Chapter 6

Institutions and Interactions: On the Problem of the Molecular and Molar

Marc Schuilenburg

In a filmed interview with Claire Parnet, Deleuze gives the example of smoking in taxis to explain what 'jurisprudence' is (Deleuze 1997a: 'G'): a man sues the owner of a cab for the right to smoke in his taxi; the owner loses the case on the grounds that when someone takes a taxi, he is renting it, and the renter has the right to smoke in his rented location. According to the judge's verdict, the taxi is a rolling apartment, and the customer is the renter. Ten years later, Deleuze continues, the taxi is no longer seen in this way, it becomes assimilated instead to being a form of public service, and no one has the right any more to smoke in taxis. In response to Parnet, Deleuze points out that jurisprudence is 'a question of situations that evolve'. A clearer answer on the meaning of the practice of jurisprudence would be hard to find in his work. According to Deleuze, jurisprudence operates in concrete situations and on specific problems. It is 'law in action' (working case-by-case) and has the capacity to invent or create rights and rules. As such, the practice of jurisprudence 'deals with singularities' (Deleuze 1995: 153; 2006: 350) and concerns a process that is already active prior to its normalisation on the level of the law.

It is interesting to notice that in his book on Hume Deleuze draws a similar contrast between 'the law' and 'institutions'. For Deleuze, Hume's distinction between 'the law' and 'institutions', and his argument on the positivity of an institution rooted in the social world, imply a new conception of law, one more open to the psychological and social dimensions of humans (Dosse 2010: 113–14). The law, Deleuze writes in *Empiricism and Subjectivity*, is a 'limitation of enterprise and action, and it focuses only on a negative aspect of society' (Deleuze 1991: 45). Criminal law, for instance, does not tell us how to behave, but only which types of conduct are forbidden and the punitive response to wrongdoers. The assumption in classical punishment theory is that

effective punishment of the offender will deter the commission of further acts of harm against society (Beccaria 2009). Institutions, however, comprise 'the essence of society' and are 'a model of actions, a veritable enterprise, an invented system of positive means or a positive invention of indirect means' (Deleuze 1991: 45–6; 2004: 19–21). Given this conception of the social as 'profoundly creative, inventive, and positive', the law, Deleuze concludes, 'is not primary, it presupposes an institution that it limits' (Deleuze 1991: 46). In other words, the issue of law and order is a secondary issue. Initially there is the permanent process of creation and invention. Order and stability always follow later. They emerge from the dynamics within the social, as a temporary congealing point of continually branching series of relations that do not represent 'things', but events that never obtain their final meaning. This raises the question how such a combinatory of two levels proceeds.

Rather than tracing this combinatory between them through a judicial framework, I want to suggest that Deleuze's concepts of 'molar' and 'molecular' provide a way to answer this question in detail. Reading 'molar' for 'the law' and 'molecular' for 'institutions' (and 'jurisprudence'), enables us to see how at the most basic level of coexistence, interactions can cause the disruption of an existing social-cultural field, which subsequently develops in a way not laid down in advance or thought possible.[1] I would further suggest that this approach is best expressed in the work of the French sociologist Gabriel Tarde (1843–1904). The microsociology of Tarde is an important inspiration for Deleuze's concept of molecular processes, which have the potential to bring about significant changes on the molar level of the social order. Against this background, three problems need to be addressed. First, where the concepts of molar and molecular come from and how Deleuze and Guattari transform them into a sociological problem. Second, the way Tarde shows how to move from molar representations to molecular interactions (and the other way around). Third, the way in which the relation between the molar and molecular comes about in complex assemblages (*agencements*).

The Molar

The term 'molar' is used in physics, especially in the science of thermodynamics (the first science of complexity), which studies the interactions between large collections of particles on a macroscopic level. The term refers to the Avogadro Constant, a constant number of particles the value of which is 6.023×10^{23} mol^{-1} (like a dozen is 12 and a score is

20). This number of particles defines the amount of substance called the 'mole'. One mole of any substance is 6.023×10^{23} particles of it, which may be atoms, molecules, ions or electrons, depending on the substance. The Avogadro Constant is named after the Italian chemist and physicist Amedeo Avogadro (1776–1856), a specialist in the field of chemical gases, who discovered in 1811 that equal volumes of all gases under the same conditions contain the same number of particles. In other words, a mole of any gas always takes the same volume at a certain pressure and temperature. It is impossible to count such an enormous number of particles, but it can be weighed. A mole of any substance is that substance's atomic or molecular mass expressed in grams, and this mass is called the 'molar mass'. The number of moles of any substance is the amount of it (Beavon and Jarvis 2003: 20–1).

It's only a small step from Avogadro's number, which indicates the absolute number of molecules in one mole substance, to the approach taken in social scientific research to studying what Deleuze and Guattari in *Anti-Oedipus* call large 'molar aggregates' (*ensembles molaires*) (Deleuze and Guattari 1983: 181, 183, 340). These molar aggregates ('the state', 'society', 'the market', 'social classes', 'sexes') represent functional, stable entities or large-scale structures and have a specific use in social theory. According to Deleuze and Guattari, they 'presuppose pre-established connections that are not explained by their functioning, since the latter results from them' (Deleuze and Guattari 1983: 181). Simplifying social reality like this, scientists divide it into part–whole relations, which are presented as more or less homogeneous. This allows them to isolate and control specific matters. As a consequence, researchers study the parts in terms of what they contribute to the whole or 'any sort of original totality' (Deleuze and Guattari 1983: 42). In doing so, they make their object of research distinguishable from the rest of the world. They draw boundaries around that which is to be researched or scrutinised. The causes of what people do are then located in a system which is supposed to determine human behaviour, e.g. economic dynamics, culture, values, mentality, and so on. They are supposed to precede interaction and develop in a knowable and predictable way (Van Calster and Schuilenburg 2011).

In sociology, this is reflected in the work of one of the founders of French sociology, Emile Durkheim. According to Durkheim, a social fact, i.e. the description of what the social precisely entails or defines, is characterised by the power of external coercion it exerts upon individual behaviour, and the influence it has on personal attitudes or needs. An example of such a social fact is the language in which we speak and

communicate. After all, the language we learn to speak from birth is inescapably imposed upon us. It has a compelling and invisible force, so to speak, which no one can escape. According to Durkheim, a social fact is not only identifiable because of its external influence on what individuals do and say, it additionally has a reality of its own that cannot be reduced to the qualities of separate individuals. In other words, it is an independent entity that imposes certain views and ways of acting on the individual, which he or she would not have displayed spontaneously. From that perspective, a social fact is not only coercive and supra-individual, it can also be understood as objective (in the meaning of a 'thing') (Laermans 1995).

The characteristics of a social fact feature most clearly in Durkheim's thesis of a *conscience collective*, the largest common denominator of the content of the consciousness of individuals in a society. This collective consciousness manifests itself as a separate variable and forms the foundation for cohesion in a community. It not only generates emotions that are qualitatively different than individual perceptions, it has specific characteristics as well (Durkheim 1973). If we apply those characteristics to society itself, then society will have a reality of its own, a philosophical point of departure called 'realism'. In 'realism' society has its own nature. The independence of society as a whole brings forth convictions, norms, ideas and perceptions that are shared by the members of that society.[2] Although psychological insights about associations of individuals can be of importance for understanding changes in solidarity in a society, it is up to the science of sociology to subsequently study that solidarity as an independent social fact. This can be accomplished through scientific methods and models, as Durkheim demonstrates, which can be used to objectify and verify statistics about birth rates, marriage rates, suicide rates and criminality rates. It is possible to analyse the annual average of marriages, births, voluntary deaths and the degree of criminality, which expresses the collective consciousness or morality of a society as a whole, without discussing the related individual circumstances.

But, according to Deleuze and Guattari, this kind of thinking is trapped in a representational logic that does not acknowledge social reality as such. Behind the part/whole distinction lurks the hypothesis that parts exist because of the whole ('something that already exists'). Not only are they part of the whole, they maintain the whole in existence. Therefore, the problem of the molar is a sociological problem 'so long as the whole is considered as a totality derived from the parts, or as an original totality from which the parts emanate, or as a dialectical

totalization' (Deleuze and Guattari 1987: 44). In fact, there is no sort of evolution that will cause parts to form an integrated whole, any more than there is an original totality from which they can be derived. Instead of society being an organism or 'collective self', we must understand that every society is 'constantly escaping in all directions, never stops slipping away' and, Deleuze asserts in an interview with Paul Rabinow and Keith Gandal, is 'flowing everywhere' (Deleuze 2006: 280). From this point of view, the main emphasis is no longer on abstract quantities, but on the fluid character of social reality itself, what Deleuze and Guattari call 'the molecular'. This molecular medium (*milieu*) refers to 'singularities, their interactions and connections at a distance or between different orders' (Deleuze and Guattari 1983: 280). With a reference to the work of F. Scott Fitzgerald, they speak of subtle and supple (but no less disquieting) breaks, '*which occur when things are going well on the other side*' (Deleuze and Guattari 1987: 198).

The Molecular

The dominant position of molar thought in contemporary scientific research is not surprising. Social scientists, like all researchers, tend to break down reality into wholes that consist of parts in order to focus attention on 'large numbers and statistical laws' (Deleuze and Guattari 1983: 280). It is a molar approach, 'manifesting the statistical aggregate and state of equilibrium existing on the macroscopic level' (Deleuze and Guattari 1987: 57). However, social reality is much more complex than the molar approach can or will research. According to Deleuze and Guattari, the molar cannot be understood without the molecular. What the molecular offers, at a minimum, is 'an entire world of unconscious micropercepts, unconscious affects, fine segmentations that grasp or experience different things' (Deleuze and Guattari 1987: 213). As such, the molecular approaches the fluid character of social reality, which is always incomplete and cannot be made absolute in an all-encompassing whole.

If we again look at the way physics deals with the molecular, it first assumes that elements exist apart from each other and are constantly in motion (Kubinga 2003: 65). Physicists and chemists therefore speak of interactions between molecules (proteins, lipids, metabolites and so on). Although scientists consider the molecular as the most fundamental level of interaction, they recognise that information in this area is still poor and incomplete. Specific knowledge as to why interacting molecules group into spontaneous order is lacking (Sijbesma 2007). Nature

offers nice examples of such ‘self-assemblage’ or ‘self-organisation’, by which molecules adopt a defined arrangement without guidance or management from an outside source. However, controlling the shape and structure of self-assembling systems still generates many questions.

From a philosophical point of view, it is clear that on the molecular level things are different than on the level of the molar, where concepts of ‘control’ and ‘functionality’ are predominant. This is important because the molecular composition is more concerned with flows (including poles, mutations, connections, accelerations, singularities and quanta), while the molar is about segmented lines, i.e. ‘the binary, circular, and linear’ (Deleuze and Guattari 1987: 209). Alliez (2009) is therefore right in stating that the molecular level revolves around ‘small complex relations’, rather than ‘huge dialectic structures’ that direct the whole. In terms of the social, it means that attention is turned to interactions that have no reference to a centre, standard or norm. The focus lies on ‘becoming’, as Deleuze and Guattari write in *A Thousand Plateaus*, and not on ‘being’ (Deleuze and Guattari 1987: 275, 277). Unlike with the molar, inhabited by unchanging essences or laws with a permanent identity, small changes can have huge and unpredictable effects on the molecular.

In developing this idea, I would like to distinguish three characteristics of the molecular. It is important to note that these characteristics do not present new abstract principles intended to provide a new representation of reality. Rather, they coincide separately with each ‘event’ or each ‘case’. First, the molecular is about the *immediate*. It deals with ‘beliefs and desires’ (Deleuze and Guattari 1987: 219) that represent the world ‘here and now’ and which transcend actions from a rational-calculating portrayal of mankind, as represented in the classical judicial works of Beccaria (2009) and Hobbes (1985). The latter assume that people prefer to choose an action (for example obeying rules or violating them) from which they think they will benefit. The problem with this approach, Deleuze states in his book on Hume’s empiricism, is that rationalism ‘expects ideas to stand for something which cannot be constituted within experience or be given in an idea without contradiction: the generality of the idea, the existence of the object, and the content of the terms “always,” “universal,” “necessary,” and “true”’ (Deleuze 1991: 30). As is well known, another problem with such rationalism is its all too narrow time-frame. After all, the effects of such a choice are spread over a long period of time. The immediate instead deals with interactions (such as pride, frustration, pleasure, anger, shame and so on) which exist in *real time*, that is here and now. From a molar

perspective these interactions are seen as exceptional and are largely kept outside 'the order of the discourse', to quote Foucault (1971). In fact, they fall outside the structural frame of uniformity or a knowable goal (Schuilenburg 2008; 2009: 210).

Second, the molecular is characterised by *heterogeneous* series that produce difference. Rather than representation by means of 'identity, opposition, analogy and resemblance' (Deleuze 1994: 137), a system of series is a differen*c*iating of differences by means of the coupling of heterogeneous series (whose elements are already heterogeneous). This actualisation is not a unilateral process, but rather the result of a whole series of mutually reinforcing effects, e.g. non-linear relationships, series of events and affairs, non-intentional acts and open series of interactions that lead in directions not previously agreed or established. As such, molecular relations are made possible by other acts making other acts possible in turn. They are in a constant state of flux and permit an infinite number of connections, creating with every connection something new. This means that – against the laws of classic causality – coincidence must be seen as a cause of social change(s).

Third, the molecular is about *perspectivism*, i.e. accepting that all truth can only be known in the context of one's own perspective. Perspectivism, which takes root in Hume's empiricism and Kant's idealism and was further developed by Schopenhauer and Nietzsche, rejects the idea of a specific interpretation of social reality that would be 'complete' or 'total'. Perspectivism claims that all knowledge is perspectival. Concrete circumstances and behaviour will always been seen from different viewpoints. Or, as Nietzsche points out in *The Will To Power*: 'In so far as the word "knowledge" has any meaning, . . . it has no meaning behind it, but countless meanings – "perspectivism"' (Nietzsche 1967: §421). Yet perspectivism has nothing to do with relativism. Perspectivism may develop sensitivity for different points of view or interpretations. It compels people to see the conditions and actual circumstances under which a certain view may appear.

In short, contrary to the molar, the molecular knows neither univocal definition nor individual boundaries. It is fundamentally ambiguous and paradoxical. Perhaps it is this intangibility that raises suspicion and mistrust among social researchers towards the idea of researching the molecular. Researchers in sociology and economics, for instance, tend to categorise interactions in terms of 'usefulness' and 'interest' for the larger whole (profit, sales, and so on). By so doing they focus their attention on the molar. Even criminologists who research group processes actually focus on the characteristics of a group, such as rivalry,

structure or leadership, which underline the static and therefore spotlight the molar. Hence instead of limiting sociology to molar structures, at least implicitly always based on a juridical model,[3] Deleuze wants to focus on the question of genesis or the emergence of relations through which existing structures are themselves constituted. For Deleuze, the work of Tarde bears witness to how the molecular, as opposed to molar aggregates, could lead to an understanding of the emergence of new social phenomena or new stratifications (see also van Tuinen 2009). What does this mean in terms of interactions between people of flesh and blood?

Tarde: Interactions

Whereas Durkheim, simply put, held that social facts should be analysed as separate entities, his contemporary and main opponent, Tarde, argued that sociology should focus precisely on the interpersonal interactions that provide society with some degree of social structure. In *A Thousand Plateaus*, Deleuze and Guattari compare the polemic between Tarde and Durkheim to the never-ending debate between Geoffroy Saint-Hilaire and Cuvier: 'the sweet and subtle Geoffroy and the rigid specialist Cuvier' (Deleuze and Guattari 1987: 45–7, 254–5). Both positions need not necessarily be diametrically opposed to each other. However, they do focus on a different field of research. Contrary to Durkheim's molar view, which concentrates on studying the shared convictions produced by a group or a collective as a whole, Tarde considers the interpersonal interactions themselves as a social fact worthy of scientific research. We should understand this to mean that the 'metaphysical meaning' Durkheim attaches to a social fact has no absolute validity or value to Tarde. One could say that Tarde's interests lie in the dynamics of social life. He thus draws our attention to an essential aspect that remains unanswered in Durkheim's thought, namely: How can so many different individuals together form one whole? Or, put differently: How can the 'similarity of millions of people' (Deleuze 1994: 313–14 n.3; Deleuze and Guattari 1987: 218) be explained?

Instead of disputing Durkheim's concept of social facts or questioning his scientific analysis of suicide, criminality, etc., Tarde uses a different approach. On the one hand he questions the rigidity of Durkheim's assumption of a collective whole that underlies a society's shared solidarity, morality and culture, on the other he asks how a social fact can exist outside the individuals themselves (see Rhoads 1991: 119). After all, Durkheim's postulate of a social fact is based on the never-tested

assumption that such a 'shared conviction' exists. Tarde does not deny the possibility of solidarity and morality between individuals, but he shifts the attention to how resemblances between individuals (that entail a degree of solidarity or morality) are brought about. Durkheim had simply assumed that resemblances multiply, and that these resemblances form a reality of their own that more or less transcends the individual level. Acting morally then simply means that someone subjects themselves to the force of a collective, which externally imposes rules, norms and codes on individuals. But that assumption, Tarde argues, is merely an 'ontological illusion', and basically implies a revival of Plato's doctrine of Ideas (Tarde 1969: 115, 117). Similar to Durkheim's social facts, Ideas to Plato represent eternal, stable and archetypical things that can only be known through spiritual experience. The Ideas themselves are not confined to matter, time and place, but lie in a higher world that, according to Plato, is fixed forever, and that leads an autonomous existence independent from thought.

Tarde, however, prefers, as he terms it, a 'pure sociology' or a 'general sociology' (Tarde 1962: ix–x) which interprets the general character of social interactions, and which can be applied to every social fact. He uses the term 'general laws' (Tarde 1912: 326) in that respect, when he discusses series of molecular interactions that are perpetual rather than temporary. Although the terms 'general laws' and 'general sociology' may seem to suggest otherwise, Tarde's method should not be defined as molar or structuralist (see Barry and Thrift 2007). While Durkheim places the emphasis of social science on structures underlying social relations (structures that are therefore not directly visible), Tarde shifts the attention to concrete relations between people. Thus before we can deal with the question whether an underlying structure exists, and, if so, how it affects daily life, we should – according to Tarde – explore how resemblances in the behaviour of all these different individuals, who constitute social life, develop. According to Tarde such resemblances are brought about by repetition. 'All resemblance is due to repetition', he writes in *The Laws of Imitation* (Tarde 1962: 14). This does not mean, however, that a linear process unfolds in which people repeat each other's behaviour continuously, or as a monomaniac would. In *The Laws of Imitation* Tarde also writes that 'repetition exists for the sake of variation' (Tarde 1962: 7), and a little earlier he postulates: 'resemblances and repetitions . . . are the necessary themes of the differences and variations which exist in all phenomena' (Tarde 1962: 6).

In his general sociology Tarde essentially attempts to find a mean between the Scylla of absolute relativism and the Charybdis of absolute

absolutism. In his approach, a society corresponds with a 'group of beings who are apt to possession of common traits which are ancient copies of the same model' (Tarde 1962: 68). In *The Laws of Imitation* he analyses such resemblances as series of imitations, which he links with notions such as somnambulism and hypnosis – frequently debated notions at the end of the nineteenth century. Entirely in line with his thinking, society then is 'imitation and imitation is a kind of somnambulism' (Tarde 1962: 87). The emphasis on somnambulism and hypnoses reappears in *Penal Philosophy* (Tarde 1912: 192–201), where Tarde discusses in detail the idea of hypnosis as 'the experimental junction point of psychology and sociology: it shows us the most simplified sort of psychic life which can be conceived of under the form of the most elementary social relation' (Tarde 1912: 193). In his later work, Tarde yields to a more abstract and horizontal approach to molecular interactions, which he terms 'repetition, opposition, and adaption' (Tarde 2000: 8). Proceeding from this conditional formulation of action, Tarde further stretches the notion of society. In *Monadologie et sociologie* he writes that 'all things are society and any phenomenon is a social fact' (Tarde 1999: 58), a view which Latour describes as a 'a flat society argument' (see Latour 2002).[4] In the framework of this chapter, however, it is important that, from Tarde's perspective of interactions, the Durkheimian issue of structure and order is a secondary one. Initially there is change, movement and difference (Tarde 1962: 71; Latour 2007: 13–16; Deleuze and Guattari 1987: 218–19). Order and stability always follow later.

Imitations and . . .

To find an answer to the question of how molecular interactions take place in general and, more specifically, with what variation, Tarde introduces a systematic distinction between processes of 'imitation' and 'invention': two series of interactions that each form a reality in themselves, but that also influence each other. Tarde defines imitation as the movement by which something is repeated and diffused (Tarde 1962: 17). In the preface to the second edition of *The Laws of Imitation*, he speaks of 'the action at a distance of one mind upon another' and of 'every inter-psychical photography, so to speak, willed or not willed, passive or active' (Tarde 1962: xiv). Concretely, this means that people consciously or unconsciously imitate each other's behaviour. They copy certain methods or preferences which, for instance, may include the way they work (process or technique) or the way they dress (fashion), or the music (style) they prefer. But imitation is found in smaller things

as well, in the minute adjustments in behaviour when youngsters copy each other's body movements, for example, or when they adopt certain expressions.

Here it is important to note the branching character of series of imitations. This means that in the dissemination of behaviour, all kinds of *new* series will form that may produce *new* relations, which in turn may generate other series of imitations. Adding new series to existing ones leaves open the possibility of creation, and keeps the social-cultural field in motion and thus alive. This, according to Tarde in *Penal Philosophy*, is how criminality should also be approached, that is, as 'a phenomenon of imitative propagation' (Tarde 1912: 362). Forms of criminality spread 'like every industrial product, like every good or bad idea' (Tarde 1912: 338). Tarde does not claim here that criminality can be studied as a separate entity, independent from other developments in society. The question, he states, is

> whether the many other phenomena of imitative propagation, which taken all together are called civilization . . . foster or impede the progress of the propagation of crime. Or rather, the aim is to discover, if that were possible, which among these various spreadings of example which are called instruction, religion, politics, commerce, industry, are the ones that foster, and which ones that impede, the expansion of crime. (Tarde 1912: 362)

To elucidate the process of imitation, Tarde (1962: 140 ff) distinguishes two laws. He speaks of a 'logical law' when imitation starts from the idea that it will contribute to a higher objective, or because it is expected to solve a problem better than other inventions. More often than from rational or well-thought-out considerations, however, imitation takes place according to 'extra-logical laws'. In these laws the emphasis is on cultural elements, but psychological and sociological influences also play a role. Tarde shows that certain forms of crime occur increasingly frequently as the number of interactions between different people also increases (through processes of urbanisation, for example, or following the move from the aristocracy to the bourgeoisie). He exemplifies this with the notorious case of the nursemaid Henriette Cornier, who in 1825 decapitated a nineteen-month old child. Cornier took the girl into her room and sliced her head off with a big knife. When the mother came looking for her daughter, Cornier took an apron, put the head in, and threw it out of the window, because, so she said, 'the idea presented itself'. Not long after that, other nursemaids also yielded to an 'irresistible impulse to cut the throats of their employers' children' (Tarde 1912: 340).[5]

. . . Inventions

With the term 'general laws' Tarde indicates that the process of imitation not only plays a role in social life, but also in other areas, such as geology, astronomy and chemistry. But even though he refers to these laws as 'general', their effect is different in each area. The process of invention is distinctive in this regard. An invention is not social until it is imitated in social life, Tarde writes in *Social Laws* (Tarde 2000: 23, 78). From a societal point of view, inventions that are not imitated are not relevant (Tarde 1912: 396 n.1). This means that an invention does not produce effects until it is included in series of imitations 'which have fallen one after another into the domain of the commonplace, the traditional, and the customary' (Tarde 1912: 118). This involves small and large imitations; imitations that take place short-term and long-term.

Tarde (1969: 153) defines an invention as the combination of dissimilar imitations. For inventions, too, branch into series, according to Tarde, like links in a chain with 'highly variable intervals, sometimes of a few days or months, sometimes of several centuries' (Tarde 1969: 160). They merge into series of imitations, as a result of which they expand like an oil stain, leading a social-cultural field to increasingly achieve sameness. How are we to understand this? Inventions spread, to use one of Tarde's favourite analogies, like ripples in water, moving steadily towards the shore until they hit an obstacle. According to Tarde, that obstacle will often be the imitation of a previous invention, and their collision (in dialectic terms: 'opposition') will generate a new product, that is, a new invention which in turn may be imitated, until it too hits new obstacles (Tarde 1969: 21). Extending this analogy, society is one large irrigation system, with constantly moving currents, undercurrents, and counter-currents (Van Ginneken 1992: 200).

Although invention and imitation are not to be considered hierarchical opposites (as they are mutually influencing forces), in his approach to inventions Tarde seems to adhere to the classical notion of 'genius' as found in, inter alia, Kant's *Critique of Judgment* (1790). To Kant, a genius is characterised by an autonomous creativity (autonomy meaning literally 'self-legislating'). He appreciates positively what others consider to be merely coincidental or trivial. In a similar fashion, Tarde attributes inventions more than once to the ability of 'true great men'. In *Penal Philosophy*, for example, he asserts that such people can reform the crowd and gradually make it conform to themselves (Tarde 1912: 164–5). At the same time, for Tarde, this rationalist

view only partly explains why we are 'more imitative than innovative' (Tarde 1962: 98). Contrary to the more rationalist approaches of Durkheim and Weber, Tarde, following Théodule Ribots' *Essai sur l'imagination créatice* (1900), also points to other factors that influence the generation of new inventions, such as emotion or desire ('fear or anger, sadness or joy, hate or love') (Tarde 1969: 150). In *The Laws of Imitation*, therefore, he refuses to distinguish between conscious and unconscious inventions:

> I have certainly applied this name [invention] to all individual initiatives, not only without considering the extent to which they are self-conscious – for the individual often innovates unconsciously, and, as a matter of fact, the most imitative man is an innovator on some side or another – but without paying the slightest attention in the world to the degree of difficulty or merit of the innovation in question. (Tarde 1962: xiv)

Nevertheless, Tarde seems to imply that an invention is a strictly individual matter, while imitation requires two separate individuals. In other words, to what extent is Tarde's approach nothing but a plea for practising psychologism or spiritualism? In *Difference and Repetition*, Deleuze refutes the criticism that a psychology lay hidden behind Tarde's sociology. According to Deleuze, Tarde realises a '*microsociology*, which is not necessarily concerned with what happens between individuals but with what happens within a single individual: for example, hesitation understood as "infinitesimal social opposition", or invention as "infinitesimal social adaptation"' (Deleuze 1994: 314 n.3). With this, according to Deleuze, Tarde demonstrates that besides the issue of structure, there is always a second issue. More than on the molar level of order and stability, this involves a 'molecular' level, which has a very different rhythm and speed. This level is not necessarily manifest or noticeable. Conversely, it does have the strength to destabilise, break open and transform a social-cultural field.

What Difference Does it Make?

Although Deleuze and Guattari write that the division between the molar and the molecular is meant 'to isolate two different processes' (Deleuze and Guattari 1987: 212), it would be a mistake to see the molar and molecular as two separate levels of existence: 'molecular escapes and movements would be nothing if they did not return to the molar organizations to reshuffle their segments, their binary distributions of sexes, classes and parties' (Deleuze and Guattari 1987: 216–17).

As Tarde showed so eloquently in his work on interactions, they coexist and revolve around the interaction between stability ('imitation') and transformation ('innovation'). Change or transformation can therefore emerge out of even the smallest expression or gesture of an arbitrary actor. Such an approach, which already works brilliantly in the beta sciences, is underdeveloped in the field of social sciences. Maybe this is caused by the view that the molecular is confused with a minimal order or – even worse – conceived as chaos and disorder.[6] Perhaps researchers assume that the molecular is capable of neutralising the molar? In that case, the force of the molecular would be more powerful than that of the molar. It may be clear by now that these assumptions are misconceptions. It is not about the molecular as chaos or revolution, nor about the molar as dogmatic and conservative. Let us therefore remove four errors concerning the difference between both levels.

First, the molar and molecular do not refer to 'the collective' on the one side and 'the individual' on the other (Deleuze and Guattari 1983: 280). In reality, both levels are not distinguishable in terms of size or scale. It would be better to speak of a difference in composition, organisation and consistency between the elements on each level. The molar and molecular are not defined by the amount of elements that they bring together, and therefore not by their multiple characters, but by the nature of the relationships between their elements. In the case of the molecular, its features are nomadic, rhizomatic, many-voiced, smooth, intensive and indivisible. The molar is connected with features that are sedentary, arborescent, unanimous, striated, extensive and divisible (Deleuze and Guattari 1987: 33, 505).

Second, the distinction between molar and molecular is not one between form and substance. In fact, both operate through form and substance. 'Substances are nothing other than formed matters' (Deleuze and Guattari 1987: 41, 57). Earlier I suggested that the molar concerns the whole and its isolated and controllable parts. That means the molar is more visible, because its actions are (at first sight) fixed and framed by univocal and compelling laws and regulations. However, it would be a mistake to reduce the molar to an abstract or judicial form (for example Hobbes' and Beccaria's *social contract* or Durkheim's *conscience collective*), which may be unrelated to human actions. In that case, the molar would be reassuring, while the molecular would be a matter of disruption. Each segmentation brings into play both forms and substances. As such, the molar is not an interaction-free structure or lacking in interactions. Characteristic for the functioning of the molar is the 'centering, unification, totalization, integration, hierarchization and finalization'

(Deleuze and Guattari 1987: 41) of the molecular by inserting it into larger wholes. Foucault (1975) would speak here of 'disciplinary techniques' (allocation, classification, consolidation, normalisation, etc.), to make visible the insertion of human activities in the institutions of the disciplinarian society, in its schools, prisons, factories, hospitals, army barracks.

Third, the two forms are not distinguished by the size of their elements, as a large form (molar) and a small form (molecular). That would mean dealing with social institutions and the state at the macro level and with a micro-politics involving a theory of human agency at the micro level.[7] In the words of Deleuze and Guattari: 'Although it is true that the molecular works in detail and operates in small groups, this does not mean that it is any less coextensive with the entire social field than molar organization' (Deleuze and Guattari 1987: 215). Essentially what they are arguing here is that the two levels must be treated as relative to a particular scale. As a simple example of this, one can look at a person as a molar identity if studying the beliefs and desires out of which he or she individuates. But a person can at the same time be considered on a molecular level in relation to the organisation he or she is a part of. In fact, the movement of the molecular combines to produce molar entities which in turn re-act on the molecular, forcing it to change and adapt.

Fourth, the difference between the molar and the molecular is not an absolute or a 'dualist opposition' (Deleuze and Guattari 1987: 34). There is no Chinese wall between them. In fact, neither can exist independently of the other. To put this differently, 'there is not one molecular formation that is not by itself an investment of a molar formation' (Deleuze and Guattari 1983: 340). Both levels are 'constantly interfering, reacting upon each other, introducing into each other either a current of suppleness or a point of rigidity' (Deleuze and Guattari 1987: 196). As a consequence 'their disjunction is a relation of included disjunction, which varies only according to the two directions of subordination, according as the molecular phenomena are subordinated to the large aggregates, or on the contrary subordinate them to themselves' (Deleuze and Guattari 1983: 340–1). So everything always functions at the same time ('and-and') and in parallel. Although both levels are usually studied separately (as if concerning two different kinds of social reality), both are intertwined in a single process. The two levels are constantly running into each other and are connected in what Deleuze calls a 'zone of indiscernibility' (Deleuze 1997b: 78), a play of forces, which he characterises as pure intensity.

Assemblages

It is important to recognise that the molar is only one way of looking at social reality. At the same time, paying attention solely to the issue of functionality and stability leads to a drastic simplification of that reality. Then, the molar is affirmed as the positive general, without taking into account what occurs at the molecular level: the immediate, unpredictable and heterogeneous. It is striking that the molar approach cannot encompass these matters and leaves them out of its research framework. The consequence of this is that the molar only manages to grip of a small part of the question at hand in social reality. For that reason it needs to put its own position in perspective. Moreover, it should address a more permanent and dynamic system that is difficult or impossible to formalise, i.e. that cannot be interpreted in terms of mandatory categories or abstract forms, structures and properties (Schuilenburg and Van Calster 2010). In fact, the more molar an organisation is, the more it induces a molecularisation of its own elements, relations and elementary apparatuses. This raises the question of how the complex relation between the molecular and the molar can be understood.

As mentioned earlier, a whole or totality consists of a collection of heterogeneous elements that relate to each other. This implies a certain consistency and coherence. Viewed from a molecular perspective, a whole is always an open set or combination because the different elements are related to specific circumstances and are constantly mediated by the relations between them. In a philosophical sense, this means that an element is immanent to specific and local conditions and the relations in which it exists. In fact, essence and unity are replaced by a dynamic 'middle' that connects different elements to each other. This 'middle ground' is 'not an average' (Deleuze and Guattari 1987: 293) or principle that gives reality a new direction and unity, but a process where new relations pop up and connections are made.

In a more general sense, the middle is related to the changing conditions by which something new can appear and with everything that differs. Illustrative for the middle is the verb 'connect'. This principle can be physical, linguistic or conceptual, and ensures that elements are connected together into a larger whole. Especially important here is that at any time a connection can ensure that a separate element changes, and as a consequence so does the whole. Moreover, the connection makes it possible for new elements to be taken up in a whole and old elements to disappear or be plugged into a new whole in which the interactions are different. One element may dislodge and go on to function in another

assemblage. It can be taken out of one assemblage and incorporated in another context (DeLanda 2006; Schuilenburg 2009). In turn, this context is formed by new variables, unforeseen interactions and other outcomes. This guarantees that 'the whole' can change constantly. Or, put another way, the dynamic between the elements at a molecular level allows for the possibility that the interactions between different parts may result in new syntheses.

If we translate this 'principle of connecting' in terms of relations between the different elements of the molecular, this means that each interaction ensures that a social field goes adrift, meaning that an existing field of organisation is broken up and moves in directions which are not formally established or legally regulated. Relations are in fact always in the middle and with each connection create something new. In this respect, they mediate the elements in the whole permanently. It is therefore important to understand that relations exist before they connect elements and continue to exist if elements become detached from the whole. In that sense, they are external to the elements and remain in force after certain events have occurred, specific forms or structures are created, or social acts are performed. This means that they cannot be traced to the elements they connect. Relations can change without the elements changing (Deleuze and Parnet 2002: 55). But also the properties of the elements do not explain all the relations that give the whole a certain autonomy. In this light, the elementary social fact is not the individual or the whole, but a molecular series of interactions that produce a difference; movements that differentiate something qualitatively and quantitatively (Barry and Thrift 2007).

It will be obvious by now that we are far removed from the classical way of considering meaning or purpose, in which the human subject is at the centre of attributing meaning and purpose, a logic inspired by Descartes' magical maxim 'I think, therefore I am'. In this way of thinking, the actions of a person are the product of a free, autonomous and immutable actor. This individual is in opposition to his immediate environment without forming part of it. From an external position he can comprehend and grasp social reality in its entirety. However, given the relation between the molar and the molecular we should assume that interactions cannot be reduced to the action of the individual, that is, of the substance or subject it refers or is ascribed to. The interaction is an autonomous process, which makes discerning causes or consequences problematical. Moreover, the relation between cause and effect is ambiguous and difficult to determine. Order and unity are therefore not provided *a priori*. They emerge immanently 'from below', from

interactions on a molecular level, rather than being constrained from above by large molar aggregates.[8]

Conclusion

Deleuze employs the distinction between 'the law' and 'jurisprudence' in different ways. Although, this relation never received the attention in his philosophical work as, for example, did painting, cinema and literature, there is a consistent treatment of the theme throughout his work (see also de Sutter 2008; Lefebvre 2008). Whereas 'the law' corresponds with a Durkheimian strand of thought, in which social reality is identified with great collective or molar representations, 'jurisprudence' can be characterised by the work of Tarde, where emphasis is placed on molecular flows and fluids as the reality. Against this background, a simple opposition between both positions is misleading for they always overlap and become entangled. The point is one of knowing 'how to move from molecular perceptions to molar perceptions' (Deleuze 1993: 87). It is clear that this cannot be understood through a process of totalisation in which the parts form a whole or any sort of original totality. In fact, we are dealing with 'two segmentarities simultaneously: one molar, the other *molecular*' (Deleuze and Guattari 1987: 213). Far more than focusing on the molar level in isolation, therefore, we must also look at the molecular level and its ever-emerging effects. For even when everything appears to function well, the smallest of actions and passions may have unexpected consequences on the molar level. Or, in the words of Deleuze and Guattari: 'Good or bad, politics and its judgements are always molar, but it is the molecular and its assessment that makes it or breaks it' (Deleuze and Guattari 1987: 222).

References

Alliez, E. (2009), 'Gabriel Tarde', in G. Jones and J. Roffe (eds), *Deleuze's Philosophical Lineage*, Edinburgh: Edinburgh University Press.

Barry, A. and N. Thrift (2007), 'Gabriel Tarde: Imitation, Invention and Economy', *Economy and Society*, 36 (4): 509–25.

Beavon, R. and A. Jarvis (2003), *Nelson Advanced Science: Structure, Bonding and Main Group Chemistry*, Cheltenham: Nelson Thornes.

Beccaria, C. (2009 [1764]), *On Crimes and Punishment*, New Brunswick, NJ: Transaction Publishers (fifth edition).

de Sutter, L. (2008), *Deleuze: La pratique du droit*, Paris: Michalon.

DeLanda, M. (2002), *Intensive Science and Virtual Philosophy*, London: Continuum.

DeLanda, M. (2006), *A New Philosophy of Society: Assemblage Theory and Social Complexity*, London: Continuum.

Deleuze, G. (1988), *Foucault*, trans. S. Hand, Minneapolis: University of Minnesota Press.
Deleuze, G. (1991), *Empiricism and Subjectivity: An Essay on Hume's Theory of Human Nature*, trans. C. Boundas, New York: Columbia University Press.
Deleuze, G. (1993), *The Fold: Leibniz and the Baroque*, trans T. Conley, Minneapolis: University of Minnesota Press.
Deleuze, G. (1994), *Difference and Repetition*, trans. P. Patton, New York: Columbia University Press.
Deleuze, G. (1995), *Negotiations 1972–1990*, trans. M. Joughin, New York: Columbia University Press.
Deleuze, G. (1997a), *L'Abécédaire de Gilles Deleuze* (DVD), Paris: Montparnasse.
Deleuze, G. (1997b), *Essays Critical and Clinical*, trans. D. Smith and M. Greco, Minneapolis: University of Minnesota Press.
Deleuze, G. (2004), *Desert Islands and Other Texts, 1953–1974*, trans. M. Taormina, New York: Semiotext(e).
Deleuze, G. (2006), *Two Regimes of Madness: Texts and Interviews 1975–1995*, trans. M. Taormina, Los Angeles/New York: Semiotext(e).
Deleuze, G. and F. Guattari (1983), *Anti-Oedipus: Capitalism and Schizophrenia*, trans. R. Hurley, M. Seem, and H. R. Lane, Minneapolis: University of Minnesota Press.
Deleuze, G. and F. Guattari (1986), *Kafka: Toward a Minor Literature*, trans. D. Polan, Minneapolis: University of Minnesota Press.
Deleuze, G. and F. Guattari (1987), *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. B. Massumi, Minneapolis: University of Minnesota Press.
Deleuze, G. and C. Parnet (2002), *Dialogues II*, trans. H. Tomlinson and B. Habberjam, New York: Columbia University Press.
Dosse, F. (2010), *Gilles Deleuze and Félix Guattari: Intersecting Lives*, New York: Columbia University Press.
Durkheim, E. (1984 [1893]), *The Division of Labor in Society*, New York: Free Press.
Durkheim, E. (1973), *On Morality and Society: Selected Writings*, Chicago: University of Chicago Press.
Foucault, M. (1971), *L'ordre du discours*, Paris: Gallimard.
Foucault, M. (1975), *Surveiller et punir: Naissance de la prison*, Paris: Gallimard.
Foucault, M. (2003), *Abnormal: Lectures at the Collège de France 1974–1975*, Picador: New York.
Ginneken, J. Van (1992), *Crowds, Psychology, and Politics, 1871–1899*, Cambridge: Cambridge University Press.
Guattari, F. (2009), *Chaosophy: Texts and Interviews 1972–1977*, Los Angeles: Semiotext(e).
Hobbes, T. (1985 [1651]), *Leviathan*, London: Penguin Books.
Kubinga, H. (2003), *De molecularisering van het wereldbeeld*, Deel I., Hilversum: Verloren.
Laermans, R. (1995), 'Sociologie vandaag: enkele stellingen en notities', *Tijdschrift voor Sociologie*, 16 (2): 133–41.
Latour, B. (2002), 'Gabriel Tarde and the End of the Social', in P. Joyce (ed.), *The Social in Question: New Bearings in History and the Social Sciences*, London: Routledge.
Latour, B. (2007), *Reassembling the Social: An Introduction to Actor-Network-Theory*, New York: Oxford University Press.
Lefebvre, A. (2008), *The Image of Law: Deleuze, Bergson, Spinoza*, Stanford: Stanford University Press.
Nietzsche, F. (1967), *The Will To Power*, trans. W. Kaufmann and R. Hollingdale, New York: Random House.

Prigogine, I. and I. Stengers (1984), *Order Out of Chaos: Man's New Dialogue with Nature*, New York: Bantam Books.
Rhoads, J. K. (1991), *Critical Issues in Social Theory*, University Park: Pennsylvania State University Press.
Schuilenburg, M. (2006), 'De kracht van een revolutie. Mensenrechten en de democratie', in R. de Brabander (ed.), *Het Uur van de Waarheid. Alain Badiou – revolutionair denker*, Kampen: Ten Have.
Schuilenburg, M. (2008), 'The Dislocating Perspective of Assemblages: Another Look at the Issue of Security', in *Open. Cahier on art and the public domain*, 15: 18–35.
Schuilenburg, M. (2009), 'Assemblages', in E. Romein, M. Schuilenburg and S. van Tuinen (eds), *Deleuze compendium*, Amsterdam: Boom.
Schuilenburg, M. and P. Van Calster (2010), 'Molair en moleculair onderzoek in veiligheidsstudies', *Panopticon*, 31 (4): 59–66.
Sijbesma, R. (2007), *Pakkende verbindingen. Zelf-organiserende moleculen voor functionele materialen*, Intreereden, uitgesproken op 23 februari 2007 aan de Technische Universiteit Eindhoven.
Tarde, G. (1912 [1890]), *Penal Philosophy*, Boston: Little, Brown, and Company.
Tarde, G. (1924 [1886]), *La criminalité comparée*, Paris: Librairie Félix Alcan.
Tarde, G. (1962 [1890]), *The Laws of Imitation*, Gloucester, MA: Smith.
Tarde, G. (1969), *On Communication and Social Influence*, Selected Papers, edited with an introduction by T. N. Clark, Chicago: University of Chicago Press.
Tarde, G. (1999 [1893]), *Monadologie et sociologie*, Paris: Les empêcheurs de penser en rond.
Tarde, G. (2000 [1898]), *Social Laws: An Outline of Sociology*, Kitchener, Ontario: Batoche Books.
Tuinen, S. van (2009), *Mannerism in Philosophy: A Study of Gilles Deleuze's Development of Monadology into Nomadology, of Leibnizian Approaches to the Problem of Constitution, and of Deleuze's Concept of Mannerism*, Dissertatie Universiteit Gent.
Van Calster, P. and M. Schuilenburg (2011), 'Governing Security: Including the Molecular into the Molar', in M. Hildebrand, J. Blad, M. Schuilenburg and P. Van Calster (eds), *Governing Security Under the Rule of Law?*, Amsterdam: Eleven International Publishing.

Notes

1. Deleuze changes his terminology in every one of his books. Very few concepts retain their names or identity. As DeLanda notes in *Intensive Science and Virtual Philosophy*: 'The point of this exuberance is not merely to give the impression of difference through the use of synonyms, but rather to develop a set of different theories on the same subject' (DeLanda 2002: 167).
2. We should not infer from this that a society exists eternally and completely on its own, as if functioning totally separate from the individuals who compose it. Durkheim opposes a transcendental view of society as an entity operating independently from its constituent individuals. To Durkheim, society, through the associations of individuals, brings about specific behaviours that together form a collective unity. In *The Division of Labor in Society* (Durkheim 1984), for example, he analysed the development of a moral solidarity in different types of society. While the primitive society enjoyed a mechanical solidarity based on equality, the modern society is characterised by an organic solidarity based on differences and inequality, caused by factors such as the new division of labour

and the strong growth of population that further increased the number of mutual interactions.

3. Here we can invoke Foucault's thesis concerning sovereign forms of power. As Deleuze writes in *Foucault*: 'What is common to both republics and monarchies in the West is that they raised the whole entity of Law to the status of the assumed principle of power, in order to give themselves a homogeneous representation of jurisdiction: the "juridical model" became the blueprint for all strategies' (Deleuze 1988: 30).
4. DeLanda speaks of a 'flat ontology of individuals' (DeLanda 2002).
5. Foucault (2003) treats the case of Henriette Cornier in his lectures of 5 and 12 February 1975, in which he investigates the formation of the concept of abnormality in the history of the modern West by the transition from 'the monster' to 'the abnormal'. One of the most interesting aspects of this case is the fact that there is no 'rational' explanation according to the law. Cornier had no motive, no reason, and no interest. But also, according to the indictment, Cornier shows none of the traditional signs of illness or madness. According to Foucault, the fundamental principles of the judicial apparatus and the penal mechanism are here 'questioned, challenged, disturbed, put back into play, cracked, and undermined by this nonetheless paradoxical thing of the dynamic of an act without interest that pushes aside the most fundamental interests of every individual' (Foucault 2003: 129).
6. The concept of 'molecular chaos' is, for instance, used in thermodynamics for the description of the behaviour of independent molecules before they collide (Prigogine and Stengers 1984).
7. The relativising of the distinction between a micro- and a macro-politics removes the conceptual mistake that there are only two levels of politics operating in social processes. Although in *A Thousand Plateaus*, Deleuze and Guattari still use the term 'microsociology' in honour of the work of Gabriel Tarde, their goal is to move the binary opposition between the macro and micro toward multiplicity and a generalised fragmentation. As Deleuze notes: 'The macro-micro distinction is very important, but it belongs more to Guattari than to me. I'm more about the distinction of two multiplicities. That's what I find essential' (Dosse 2010: 235–6).
8. Note the difference here with the position of Alain Badiou and Slavoj Žižek, who argue that change can only occur with a radically unpredictable, unknown and unknowable event, such as the French Revolution or the Cultural Revolution in China. By this, they undeniably maintain the modern view that in politics anything new can only emerge from an external event that is beyond any form of representation (Schuilenburg 2006).