would invent the industrial cigarette. In Latin America, Christianism and Marxism spread via different ways, each one with its own logic and teleology, at its own rhythms, until they co-adapted in the preaching and practices of individuals as Rubem Alves and Gustavo Gutiérrez Merino, giving rise to what was called theology of liberation. We could later try to identify and describe when, how and through which ways that invention spread from them in diverse imitative currents. These currents travelled both to the first individual mentioned (an engineer) and to other Nicaraguans (college students, households, peasants), partially associating and resembling them, changing in certain aspects their interactions, confronting them with other groups, and transforming their forms of government and statehood. That could be the history of Sandinist Nicaragua, at least in one of its seams. The same exercise could be done from an individual with neo-liberal (and neo-conservative) ideology, and we would be able to rebuild the socio-historical weft which gave rise to the invention of beliefs and desires she repeats in some of her practices, and which makes her participant of the network that goes from the Walter Lippman colloquium realized in Paris in 1938 to Donald Trump’s election as the United States President.

The aforementioned does not only help to illustrate a method –that which Foucault (1995, 1984) has developed with notable results, concentrating in the inventions themselves and generally disregarding the inventors; that is to say, being consistent with the method at stake. It is also useful to show that the individual and the society are neither the main categories nor the privileged objects of infinitesimal sociology. If both concepts are to play a role in the sociological discourse, this is to turn into that of what we must give an account. By doing so, the (panoramic) image we had of both when seen as sui causes will be changed completely.

1 For this reason, Newton named his method fluxion calculus, in it changing quantities were called «fluent» and their changing velocities were called «fluxions». Apparently, this denomination is partly due to his attempts to avoid infinitesimals. Regarding Leibniz, there is a discussion among specialists due to his contradictory affirmations concerning the real or fictional character of infinitesimals. For a historical approach of calculus, see Boyer (1959), and for a philosophical one see Brunschvicg (1912).

2 Reading this micro-sociology in an ethical key, Bergson (1959: 333) comments: “it gives us a strong responsibility sense by showing how any of our initiatives can prosper with incalculable consequences, how a simple individual action, falling in the social context as a stone in the water of a pond, completely shakes it through imitation waves which expand themselves”.

23
Societies function by the gathering or concurrency of desires, of necessities. Beliefs, mainly religious and moral ones, but also legal, political and even linguistic ones (…) are societies’ plastic forces. Economic or aesthetical necessities [desires] are their functional forces.” (Tarde, 1890:158)

“Every successful invention actualizes one of the thousand possible, or rather, given certain conditions, necessary, inventions, which are carried in the womb of its parent invention, and by its appearance it annihilates the majority of those possibilities and makes possible a host of heretofore impossible inventions. These latter inventions will or will not come into existence according to the extent and direction of the radiation of its imitation through communities which are already illuminated by other lights”. (Tarde, 1890:46)

For myth’s peace, Tarde understands that there can actually be, and in fact there are, brilliant inventors. That is to say, individuals who produce magnificent creations characterized not only by the outstanding originality of their combinations, but also by their complexity and richness. Nonetheless, he understands that we must not see them as exceptional individuals for their miraculous capacity to create ex nihilo. What is exceptional is the amount of accidental happenings that, so to speak, encountered in them by chance. They are individuals born with unusually powerful brains that must have counted on necessary cultural and social conditions, and on a rare vigor and tempering. Likewise, they must have also been located in a precise moment and place in order to constitute as the space of conjunction of pre-existing, not assembled repetitions. A true miracle.

For an analysis of Tarde’s micro-socio-logic grammar in Deleuze and Foucault, see Tonkonoff (2017).

As Virilio (1977), Tarde is conscious of the importance of trying to somehow measure the velocity of social communication. For both of them, “science” or “logic” of velocity must include an analysis of communication media in a sense as broad as possible (from postal mail, telegraph and roads to newspapers, radio, etc.), since these media largely determine the velocity of social life.

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